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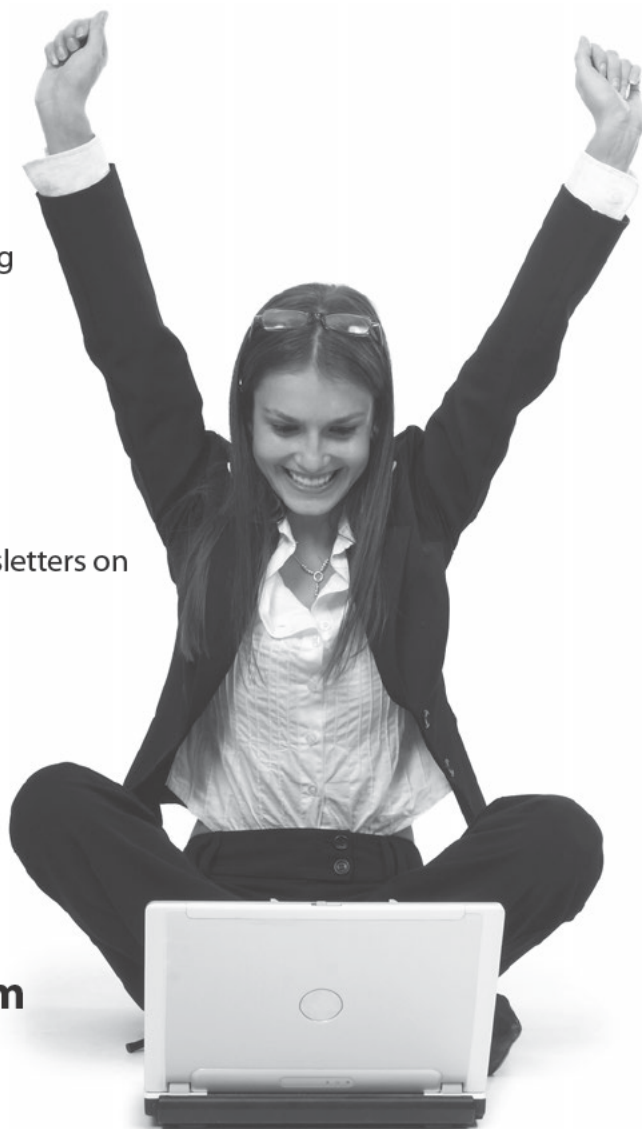
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# ***Weight Training***

FOR

**DUMMIES®**

**by Georgia Rickard, Liz Neporent  
and Suzanne Schlosberg**



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# Introduction

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**W**hen the first edition of *Weight Training For Dummies* was published in the US, lifting weights was on the verge of becoming a mainstream phenomenon. Women, Baby Boomers, seniors — all of these groups were starting to get the message: Hoisting hunks of iron benefits everyone, not just bodybuilders with shoulders wider than the wingspan of an aeroplane.

Today weight training has become even more popular. Most gyms now offer personal training, provide classes on weight training, and have their weight training section patronised not just by oversized men in training for roles in *The Incredible Hulk* — but women, too.

However, just because weight training has become more popular doesn't mean it has become any less intimidating for novices. It's only natural for a beginner to be baffled by the equipment and the lingo. You may look at a barbell and wonder how you're going to lift the thing while remaining on good terms with your lower back muscles. You may stare at a weight machine and wonder which end the homemade pasta comes out of. You may wonder what it means when a trainer says, 'Do three sets of eight reps on the Lat Pulldown and then super set with the Seated Row.'

In this second edition written specifically for Australians and New Zealanders, we don't just give you the knowledge and the confidence to start a weight training program either at home or at a gym. We also describe more than 150 exercises, including a combination of the latest moves and classic exercises, provide exercises suitable for novices and veterans alike, and update you on the latest in weight training equipment, websites, DVDs, research and gym classes. Plus, we address pressing questions, including:

- ✔ What's the key to building strength and tone without getting bulky?
- ✔ Can any nutritional supplements actually help you build muscle or burn fat?
- ✔ Which gives you better results: free weights or machines?
- ✔ Should you do yoga and Pilates in addition to weight training?
- ✔ Should you wear a weight belt and gloves or are these accessories just for show?
- ✔ Can you trust weight training information you read on the internet?

- ✔ How do you distinguish the qualified trainers from the quacks?
- ✔ What should you say if a fellow gym member asks to use the machine you're using?
- ✔ If you're overweight, should you lose weight before you lift weight?

In *Weight Training For Dummies*, we tell you about safe weight lifting techniques, steer you toward equipment bargains, entertain you with stories about fellow lifters and inspire you to keep pumping iron when you'd rather pump a keg and fire up the backyard barbecue. In fact, we take care of just about everything except lifting the weights. We figured we'd save that job for you.

## *What Weight Training Can Do for You*

We all have different reasons for wanting to lift weights. Undoubtedly, many of these reasons have to do with looking better. Sculpted arms and toned 'abs' have become something of a fashion statement. But we can think of more compelling and, ultimately, more satisfying reasons to lift weights. Here's a reminder of what weight training can do for you:

- ✔ **Keep your bones healthy.** The average woman loses about one per cent of her bone mass each year after age 35. Men are susceptible to brittle bones, too. Lifting weights can drastically slow the rate of bone loss — and may even reverse the process. With strong bones, you won't become hunched over as you age, and you'll lower your risk of life-threatening fractures. No matter what your age, it's never too late to start strengthening your bones.
- ✔ **Help control your weight.** When you lose weight through dieting and aerobic exercise (such as walking or bicycling), you lose muscle along with fat. This can be a problem: When you lose muscle, your metabolism slows down, so you're more likely to regain the weight. By adding weight training to the mix, you can maintain (or increase) your muscle and thereby maintain (or even boost) your metabolism. Although weight training is no magic bullet for weight loss, many obesity experts consider it to be an essential part of any weight control program.
- ✔ **Increase your strength.** Lifting the front end of a fire engine may not be among your goals in life, but a certain amount of muscle strength does come in handy. Weight training makes it easier to haul your stacks of newspaper to the recycling bin and drag your kids away from a video game. Studies show that even 90 year olds can gain significant strength from lifting weights.



- ✔ **Boost your energy.** Forget about dodgy dietary supplements. One of the best energy boosters around comes not in a bottle but on a weight rack. When you lift weights, you have more bounce in your step. You can bound to the bus stop or sail through your company's annual charity walk-a-thon.
- ✔ **Improve your heart health.** For years we've known that aerobic exercise such as walking, jogging and cycling can lower your risk of heart disease and high blood pressure. But new research suggests that weight training may offer these benefits as well. Specifically, studies show that lifting weights can lower your risk of having a heart attack or stroke by lowering your LDL ('bad') cholesterol and reducing blood pressure.
- ✔ **Improve your quality of life.** Any activity that accomplishes all of the above has to make you a happier, more productive person. (Research suggests that weight training can even relieve clinical depression.) Of course, hoisting hunks of steel is no instant cure-all, but you'd be surprised at how much satisfaction a pair of 5 kilogram dumbbells can bring into your life.

## How to Use This Book

You can use this book in several ways:

- ✔ If you're a novice, we suggest you start by reading Parts I and II — these parts get you comfortable with the equipment, the lingo, the safety basics and the etiquette. Then skip to Part IV, which explains how to design a weight routine that meets your needs. (You may want to refer back to this part every now and then.) Then go back to Part III, which shows you the exercises. In your spare time, like when you're not busy lifting weights, hit Parts V and VI.
- ✔ If you already know an E-Z Curl bar from a horseshoe grip and know that in the weight training world, a circuit has nothing to do with electrical currents, you can go straight to Part III and find numerous exercises for each body part. You may also want to focus on Part IV, which describes how to combine these exercises into a routine that fits your schedule and your equipment preferences.
- ✔ No matter what your level of knowledge about weight training, you can always use this book as a reference. Flip to the index and look up any specific topic, such as hamstring stretches, fitness magazines or high-protein diets.

## *How This Book Is Organised*

*Weight Training For Dummies* is divided into six parts. In general, you can read each part — or any chapter within it — without having to read what came before. When you come to a section that does require prior knowledge, we refer you to the chapter that provides the background. Here's a rundown of each part.

### *Part I: Stuff to Know Before You Pick Up a Weight*

Lifting isn't one of those activities like, say, hopscotch that you can competently engage in after a one-minute explanation. Before you hop aboard the Leg Press, you need to know a bit of weight training jargon and understand key safety precautions. This part explains terms such as power cage, spotter and plate-loaded weight machine — terms that you can use to impress guests at your next cocktail party. This part also teaches you how to test your own strength and chart your progress in a weight training diary.

### *Part II: Weight Training Wisdom*

In this part, we offer insight into the less technical aspects of weight lifting. We clue you in to equipment bargains, help you size up health clubs and warn you about smarmy salespeople. We tell you which DVD instructors to invite into your living room, which group strength training classes to avoid and how to recognise a quality trainer. We also fill you in on the finer points of weight training etiquette, like what to do when a gym member is hogging the Butt Blaster.

### *Part III: The Exercises*

We suspect this part is what prompted you to buy the book. Here we demonstrate a wide variety of exercises for all your major muscle groups. Each chapter includes a muscle diagram (so that you can locate your 'quads' and your 'deltoids') and an ever-so-brief physiology discussion. We demonstrate exercises for novices and veterans, home lifters and gym members. We also explain how to modify many of the exercises if you have trouble with your back, your knees or other joints.

---

## ***Part IV: Designing Your Workout Program***

You can't combine any dozen exercises and call them a workout any more than you can throw on random articles of clothing and call 'em an outfit. To get good results and avoid injury, you need to carefully select your exercises. In this part, we explain the essential elements of any weight routine. Then we explain how to custom design a program so that it suits your goals and your schedule.

## ***Part V: Beyond the Barbell***

Pumping iron will get you only so far. To get healthier and look better, you also need to eat sensibly, regularly engage in aerobic exercise and stretch your muscles. In this part, we explain how to balance your weight workouts with the other important components of fitness. We debunk myths about stretching, and we explain just how much walking, stairclimbing or swimming you should do each week. We introduce you to yoga and Pilates, two popular disciplines that can complement your strength workouts, and we show you several exercises to improve your balance and coordination. We also set the record straight on the pills, powders and potions sold at gyms and health food stores.

## ***Part VI: The Part of Tens***

This part is a hodgepodge of important weight training subjects. We recommend ways to educate yourself about weight training, such as reading fitness magazines, participating in internet advice boards and spying on fellow health club members. We describe common weight training errors and warn you against bogus gizmos, including electrical stimulation devices that claim 'You quickly shape up doing nothing at all!'

## Icons Used in This Book

No For Dummies book would be complete without our signature icons. Here's a list of the ones we use in this book.



We use this icon when we tell a true story, like the time Liz snapped her face with a rubber exercise band, the time Suzanne carried a 23 kilogram sack of chicken feed for 8 kilometres and the time that one guy we know got stuck under a barbell — and waited for 20 minutes before calling for help.



The Myth Buster superhero rescues you from misleading notions, fighting for truth, justice and a good weight training workout. For example, he points out that high-protein diets are *not* the key to weight loss and that abdominal training will *not* eliminate your love handles.



When you see the Tip icon, you know that we're pointing out an especially helpful weight training hint or giving you a headstart on an effective strategy.



The Warning icon warns you about the con artists lurking at the depths of the fitness industry, hawking useless gadgets like electronic muscle stimulators. We also use this icon to signal mistakes that can cause injury, such as bending your knees too far or lifting too much weight.

## Special Icons

The following icons are used primarily in the chapters that demonstrate exercises: Chapters 8 through to 15.



This officer is on the posture beat, reminding you about good technique so that you don't become the proud new owner of a sprain, tear or worse. He tells you when to keep your shoulders relaxed, your abdominal muscles tight and your knees bent.



This Joint Caution icon suggests that you skip or modify the exercise if you've ever injured the joint indicated, such as the knee or lower back. Even if you've never suffered an injury, pay special attention to the joints in question and watch out for any discomfort.

# Part I

# Stuff to Know Before You Pick Up a Weight

*Glenn Lumsden*



*'Safety tip: Choose your spotter wisely.'*

## *In this part ...*

**P**art I takes the intimidation out of weight lifting. You get a description of the major weight training tools: Dumbbells, barbells, weight machines, rubber tubing and a few other mysterious contraptions you're likely to come across at a gym or a sports store. You also get a crash course in safety so that you don't crush your fingers in a weight machine or whack a fellow lifter in the ribs with a barbell. In addition, you find out how to track your progress in a weight training diary and how to test your muscle power on a variety of equipment. And for the few, the proud, the ambitious, we list the physical requirements for entrance into some physically challenging professions.

# Chapter 1

## Tools of the Trade

---

### *In This Chapter*

- ▶ Getting the terminology right
  - ▶ Sizing up free weights
  - ▶ Finding out about weight benches
  - ▶ Operating heavy machinery
  - ▶ Building muscle with rubber
  - ▶ Using your body as weight equipment
- 

**N**o question: The most intimidating thing about weight training is the equipment. You could examine a weight machine for half an hour — looking it up and down, walking circles around it, touching it, prodding it, even reading the instructional plaque posted on the frame — and still have absolutely no clue where to sit, which lever to push or what possible benefit you could derive from using it. Heck, even a simple metal bar sitting on a rack can leave you scratching your head.

We have two points to make about the bewildering nature of weight equipment. First, relax. With a bit of practice, weight training contraptions are actually easy to operate. Second, be happy that you decided to take up weight lifting in the 21st century. Back in the 1800s, fitness enthusiasts took to lifting furniture, boulders — even cows! Although we personally have never tried hoisting farm animals overhead, we feel confident that today's weight training devices are a major improvement.

In this chapter, we introduce the basic strength-building tools found in gyms and sports stores, including some high-tech contraptions that have become popular since the first edition of this book. We detail the pros and cons of each equipment category: Free weights (dumbbells, barbells and kettlebells), machines, and rubber exercise bands and tubes. And we help you decide which type of equipment is right for you. We also answer the big questions: Should beginners stick to machines? Do barbells build bigger muscles? Can you get strong without using any equipment at all?

## Jargon We Couldn't Resist

In fitness magazines, health clubs and DVDs, you often hear weight equipment referred to as *resistance equipment*. We hate to clutter your brain with jargon right off the bat, but *resistance* is a word you should know. Resistance is an opposing force, like a weight or gravity; in order for your muscles to get stronger, you must work against resistance. *Resistance equipment* is actually a more accurate term than *weight equipment* because, as we explain later in this chapter, you can build muscle without using weights at all. Rubber exercise tubes, for example, don't weigh more than a couple of grams, but they provide enough resistance to strengthen your muscles. Throughout this book, we use the terms *resistance training*, *weight training*, *strength training* and *weight lifting* interchangeably.

## A For Dummies Guide to Dumbbells and Other Free Weights

When people talk about *free weights*, they're generally referring to the metal bars that have weighted plates welded or clipped onto the ends. Dumbbells are the short ones — you can lift them with one hand. Barbells are the long bars that you see Olympic weight lifters pressing overhead with both hands. Kettlebells are a third type of free weight, which look a little like a bowling ball with a handle attached. All three types are called free weights not because they're given away by philanthropic bodybuilders but because they're not attached to any pulleys, chains or other machinery.



Some novices think that free weights are the domain of advanced weight lifters; equipment that's not to be fooled with until you've graduated from weight machines. Not true. Beginners have just as much to gain from using free weights as those guys and gals with necks the diameter of a tree stump.

### Different kinds of dumbbells

Dumbbells come in pairs, and at most health clubs they're lined up on a rack from lightest (as light as 0.5 kilograms) to heaviest (upward of 90 kilograms). By the way, the super heavy dumbbells are mostly for show, considering that about .0000001 per cent of the population is capable of lifting them. At some gyms, these weights sit untouched year after year, like the boiled lollies in that bowl at Aunt Selma's house.



Dumbbells come in many shapes and materials. Some have hexagonal ends so that they don't roll around the floor. Some have contoured handles so they fit more comfortably in your hand. Some are made of shiny chrome; others are grey steel. Others are coated with rubber so that if some yahoo drops them, the weights won't dig a hole in the floor the size of a bus. Figure 1-1 shows an array of dumbbells.



**Figure 1-1:**  
Gyms rack  
dumbbells  
in pairs.

## *Different kinds of barbells*

Like dumbbells, barbells, also called *bars*, come in a variety of designs. The most popular is a straight bar — at most gyms, these bars weigh 20 kilograms and are 1.8 or 2.4 metres long. (However, many gyms have bars in a variety of weights, sometimes as light as 10 kilograms. If you're not sure how much a bar weighs, be sure to check with a staff member.) If you want to lift more than 20 kilograms, as most people eventually do, you choose from an array of round plates weighing 0.5 to 30 kilograms and slide them onto either end of the bar. (The *plates* have a hole in the centre.) For example, if you want to lift 35 kilograms, you slide a 5 kilogram plate and a 2.5 kilogram plate onto each end.

Some plates have additional holes cut into either side to make them easier to pick up and carry; the holes function like built-in luggage handles. We think these plates are a brilliant invention and have probably helped prevent many an accident and a backache.

Clip-like or screw-like devices called *collars* temporarily secure the plates onto the bars so that they won't rattle around or slide off as you push or pull the bar. Be sure to use these collars, as shown in Figure 1-2, at the gym and at home; many a mirror has been shattered by runaway weight plates. Some health clubs require that you use collars. At one of our favourite gyms, the owner will march over and stare you down if you forget to clip on the collar. The owner himself, a former power lifter and police officer, weighs about 140 kilograms. He's not someone you want to argue with.



**Figure 1-2:**  
Use a collar  
to prevent  
runaway  
weights.

In addition to straight bars, most health clubs and equipment dealers have a number of exotic-looking bars with various twists and bends in them. The most common is a W-shaped bar about a metre long called the E-Z-Curl, which is designed to make certain tricep and bicep exercises more comfortable. Some gyms and equipment stores also have an array of straight and E-Z-Curl bars with weight plates welded to the ends. These barbells are convenient to use because you don't have to slide weight plates on and off. If you want to switch from 35 kilograms to 40 kilograms, you simply put the 35 kilogram weight back on the rack and pick up the 40 kilogram weight. No muss, no fuss.

These welded bars are often shorter and less bulky than the traditional bars, so they're more comfortable for many arm and shoulder exercises. However, you typically won't find these *fixed-weight* barbells weighing more than 70 kilograms. For many barbell exercises — particularly certain chest and leg exercises — you may need a lot more weight than 70 kilograms. With traditional bars, you can pile on up to about 270 kilograms (not that we expect you to do this).

## *Introducing kettlebells*

*Kettlebells* look a bit like a shotput ball with a handle. Russians have been using kettlebells for fitness since the early 1900s, but these weights really only started to find their way to Australian and New Zealand shores in the past decade or so.

Traditionally, kettlebells were made from cast iron and were plain black or metal grey, but these days, you can buy them in all sorts of snazzy colours, as well as with varying handle widths. Some also come with a 'protective' rubber or plastic coating (protective or not, you still wouldn't want to drop one on your toes). Like dumbbells and barbells, kettlebells come in a variety of sizes and weights, from a manageable 2 kilograms all the way up to 70 kilograms — or even higher.

Unlike barbells or dumbbells, however, a kettlebell's centre of gravity is not in the middle of the weight — it's in the large metal ball attached to the handle. So rather than using traditional 'pushing' or 'pulling' actions, like you would with dumbbells or barbells, kettlebell exercises generally involve 'swinging' the weight around. This means you end up using stabilising muscles in your core, your back and your legs, as well as the muscles in your arms, shoulders or whatever muscle group it is that you're using to move the weight around.

This is good news, because exercises that use multiple muscle groups mimic your muscles' actions in real life (plus, you burn more fat). Just think about how many muscles your body uses to vacuum, for example — your legs, arms, shoulders, back, abdominals . . . and that's not even counting all the facial muscles you're using to frown while you clean.

However, kettlebells can potentially be bad news if you have a weak core or back problems. Why? The simple answer is because you're swinging heavy chunks of iron around. If you don't know what you're doing, you might end up swinging with more momentum than you'd bargained for — and spraining or tearing something. That doesn't mean that they're only for professionals, but it's a good idea to get some hands-on instruction from someone who knows what they're doing before you begin a kettlebell love affair.

Because they're still not offered in many gyms, and you can get the same results from using other, more popular kinds of weights, we won't be focusing on kettlebells in this book — but now, if you do happen to see one, you won't be tempted to try and roll it down a lane at a bowling alley. Have a look at Figure 1-3, and you'll see what we mean.



**Figure 1-3:** Kettlebells come in different shapes and sizes.

## *The value of free weights*



A friend of ours was lying on a weight bench holding two dumbbells overhead when his cat hopped up onto the bench. While trying to shoo the cat away by squirming around, our friend kept the weights overhead for so long that he tore a rotator cuff muscle. The point of this story isn't to scare you away from using free weights. In fact, we believe the best approach to strength training is to combine free weights and machines. Just know that free weights require plenty of concentration. If you follow the safety tips described in Chapter 2 (and if you avoid choosing your pet as a training partner), free weight training is perfectly safe. Here are several good reasons to use dumbbells and barbells:

- ✔ **Free weights are versatile.** With barbells and dumbbells, you can do literally hundreds of exercises that work virtually every muscle group in your body. Flip through Part III of this book, and you'll get an idea of just how handy they are. Most weight machines, on the other hand, are designed to perform only one or two exercises.

- ✔ **Free weights give your muscles more freedom to move.** Suppose that you're lying on a bench pushing a barbell above your chest (this is the Bench Press, shown in Chapter 9). You can press the weight straight up over your chest, or you can move your arms a few inches back so that you are pressing directly above your neck. Or you can position your arms anywhere between. All these movements are perfectly legitimate ways of doing the exercise, and some may feel more comfortable to your body than others.
- ✔ **Free weights involve several muscle groups at once.** For example, chest press movements are designed to work your chest, shoulders, and triceps. However, when you perform these movements with a barbell, you also call on your abdominal and lower back muscles to keep your body still and to keep the bar balanced as you press the weight up. With the equivalent machine, you don't have to worry about holding the bar still, so your abdominal and back muscles don't get as much action. (However, as we explain in the 'Don't Be Afraid of Weight Machines' section later in this chapter, the more limited action of a machine is sometimes a benefit.)

## *Making the choice: Dumbbells versus barbells*

As we demonstrate in Part III, you can perform many movements with both dumbbells and barbells. For example, while sitting on a bench, you can either press a bar overhead (the Military Press) or press up two dumbbells (the Dumbbell Shoulder Press). Which is the better option? Actually, both have their benefits.

Dumbbells are helpful because they allow each arm to work independently. If one side of your body is stronger than the other — which is a common phenomenon — this imbalance is apparent when you're working with dumbbells. Your weaker arm may start wobbling or may wear out sooner than your dominant arm. Using dumbbells can help correct strength imbalances because each side of your body is forced to carry its own weight, so to speak. By contrast, if you use a bar, your stronger side may simply pick up the slack for your weak side.

On the other hand, some exercises just don't *feel* as good when you use dumbbells. Any seasoned lifter can tell you that nothing is quite like doing the Bench Press — it's considered the quintessential meat-and-potatoes chest exercise. Even though the Dumbbell Chest Press is a perfectly good exercise, it may not deliver quite the same amount of satisfaction, probably

because you can't lift as much total weight. For example, if you can do the Dumbbell Chest Press with a 10 kilogram dumbbell in each hand, there's a good chance that you can lift at least a 28 kilogram barbell.

## *Using a Weight Bench*

A weight bench is what you'd expect: A sturdy, padded bench that you lie, sit or kneel on to lift weights. To get the most out of free weights, benches are a must. Sure, you could lie on the ground, but many exercises will come to an abrupt halt when your elbows smack against the floor. As a result, your muscles won't get a chance to work to their fullest. (Your elbows might not feel so great, either.)

Benches come in a variety of designs. These are the four most common benches. Some benches can be adjusted to serve all four functions.

- ✔ **Flat:** A flat bench looks like a long, narrow piano bench, only with padding and metal legs. See the Dumbbell Chest Press exercise in Chapter 9 for an example.
- ✔ **Vertical:** A vertical bench looks like a really formal chair — with the seat back straight up. You wouldn't want to sit in one of these at the dinner table, but they're quite comfortable for weight lifting. The back support prevents you from straining your lower back muscles during exercises that you perform while sitting up. The Seated Supported Dumbbell Shoulder Press, shown in Chapter 10, uses this type of bench.
- ✔ **Incline:** The seat back of an incline bench is usually adjustable so that you can lie flat, sit up straight or position yourself at any angle in between. (The angle you choose determines which muscles are emphasised.)
- ✔ **Decline:** A decline bench is sloped downward so that you're lying with your legs higher than your head (the same direction that the bed was sloped at a ski resort Suzanne recently rented). A decline bench is primarily used to strengthen the lower portion of the chest muscles. We describe a few decline chest exercises as 'options' in Chapter 9. Most lifters don't do much decline work because getting in and out of the position is awkward, especially when you're holding weights.

## Weight lifting accessories

Here's a rundown of items that people carry in their gym bags. Even if you never set foot in a health club, these accessories can make your workouts more comfortable and, in some cases, safer.

- ✔ **Gloves:** Weight lifting gloves have padded palms, and the tops of the fingers are cut off. They prevent your hands from callousing and can prevent your hands from slipping off a bar. They also look cool. See Chapter 28 for details about gloves.

You may want to use weight lifting pads instead of gloves. These are spongy rubber squares or circles that you place in the palm of your hands like pot holders while you lift. Some people feel that pads offer more control than gloves because more of your hand is in contact with the weight. However, they're not as convenient as gloves because you have to carry them around as you work out. (Some come with clips so you can hook them to your shorts.)

- ✔ **Belts:** The controversy in the fitness community rages on: To wear a belt or not to wear a belt? Proponents of weight lifting belts maintain that belts protect your lower back. Opponents counter that a belt is like a crutch. If the belt does all the work to keep your body stable, then your abdominal and back muscles won't develop to their fullest potential, and you may end up with back problems down the line.

Who's right? Well, we're not fond of belts. Although many casual lifters swear by them, we think that you don't need one unless you're a serious power lifter. Your abdominal and lower-back muscles will benefit

from the work they do to support you during a lift.

- ✔ **Shoes:** Wear athletic shoes that have plenty of cushioning and ankle support. On occasion we see people wearing sandals or loafers when they lift weights. If you drop a weight when you're wearing sandals, your toes have NO protection. (Shockingly, some exercise books show people lifting weights in bare feet.) And if you wear shoes without rubber soles, your footing won't be secure enough. We've even seen weight lifting DVDs in which the models wear high heels. We cringe at the thought of what these people are doing to their ankles and knees — and the accidents waiting to happen when they pick up a heavy weight and lose their balance.
- ✔ **Clothing:** Suzanne made the mistake of wearing running shorts to her first weight lifting session. The error became apparent when the trainer told her to hop on the outer-thigh machine, which required spreading her legs wide. The lesson: Wear tight shorts, or at least long ones. On top, wear a T-shirt or tank top. Forget the multilayered, Tasmanian Mountains look, and certainly don't wear one of those vinyl exercise suits. Heavy clothing only traps your sweat and leads to dehydration; it can also impede your movement and hide mistakes in your posture that you'd be able to see if you weren't dressed for an expedition to Antarctica.
- ✔ **A towel:** Do you want to lie down in a pool of someone else's sweat? We didn't think so. Be courteous. Use a towel to frequently wipe off your body and the equipment you use.

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- ✔ **A water bottle:** Every gym has a drinking fountain, but you'll drink more water while weight lifting if you have a bottle by your side. If you exercise at home, a water bottle is a must.
- ✔ **A weight training log:** Recording your workouts in a journal keeps you motivated and helps you assess your fitness goals. For suggestions on what to write down, see Chapter 3.

## Don't Be Afraid of Weight Machines

Attach a few bars onto a large metal frame, add a cable and a pulley or two, weld a seat and a few pads onto your creation, and presto! A weight machine is born. Of course, weight lifting machines are a bit more sophisticated than this definition suggests, but you get the idea. There are countless ways to put these various elements together — flip through Part III and you'll see that weight machines look wildly different. Here's a look at the varieties of machines:

- ✔ **Weight-stack machines:** Traditional weight machines have a stack of rectangular weight plates, each weighing 2 to 10 kilograms. Each plate has a hole in it; to lift 22 kilograms, you stick a metal pin in the hole of the weight plate marked 22. When you perform the exercise — by pushing or pulling on a set of handles or levers — the machine picks up the plate marked 22, plus all of the plates above it. These machines are great time-savers because it's so simple to change the amount of weight you're lifting.
- ✔ **Plate-loaded machines:** Plate-loaded machines are a hybrid of traditional machines and free weights. They have a large frame and protect you from dropping any weight onto the floor, but they aren't attached to a stack of weight plates; instead, you place any number of round weight plates onto large pegs.

We think some of these plate-loaded machines are gimmicky. They offer no benefits over traditional machines — unless you happen to enjoy carrying weight plates around the gym. However, we do like the plate-loaded machines that let you work each side of your body separately. We also like the varieties that have 'free-floating' levers. Instead of forcing you to move through a fixed pathway, the machines let you move pretty much any way you want. These machines mimic the feel of free weights (for the most part) while retaining most of the safety benefits of a weight machine.



✔ **Hydraulic and air pressure machines:** This is another machine category that doesn't have a weight stack. Hydraulic and air pressure machines have a series of pistons that create resistance by pumping oil, gas or fluid. These machines are fine — some are very well designed — but some exercisers don't feel motivated when they use them because there is no weight stack moving up and down or any clanging of steel. All you hear is a sound that's similar to a can of hair spray in action.

You tend to see these machines at larger gyms with a wide variety of different equipment, and because they're so easy to use, in specialist gyms for the older population. Gyms with limited space or budgets don't usually spring for these.

✔ **Electronic machines:** In the US, serious gym goers are using electronic machines. These high-tech contraptions may be the future of weight machines. Some varieties, such as TechnoGym, have computers built right in. You swipe an ID card into the machine, which automatically sets the resistance based on your last workout. As you do your set, the machine sends you technique tips. Other electronic systems, such as Fitlinxx, are attached to regular weight training machines. You punch in a code and the machine retrieves your personal information.

The advantage of electronic machines is that they store all of your information. This feature is great for beginners, who may be too overwhelmed to remember how much they lifted last time. These systems also run a variety of extensive reports so that you can analyse your training in depth. For instance, you can compare your progress on the Leg Press to your progress on the Leg Extension. Serious athletes may find this information useful.

However, what's new isn't always better. Electronic machines slow down the pace of the gym and remove some of the human element involved in working out. Instead of interacting with the staff and other members, you interact with a machine. If the system goes down, the repair process generally takes longer than it does with your basic weight-stack machine.

Also, the electronic systems aren't connected with free weights, so computer-dependent lifters may be discouraged from experimenting with dumbbells and barbells. That said, this technology is likely to soon reach our shores.

## Smith machines and power cages

Make special note of two contraptions that come in handy for some of the advanced exercises shown in Chapter 15.

✔ **The Smith machine:** The Smith machine — named for an influential 1970s fitness figure named Randy Smith — features a regular free-weight bar trapped inside a track so that the bar must travel straight up and down. The Smith machine increases the safety of exercises such as bench presses, overhead lifts and squats because you don't have to worry about the bar wobbling or slipping from your grip. At the same time, the machine retains the feel of free weights. Many Smith machines possess another safety feature: self-spotting pins jutting out from the frame. These pins prevent the bar from being lowered below a certain point, so there's no chance you'll get crushed under the bar if the weight is too heavy.

Smith machines use a traditional 20 kilogram bar, but in some cases the bar is

balanced on springs to negate most or all of its weight. The purpose is to add smoothness to the movement. Many lifters don't like this feature because it takes away from the macho spirit of weight lifting. Also, the movement is a bit too smooth, removing all of the coordination and extra muscle usage associated with lifting free weights.

✔ **The power cage:** A power cage is a large steel frame with a series of stanchions affixed to the sides. You stand in the centre of the cage and place your bar on the stanchions that are at the right height for your lift. A power cage doesn't offer as much safety as a Smith machine because once you lift the bar from the stanchions, you're on your own. Still, the cage does offer an extra measure of protection during heavy lifts or lifts that require a lot of balance. And if your muscles give out, the stanchions catch the weight before it crashes to the floor.

## *What weight machines can do for you*

Like every machine ever invented, from the Cuisinart to the calculator, weight machines are designed to provide advantages over the low-tech contraptions that came before. Here are some of the ways that weight machines can top dumbbells and barbells:

- ✔ **Weight machines are safe.** There's no chance they'll come crashing down on you, so you need less instruction and supervision than you do with free weights.
- ✔ **Weight machines are easy to use.** Machines don't require much balance or coordination, so you can get the hang of an exercise more quickly. Also, you're more likely to use proper form because

the machine provides so much guidance. However, machines don't guarantee good form. You can still butcher an exercise on a machine, which can lead to injury or at the very least cheat your muscles out of a good workout.

- ✓ **Weight machines enable you to *isolate* a muscle group.** In other words, machines enable you to home in on one muscle group to the exclusion of all others.

For example, very few free weight exercises isolate your hamstrings, your rear thigh muscles. Usually, you can't exclude other muscles — such as your front thighs, butt or lower back — from getting involved.

On the other hand, numerous machines can isolate your hamstrings. This feature of weight machines is helpful if you have a particular weakness or are trying to build up one body part.

- ✓ **Weight machines help you whip through your workout in minutes.** You put in the pin, do the exercise, then move to the next machine. This process also makes it easy to work out with a friend who is either stronger or weaker — you don't have to load or unload weight plates off a bar. But keep in mind that you do need to adjust each machine to fit your body. In Chapter 2, we explain how to adjust machines.

- ✓ **Weight machines challenge your muscles throughout the entire motion of an exercise.** Many (although not all) modern-day weight machines compensate for the fact that your muscles aren't equally strong throughout a particular motion. Consider the Triceps Kickback exercise, shown in Chapter 11. This exercise is relatively easy at the start, but by the time your arm is halfway straightened out, your muscle is being challenged a lot more. By the end, your triceps again has better leverage, so you finish feeling strong.

Weight machines can manipulate the resistance at various points in the exercise by using a kidney-shaped gizmo called a *cam*. When you're at a weak point during the exercise, the cam lightens the load. When your muscle has good mechanical advantage, the cam gives it more work to do. This way, your muscles are working to their fullest throughout the motion. Otherwise, you're limited to a weight you can move only at your weakest point, as you are with free weights.

Arthur Jones, inventor of Nautilus machines, was the first person to use the cam in exercise machines, and he became a multimillionaire for it. The term *Nautilus machine* has become a generic term like *Band-Aid* or *Sellotape*. When people refer to Nautilus machines, they may be talking about any one of the major brands, including Cybex, Body Masters, Hammer Strength, Galileo or Icarian.

## *Cable machines: A different breed*

Not all machines use a cam. A class of contraptions called cable machines use a typical round pulley. A *cable machine* is basically a vertical metal beam, called a *tower*, with a pulley attached. You can adjust the height of the pulley so that it's close to the floor, up over your head or anywhere in between. Some cable machines have two towers (for an example, see the Cable Crossover exercise shown in Chapter 9). Cable machines are more versatile than Nautilus-type machines. Clip a new handle onto the pulley and you instantly create a new exercise.

Consider the Triceps Pushdown, described in Chapter 11. Pressing down with a rope feels considerably different than pressing down with a V-shaped bar. You may prefer one attachment over the other, or you may want to use both for variety. See the sidebar 'Cable attachments' for a rundown of the most popular attachments. In Part III of the book, we recommend certain attachments for certain exercises.

## *Stretching Your Workout*

Giant rubber bands and rubber tubes provide resistance for a couple of bucks. You can't get as strong or measure your progress as precisely as you can with machines and free weights, but bands do challenge your muscles in different and effective ways. For example, bands provide resistance during both the up and down motions of an exercise. With most free weight and weight machine exercises, on the other hand, you typically feel resistance only during the lifting portion of the exercise.

Rubber bands and tubes are also convenient and portable. (You can't exactly pack a bunch of dumbbells into your overnight bag.) If you don't have access to machines, bands are a great supplement to free weights because they allow you to do exercises that just aren't possible with dumbbells and bars. Chapter 27 shows you ten exercises that you can perform with bands and tubes.

## *Lifting Your Body Weight*

Why is it that certain exercises can be quite challenging even though you're not holding any weights or using a machine? (The Lunge, shown in Chapter 14, is a good example.) In these cases, you're not lifting *no* weight, you're lifting your body weight. With a number of exercises, moving your own body weight offers plenty of resistance, especially for beginners.

The effectiveness of a no-equipment exercise depends on how much of your weight you actually have to move, and how hard you have to work to overcome the force of gravity. Consider the Push-up, shown in Chapter 9. In the *Military* version, you have to push your entire body upward, directly against the force of gravity. The *Modified* version, where you're balanced on your knees rather than your toes, factors out the weight of your legs so that the exercise is easier. Neither exercise requires you to hold a weight, but both versions can be tough.

## Cable attachments

At most gyms, you see a large heap of metal bars and handles sitting in a plastic container or milk crate. This may look like a pile of junk, but actually it's more like a treasure chest. By attaching these handles to a cable pulley, you create an unlimited variety of exercises.

Some people are afraid to go near this pile, so they simply settle for using whatever bar happens to already be attached to the cable. But if you frequently switch the handles, your workout will be a lot more fun. Here's a rundown of the most popular cable attachments:

- ✔ **Long bar:** These bars come in various lengths and are commonly used for back exercises that involve pulling the bar to your chest, such as the Lat Pulldown, shown in Chapter 8. You can pull these bars with an underhand or overhand grip, and you can place your hands as far apart or as close together as you like.
- ✔ **Curved short bar:** Some of these are U-shaped and some are V-shaped. Both varieties are used almost exclusively for

triceps exercises, such as the Triceps Pushdown.

- ✔ **Straight short bar:** This bar is used in triceps exercises, biceps curls, and rows. We especially like to use this bar for the Triceps Pushdown and the seated Cable Row.
- ✔ **Horseshoe:** Unlike with the other bars, you grasp the horseshoe with one hand. Its used for numerous chest, arm and back exercises in which you work each side individually. Try the horseshoe with the Triceps Pushdown, the seated Cable Row and the Cable Lateral Raise.
- ✔ **Rope:** This attachment is most commonly used for triceps exercises such as the Triceps Pushdown.
- ✔ **Ankle collar:** You clip this wide leather ankle bracelet to the pulley to perform exercises such as leg lifts, back kicks and leg curls. It's great for strengthening your inner and outer thighs while you're standing. We don't use the ankle collar in this book, but a trainer can fill you in.



## Chapter 2

# How to Avoid Dropping a Weight on Your Toe and Other Safety Tips

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### *In This Chapter*

- ▶ Weighing up the universal laws of weight lifting
  - ▶ Spotting and being spotted
  - ▶ Avoiding injury while lifting weights
  - ▶ Taking action if you're injured
- 

**S**uzanne has a grandmother who refuses to believe that weight lifting is safe. Speaking to this woman, you would think that hoisting a 10 kilogram barbell is a risk on par with operating a chainsaw without safety goggles.

Forget what Grandma says. The truth is, there's nothing inherently unsafe about weight machines or barbells. It's what you *do* with these contraptions that can leave you with smashed toes, ripped hamstrings and torn tendons. If you pay attention, use good form, and don't get too macho about how much weight you lift, you can go for years without even a minor injury.

In fact, one of the best reasons to lift weights in the first place is to reduce your risk of injury in daily life by strengthening your muscles and bones. Follow the safety tips in this chapter, and you'll walk out of the weight room the same way you entered it: In one piece and under your own power.

## *The Universal, Immutable Safety Laws of Weight Lifting*

We said that weight training is safe, but this doesn't mean that you won't feel occasional muscle soreness — especially if you're new to the game or haven't worked out in a while. A little bit of post-workout soreness is okay; chances are, you'll feel the tightness or achiness 24 to 48 hours after your workout, rather than right away. (This is called Delayed Onset Muscle Soreness, for those of you who feel more comfortable when your pain has a name.) The following guidelines can help you keep this soreness to a minimum.

### *Warm up before you lift*

Before you pick up even a 1 kilogram dumbbell, you need to warm up your muscles with at least five minutes of easy aerobic exercise. Your warm-up increases the temperature of your muscles, making them more pliable and therefore less susceptible to injury. If you have a particularly heavy weight workout planned, warm up for 10 minutes. Active Isolated stretching (AI), a technique we explain in Chapter 21, is also an acceptable way to warm up.

Walking, jogging, stairclimbing and stationary biking are excellent warm-up activities for the muscles south of your waistline. But to prepare your upper body muscles, you need to add extra arm movements to these activities. So, swing your arms fairly vigorously as you walk, jog or use the stairclimber. When you ride the stationary bike, gently roll your shoulders, circle your arms and reach across the centre of your body. Better yet, use an aerobic machine that exercises your entire body, such as a rower, cross-country ski machine or stationary bike with arm handles.

### *Start with an easy set*

If you're planning to do more than one set of an exercise, start by performing 8 to 10 repetitions with a very light weight. A warm-up set is like a dress rehearsal for the real thing, a way of reminding your muscles to hit their marks when you go live. Even monstrously huge bodybuilders do warm-up sets. Sometimes you'll see a human hunk of muscle bench-pressing with just the 20 kilogram bar. Just as you're thinking, 'What a wimp', he piles on so many weight plates that the bar starts groaning. Then you realise: That first set was just his warm-up.



## *Lighten up*

If you go too heavy, you may lose control of the weight and drop it on yourself or on someone else. Or you may strain so hard to lift the weight that you tear a muscle. Or you may end up so sore that you can barely lift your feet up high enough to climb stairs.

## *Observe the speed limit*



Lifting weights too quickly is a good way to injure yourself. When you're pressing, pushing, lifting, or extending at the speed of a greyhound, you can't stop mid-rep if weight plates come loose, you're positioned incorrectly, or something just doesn't feel right. So take at least two seconds to lift a weight and two seconds to lower it. Some experts feel you should move even slower than that. If you're causing any banging and clanging, slow down your pace.

## *Don't hold your breath*



We're not suggesting you should inhale and exhale with the gusto of a Lamaze student, but on the other hand, don't hold your breath. Lifting weights temporarily causes your blood pressure to shoot up, which normally isn't a problem. But when you hold your breath, your blood pressure rises even higher — and then suddenly comes crashing down. This drastic drop may cause you to pass out and, if you have a heart condition, could put you in serious jeopardy.

## *Use proper form*

In addition to heeding the general safety tips we present here, be sure to follow the specific tips we give you for each exercise. Even subtle form mistakes, such as overarching your back or cocking your wrist the wrong way, can lead to injury.

## *Cool down*

If you've done a fairly fast-paced weight workout (such as a weight circuit, described in Chapter 16), complete the workout with five minutes of slow aerobic exercise. The aerobic cool-down gives your pulse, blood pressure

and breathing a chance to slow down before you hit the showers. If you've been lifting weights at more of a plodding pace, with plenty of rest between sets, a few minutes of stretching can suffice as a cool-down. Ending your workout with an easy set also helps you cool down.

## *Rest a muscle at least 48 hours*



You're welcome to lift weights on consecutive days — just don't exercise the *same muscle* two days in a row. When you lift weights, you tear apart your muscle cells. They need a rest day to repair themselves so that they come back even stronger. If you ignore this rule, weight lifting may make you weaker rather than stronger. At the very least, your muscles will feel too tired to perform at peak operating levels. In Chapter 17, we explain how you can lift weights four to six days a week without ever hitting the same muscle group on consecutive days.

## *Weight Machine Safety Tips*

One of the selling points of weight machines is that they're safer than free weights. And it's true — you're in no danger of being crushed by 100 kilograms of weight plates when they're nicely fitted into a machine. Still, if you're not careful, you can injure yourself.

### *Custom fit each machine*

Some machines require a single adjustment, such as the seat height. Others require two or more adjustments: For instance, with some versions of the Leg Extension machine exercise, shown in Chapter 14, you have to adjust the back rest as well as the leg bar. Don't worry, you don't need a plumber's license to adapt these machines to your body. Usually, you just pull a pin out of a hole, lower or raise the seat, and then put the pin back in place. Some machines are so simple to adjust that they don't even involve a pin. With practice, fitting the machine to your body becomes second nature.



Don't get lazy about making adjustments. Using a weight machine that doesn't fit your body is like driving a car while sitting in the back seat: uncomfortable, if not downright dangerous. When you strain to reach a handle or sit with your knees digging into your chest, you're at risk of pulling a muscle or wrenching a joint. After you make an adjustment, jiggle the seat or the backrest to make sure you've locked it securely in place. You don't want the seat to suddenly drop to the floor with you on it.

## *Watch your fingers*

Occasionally, a machine's weight stack gets stuck in midair. Don't try to rectify the situation yourself by fiddling with the plates. Instead, call a staff member for help.



We once saw a gym member try to fix a weight stack himself. The thing came crashing down, sandwiching his fingers between the weight plates. We've seen other people get clumps of hair caught in the stacks. And we heard about a guy who got his genitals stuck between weight plates. We don't know the details and don't want to, but we did hear the story from a reliable equipment dealer who witnessed the ordeal.

## *Don't invent new uses for the machinery*

You wouldn't use your best jumper to dust the house, right? You wouldn't use your television as a step-stool to reach the top cupboard. So don't use a chest machine to strengthen your legs. People are constantly inventing new — and unsafe — ways to use weight machines. For example: In order to release the chest bar on the Seated Chest Press machine (described in Chapter 9), you must use your feet to press down on a bar near the floor. Well, we've seen people ignore the chest press altogether and use this floor bar to exercise their thighs or arms. If you dream up new uses for a machine, you may be asking for injuries.

## *Free Weight Safety Tips*

We know one guy who arched his back so severely over years of bench-pressing that he finally was forced to retire as a police officer. So keep in mind the following during your free weight workouts:

- ✔ **Use proper form when you lift a weight off the rack.** Always bend from your knees — not your hips — when you lift a dumbbell or barbell off a rack or when you lift a weight plate off a weight tree. Get in close to the rack and keep your arms bent. Figure 2-1 shows you how not to lift a weight off the rack.
- ✔ **Pay attention when carrying weights around.** Always hold heavier weight plates with *two* hands (as shown in Chapter 26), and keep the plates close to your body when you carry them. When you carry barbells, watch where you're going. Making a U-turn while hauling around a 2 metre bar can cause some serious destruction. When carrying a dumbbell in each hand, keep your elbows slightly bent.

- ✔ **Use collars.** As we explain in Chapter 1, a collar is a clamp-like device that you use to secure a weight plate onto a bar. Often, when you perform a barbell exercise, the bar tilts slightly to one side; without a collar, the plates may slide right off and land on somebody's toes or crash into the mirrors on the wall. We know one woman who was knocked unconscious when a collar flew off a guy's weight bar and hit her in the head.
- ✔ **Don't drop weights onto the floor.** After you complete a dumbbell exercise on a bench (such as the Chest Fly or Dumbbell Chest Press, described in Chapter 9), bring the weights to your chest and then gently rock yourself up into a sitting position. Some people simply let go of the weights, which is not only unnerving to the other gym members but is also unsafe.
- ✔ **Safely return weights to the rack.** When you finish using dumbbells, barbells or weight plates, don't just lean straight over with locked knees and plunk the weights back on the rack. Bend your knees, pull your abdominals in and hold the weights close to your body before you release them. And be careful not to smash your fingers when placing the weights back on the rack. We've done that. Ouch!



**Figure 2-1:**  
The wrong  
way to lift  
weights  
from the  
rack.

## The Art of Spotting and Being Spotted

A spotter is someone who stands close by, ready to grab your weights in case your muscles give out. You don't need a spotter hovering over you for every free weight exercise, otherwise you'll feel smothered, as if your mum is chaperoning you on a date. But do call upon a spotter when:

- ✓ **You're trying an exercise for the first time.** Even if you're not lifting much weight, the weights may wobble when you perform a new movement. A spotter can gently help guide you through the motion until you have the confidence and the muscle memory to do it yourself.
- ✓ **You're attempting a heavier weight than usual.** If you've never bench-pressed 45 kilograms, try it first in the presence of a spotter. The moment the bar comes crashing down on your chest is not a good time to find out you weren't ready for the lift. Lifting heavy weights without a spotter is a lot like a trapeze artist working without a safety net. You may be fine the first nine times, but the tenth time ...
- ✓ **You want to eke out extra reps.** Sometimes you're just not sure whether you have one more repetition in you. If you have a spotter, there's no danger in trying. A spotter also can help you with machine exercises, assisting you, for instance, on the last few centimetres of a heavy Leg Curl or Arm Curl.

### Briefing your spotter

Prepare your spotter for the mission ahead. Explain how many repetitions you're aiming to complete and how many reps you think that you can do before you'll need the spotter's assistance. Be honest! If you think you may need a spot on the sixth repetition, say so. This way, your spotter can start paying extra close attention around the fourth rep.



Make it clear to your spotter whether you need help lifting the bar off the rack or getting the dumbbells into position. If so, you need to set up a specific plan, like whether the spotter will help you *on* the count of three or *after* the count of three. Tiny misunderstandings can lead to big injuries.

Something else you need to tell your spotter: Thank you. Offer your gratitude both before and after your set.



## *When you're the spotter*

When people recruit you as a spotter, you have a big responsibility to perform your job correctly. So be realistic. If you weigh 50 kilograms wringing wet, don't attempt to spot someone doing a 160 kilogram bench press. If you have any doubt you can pull it off, don't take on the assignment. The moment that the lifter's arms give out is not the moment to realise you're out of your league.

If you do accept the job, it's important to know how to spot in a way that protects you as well as your spottee throughout the exercise. Ask a trainer or an experienced lifter to walk you through the correct technique beforehand, and then pay close attention so that you are ready at the precise moment your spottee needs help. You know it's time to step in when the weight stops moving for more than a split second or if it begins traveling in the wrong direction. Of course, if a lifter screams, 'HELP!' that's also an indication you'd better stop scratching your nose. Do not foist a lift-or-die mentality upon your spottee. Just because he or she may have planned to complete five reps doesn't mean that you should withhold assistance if the lifter starts struggling after three. On the other hand, don't offer your spottee too much help too soon. This defeats the purpose of spotting and annoys the hell out of the person being spotted.



Don't lean so close to your spottee that you impede or distract his or her movement. We don't enjoy bench-pressing when someone's face is directly over ours and we can see up the person's nostrils. Finally, be supportive. There's no need to jump up and do the splits, but people appreciate support — and may even lift more weight — if you offer an enthusiastic 'You're almost there!' or 'You've got it!'

Where you stand when spotting someone can make the difference between being a great help and being useless in an emergency. The following list offers spotting tips for a variety of common exercises:

- ✓ **Bench Press:** Stand behind the bench with your hands above or underneath the bar but not touching it. When the lifter needs you, lean in and get a quick grip on the bar.
- ✓ **Chest Fly and Dumbbell Chest Press:** For these dumbbell exercises (and versions performed on an incline bench) place your hands close to the person's wrists, not the weights. (You may see people spot underneath the elbows, which is not a crime but not as safe, either.) When spotting flat-bench chest exercises, kneel on one knee behind the bench and follow the movement with your hands. For incline exercises, you may find it more comfortable to stand with your knees bent.

- ✓ **Barbell Squat:** Stand behind your spottee and be prepared to assist at the hips or underneath the arms. Your spottee may not want to be spotted at the hips unless you happen to be that person's significant other. If you're squatting with an especially heavy weight, you may want two spotters, one standing on either side of the bar.
- ✓ **Pull-up and Dip:** Stand behind your spottee and offer assistance by holding his or her shins or waist and guiding them upward.
- ✓ **Machine exercises:** Spot at the bar or lever of the machine, never by placing your hand underneath the weight stack. For example, if you're spotting someone on the Cable Row (pictured in Chapter 8), stand slightly behind and to the side of your spottee. Grasp one of the handles and gently assist it the rest of the way.

## Common Weight Training Injuries

Accidents happen, even to careful lifters. So, here's a primer on weight training injuries in case you do run into one.

First, some terminology. When you *strain* or *pull* a muscle, you actually overstretch or tear the *tendon*, the tough, cord-like tissue at the ends of the muscle where the muscle tapers off and attaches to the bone. A strain can happen when you push up the bar too forcefully during the Bench Press or stand up too quickly out of the Squat. Strains are often accompanied by a sudden, sharp pain and then a persistent ache.

A *sprain* is something different altogether. It happens not to a muscle but to a joint, such as your ankle or wrist. When you sprain a joint, you have torn or overstretched a *ligament*, the connective tissue that attaches one bone to another. You may feel pain and throbbing and notice some swelling and bruising. You can sprain just about any joint in your body; ankles and wrists seem to take the most beating.



Depending on the severity of the injury, the healing process may take anywhere from a couple of days to a couple of months. If your injury does not appear to be healing, see your doctor. Here's a rundown of injuries commonly caused by lifting weights:

- ✓ **Lower back pain:** If you have a history of back problems, you can just as easily throw out your back reaching for an apple in the fridge as you can pumping iron. But the weight room is an especially great place to trigger an old back injury — or to develop a new one. Always take precautions for your lower back when you lift weights. One important preventive measure (that we mention repeatedly throughout this book) is to pull your abdominals inward. By tightening your abs, you create a sort of natural girdle to support and protect your lower back.

- ✔ **Sore knees:** Knee injuries come in so many varieties and have so many different causes that pinpointing the source of the problem can be hard. Often, the injury is caused by something you did outside of the weight room. Still, certain weight training mistakes, such as those described in Chapter 14, are likely culprits. Runners, walkers and cyclists can ward off many common knee injuries by performing quadriceps exercises.

If any leg exercise causes you pain, skip it or modify it by following our instructions. Some people try to protect their knees from injury by wrapping them in yards of bandages. We don't love the idea of knee wraps unless you're into some serious power lifting. A wrapped knee may mask a problem that needs immediate attention.

To help protect your knees, make sure that you strengthen both your front and rear thigh muscles — the muscles that support your knee joint. Stretching is also very important to keep all of the muscles that surround the knee loose and limber.

- ✔ **Sore wrists:** Some people injure their wrist muscles by bending their wrists too much when they lift weights, so pay attention in Part III when we describe the proper wrist position for various exercises. To prevent wrist injuries, do Wrist Curls and Reverse Wrist Curls (see Chapter 11) on a regular basis.

- ✔ **Torn rotator cuff:** The muscles of your rotator cuff (described in Chapter 10, along with Suzanne's maddening rotator cuff injury) are often injured during Bench Presses and Shoulder Presses. You may have torn your rotator cuff if you feel a persistent ache or a sharp pain deep within your shoulder at a specific point during the exercise. Another sign of a torn rotator cuff is being unable to raise your arm in front of you and over your head. If you have injured your rotator cuff, stop performing any exercises that cause you pain or soreness in that area. To be safe, skip all overhead pressing movements for a while and lighten your load on the Bench Press. You may also want to limit the distance you move the bar — or skip the exercise altogether. Review your form: Make sure you're not bouncing the weights up and down or taking the exercise past the safe finish point.

The rotator cuff exercises shown in Chapters 10 and 27 can help prevent injuries to these muscles. These exercises are a must if you lift heavy weights, if you lift frequently or if you participate in a sport that uses the upper body, such as tennis, rock climbing or swimming.



## Overcoming Injuries

We don't yet have a cure for the common cold, but we do have a pretty good cure for most minor sprains and strains. It's called RICE, which is an acronym for: Rest, Ice, Compression and Elevation. RICE is most effective if you begin the process within 48 hours of injuring yourself. Here's a rundown on each of the elements:



- ✓ **Rest:** Stop doing activities that aggravate your injury. (Notice that we didn't say stop all activity — that's rarely the solution.) Wait until you've had two completely pain-free days before doing exercises that involve the injured area.
- ✓ **Ice:** Contrary to popular belief, it's ice, not heat, that helps reduce the pain and swelling of most common injuries. (And we know this one from personal experience. Many years ago, Georgia tripped over a barbell and sprained her ankle, but refused to ice it because that 'just didn't sound right', and slowed down her recovery time by weeks.) Ice your injury for 15 to 20 minutes, three or four times a day, for as long as you feel pain. You can apply ice with a pack, a plastic bag full of cubes, even a package of frozen strawberries. But don't allow ice to sit directly against the skin. (You may end up with ice burns.)

Two areas may not respond well to icing: your neck and back. These injured areas may be so sensitive to the cold that you may tense up. If that's the case, a moist heating pad or wet, warm towel is best for treating the injury.

- ✓ **Compression:** Put pressure on the injury to keep the swelling down. Use a damp elastic bandage or buy a special brace or wrap for your knee, elbow or wrist. Wrap it tightly enough that you feel some tension but not so firmly that you cut off your circulation or feel numb.
- ✓ **Elevation:** Elevating your injured body part drains away fluids and waste products so that the swelling goes down. If you've hurt your ankle, you don't need to lift it up over your head. Propping up your ankle on several pillows or books does the trick.

Sometimes, however, RICE isn't sufficient to treat an injury. If the pain is truly excruciating or is bothersome for more than a few days, it probably needs more aggressive treatment and possibly medical attention. If you experience excessive swelling, discoloration or bleeding, you may need a trip to the emergency room. Use your judgment. If you see a bone fragment sticking out of your ankle, don't simply stick an ice pack over it.



## Chapter 3

# Testing Your Strength and Tracking Your Progress

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### *In This Chapter*

- ▶ Testing your strength — the safe way
  - ▶ Tracking your progress in a workout diary
  - ▶ Strength testing for the few, the proud, the ambitious
- 

**W**hat do you consider the hallmark of good strength? Whether it's the ability to carry a grand piano up ten flights of stairs, or being an expert at opening jam jars, it's a good idea to put your strength to the test from time to time. Strength tests are particularly important when you begin a weight training program. You need to know your starting point so that you can set realistic goals and design a workout program that reflects your current abilities.

In this chapter, we describe a variety of strength tests that are appropriate for beginners, and we explain how to track your progress in a workout diary. Just for fun — and for veteran lifters who want to see how they stack up against the nation's finest — we also include the physical fitness requirements for three government agencies in Australia, New Zealand and the US.

## *The Safest Way to Test Your Strength*

When you start an exercise program, you need to test more than the strength of your muscles. It's also important to evaluate your cardiovascular fitness (on a stationary bike or treadmill, for example), as well as your flexibility. However, considering that this book is called *Weight Training For Dummies*, we're going to focus on tests of muscular strength. You can consult a qualified medical professional or fitness trainer (or our book *Fitness For Dummies*, also by Wiley Publishing Australia Pty Ltd) for details about other fitness tests.

The term *strength testing* is somewhat of a misnomer. Strictly speaking, your *strength* refers to the maximum amount of weight that you can lift one time — also called your *one-rep max*. For example, if you can squeeze out only one Shoulder Press with 20 kilograms, that's your one-rep max for that exercise. In general it's not such a hot idea to go around testing your one-rep maxes, especially if you're a beginner. Some veterans like to go all out sometimes, but they typically test their one-rep max for just one or two exercises in a given workout. Pushing to the max places a lot of stress on your body parts and can cause extreme muscle soreness, even in experienced weight lifters.

A safe alternative to testing all-out muscle strength is testing your *muscular endurance*; you use a lighter-than-max weight and perform as many repetitions as you can. Most health clubs choose to do this type of testing. You can safely test your muscular endurance at home, too.

Table 3-1 contains a list of exercises that you can use to test the muscular endurance of each muscle group. (Actually, you can use any exercise you want, but these are some of our favourites.) We haven't included a machine option for abdominals because we believe that exercises performed on the floor are more effective. The results simply give you a reference point. Strength improves quickly once you begin lifting weights regularly.

We can't tell you how much weight to use for your strength tests because everyone's abilities are different, but we offer this helpful guideline: For each exercise, choose a weight that you think you can lift at least six times. If the weight still feels exceptionally light after six repetitions, put it down and rest a couple of minutes. Then try a weight that's a few kilograms heavier.

For exercises that use no weight — such as the Abdominal Crunch and the Push-up — simply perform as many repetitions as you can.

<i>Body Part</i>	<i>Free Weight Option</i>	<i>Machine Option</i>
Butt and Legs	Squat	Leg Press
Front Thigh	Step-up	Leg Extension
Rear Thigh	Dumbbell Leg Curl	Lying Leg Curl
Calf	One-leg Calf Raise	Standing Calf Raise
Upper Back	One-arm Dumbbell Row	Lat Pulldown
Lower Back	Back Extension	Back Extension on a Bench

<i>Body Part</i>	<i>Free Weight Option</i>	<i>Machine Option</i>
Chest	Push-up	Seated Chest Press
Shoulders	Dumbbell Shoulder Press	Shoulder Press
Biceps	Dumbbell Biceps Curl	Arm Curl
Triceps	Bench Dip	Triceps Dip
Abdominals	Abdominal Crunch	

Once you test your strength, use the results to design a weight training program that will help you reach your goals.

## *Tracking Your Progress*

Lots of people set goals. Many of them even set realistic ones. But too often, people don't fulfill their ambitions — because they didn't stick with their workout program or because their routine was improperly designed. One way to address both problems is to log your workouts in a notebook or weight training diary.

### *What to write down in your log*

Some people benefit so much from recording their weight routines (and cardiovascular workouts) that they do it on a daily basis. Other people find the paperwork annoying and prefer to keep a log for, say, one week every couple of months as a reality check. No matter how often you use your log, jotting down many or all of the following details is a good idea:

- ✓ **Your goals:** At the start of each week, jot down specific workout goals such as, 'Push extra hard on back and biceps' or 'Complete eight Push-ups.'
- ✓ **The name of each exercise:** We're talking specifics. Don't just write 'chest'; write 'Incline Chest Fly' or 'Seated Chest Press'. This way, you know whether you're getting enough variety. Plus, you'll be forced to learn the name of each exercise. We know people who have worked out for years and still refer to the Dumbbell Shoulder Press as 'that one where you push the dumbbells up'.

- ✔ **Sets, reps and weight:** Note how many repetitions you performed and how much weight you lifted for each set. Suppose that you did three sets of Leg Curls — first 12 reps with 15 kilograms, then 10 reps with 20 kilograms, and then 7 reps with 25 kilograms. You can note this by writing: ‘3’ in the set column, ‘12, 10, 7’ in the reps column, and ‘15, 20, 25’ in the weight column.
- ✔ **How you’re feeling:** We’re not asking you to pour out your emotions like a guest on *Dr Phil*. Just jot down a few words about whether you felt energetic, tired, motivated and so on. Did you take it easy or did you act like you were in Basic Training?
- ✔ **Your cardio routine:** Record how much cardiovascular exercise you did — whether it was a half hour walking on the treadmill at 7.5 kilometres per hour or 15 minutes on the stairclimber at level 6. Also note whether you did your cardio workout before or after you lifted weights.
- ✔ **Your flexibility routine:** Record the amount of time you spent stretching and how it felt. If you’re feeling really ambitious, you can record the names of the stretches or come up with names for your standard stretching routines.

See Figure 3-1 for an example of what to include in your daily workout log.

<b>Daily Workout Log</b>				
Day of the week			Date	
Goals				
Cardiovascular Training	Time		Distance	
Strength Training	Weight	Sets	Reps	Notes
Stretching		Notes		

**Figure 3-1:**  
Logging  
your  
workouts  
can help  
you reach  
your  
strength  
goals.

## *Analysing your workout log*

Your journal gives you positive reinforcement on a daily basis. Watching your progress over time is also a big boost. If two months ago you could barely eke out 10 repetitions using 15 kilograms on the Leg Extension machine and now you can easily perform 10 reps using 25 kilograms, you know you've accomplished something.

Not only can a diary keep you motivated, but recording your workouts can also help you get better results. If you're dedicating plenty of time to your weight training but aren't getting stronger or more toned, your workout diary may offer clues as to why you're not seeing results. Scrutinise your diary and ask yourself the following questions:

- ✔ **Am I getting enough rest?** Maybe you've been lifting weights every other day, but your body actually needs two rest days between workouts. An extra day of rest may give you more oomph when you lift.
- ✔ **Am I working each muscle group hard enough?** Your log may indicate that you've been neglecting a particular muscle group. Maybe you're averaging only four sets per workout for your legs compared to six or seven sets for your other body parts. Perhaps that's the reason your leg strength seems to be lagging.
- ✔ **Am I getting enough variety in my workout?** When you flip through your diary, maybe you see the words 'Bicep Curl' three times a week for the past three months, but you rarely see any other arm exercise. Maybe you've fallen into a rut. You could add new exercises or vary the number of sets and repetitions you've been doing. Or you could mix up the order of your exercises.
- ✔ **Am I lifting enough weight?** Maybe you never write down the words 'tough workout'. Perhaps picking up the 6 kilogram dumbbells for your bicep curls has become such a habit that you forgot to notice that those 6 kilogram weights now feel light.
- ✔ **Am I doing my cardiovascular exercise before my weights or after?** Maybe you've been doing 30 minutes on the stairclimber before your weight sessions — and are, therefore, worn out before you even lift a single weight.

## Be All That You Can Be

Arresting thugs, steering a submarine and pulling people out of burning buildings may not be among your aspirations in life. However, you might get a kick out of knowing whether you're strong enough to be a policeman or a firefighter. The following sections include tables that show you the fitness requirements for some physically demanding jobs.

### *Fire and Rescue NSW*

Here are the physical requirements that the last Australian heroes must meet, to win the privilege of saving lives and hauling hundreds of kilograms of equipment into burning buildings. These standards apply to both men and women. Applicants must do the following:

- ✓ **Shuttle run (cardiovascular fitness):** Wearing running clothing, you undergo a multi-stage shuttle run assessment (also known as a beep test). This assessment requires you to run at an increasing pace between two markers set approximately 20 metres apart. You have to maintain pace until Level 9, Shuttle 6 of the test.
- ✓ **Functional strength:** The remainder of the test requires you to complete the following tasks in succession, in under 16 minutes. You are required to wear a coat, over-trousers, helmet, gloves and a breathing apparatus (without the face mask), to simulate the weight of firefighter protective equipment.
  - **Ladder climb (leg strength):** You are required to climb a 10.5 metre extension ladder, one rung at a time, to the second level of a training tower, dismount over the railing onto the landing, remount the ladder and return to ground level. You must complete this in under a minute.
  - **Hose coupling (dexterity):** You have to disconnect and reconnect three different types of hoses.
  - **Ladder raise test (upper body strength and torso isometric strength):** You are required to lift a 10.5 metre extendable ladder (not extended — 6.8 metres) from the ground and raise it hand over hand from underneath till the ladder is hard against a wall (vertical). The foot of the ladder will be mounted at the base of the wall on a rotating bracket.



- **Tunnel crawl (whole body functional strength):** You have to crawl through a 15 metre tunnel wearing a frosted face mask, before turning back and crawling back the other way.
- **Beam walk (core strength and balance):** Carrying standard bolt cutters, you are required to walk forwards along a balance beam for 2.5 metres, turn around, and then walk backwards for the remaining 2.5 metres, so that you walk 5 metres in total.
- **Chain cutting (upper body strength):** You are required to make two cuts through an 8 millimetre thick, galvanised chain link.
- **Hose reel drag (upper and lower body strength, power and endurance):** You have to take a 25 millimetre thick hose from the back of a fire truck, drag the hose in a straight line towards a 20 metre barrier, turn 45 degrees around the barrier and drag the hose a further 10 metres to a small marked square. Once you've placed the hose on the ground, you must pull in a further 10 metres of hose, while remaining in the 1 metre by 1 metre square. You have 50 seconds.
- **Hose drag and hold (upper and lower body strength and endurance):** You need to drag a hose for 10 metres to a designated 1 metre by 1 metre square. Then you must turn the hose on, and direct its flow for four, 30 second holds at two different targets. You must not leave the square.
- **Tower climb and container haul (cardiovascular fitness, upper and lower body strength, power and endurance):** You are required to carry a 12 kilogram backpack up three flights of stairs to a balcony. Once on the balcony, you pull a 10 kilogram drum (attached to a rope) from the ground floor up to the balcony. You have 75 seconds. You then must carry the 12 kilogram backpack up another three flights of stairs, climb a ladder to the seventh floor (without the backpack) and, once at the top, look down at the ground where you'll need to identify three objects on flashcards. What a way to test your fear of heights!
- **Firefighter rescue (whole body strength):** You are required to safely lift and drag/carry a 90 kilogram dummy around a 20 metre square course, in a maximum of 60 seconds.

## *The New Zealand Police Force*

To become a New Zealand police officer, you need to be in excellent physical health and pass four key elements of the Physical Appraisal Test. See Tables 3-2 and 3-3 for more details.

<i>Exercise</i>	<i>Under 20 Years</i>	<i>20–29 Years</i>	<i>30–34 Years</i>	<i>35–39 Years</i>	<i>40 Years and Over</i>
2.4 kilometre run	10 mins, 15 secs	10 mins, 50 secs	11 mins, 30 secs	12 mins, 10 secs	13 mins, 15 secs
Vertical jump ability	At least 48 centimetres				
Grip strength	A combined total of at least 96 kilograms				
Continuous push-ups	At least 34, using correct form and technique as described in Chapter 15				

<i>Exercise</i>	<i>Under 20 years</i>	<i>20–29 years</i>	<i>30–34 years</i>	<i>35–39 years</i>	<i>40 years and over</i>
2.4 kilometre run	12 mins, 54 secs	11 mins, 50 secs	12 mins, 25 secs	13 mins, 10 secs	14 mins, 10 secs
Vertical jump ability	At least 40 centimetres				
Grip strength	A combined total of at least 52 kilograms				
Continuous push-ups	At least 20, using correct form and technique as described in Chapter 15				

## *The United States Air Force Academy*

The United States Air Force Academy (USAFA) not only requires you to be fit when you join, but that you *stay* fit once you're employed. See Tables 3-4 and 3-5 for the minimum requirements you need to be employed by the USAFA.

The following list describes the exercises in the USAFA physical fitness tests:

- ✔ **Sit-ups:** Do as many bent-knee Sit-ups as you can do in two minutes.
- ✔ **Push-ups:** Perform Military Push-ups as described in Chapter 15.
- ✔ **Running:** Run for 2.4 kilometres.

<i>Exercise</i>	<i>Under 30 Years</i>	<i>30–39 Years</i>	<i>40–49 Years</i>	<i>50–59 Years</i>	<i>60+ Years</i>
Sit-ups (2 minutes)	42	39	34	28	22
Push-ups (2 minutes)	33	27	21	15	14
2.4 kilometre run	*13 mins, 36 secs	*14 mins	*14 mins, 52 secs	*16 mins, 22 secs	*18 mins, 14 secs

*\*Maximum time limit*

<i>Exercise</i>	<i>Under 30 Years</i>	<i>30–39 Years</i>	<i>40–49 Years</i>	<i>50–59 Years</i>	<i>60+ Years</i>
Sit-ups (2 minutes)	38	29	24	20	11
Push-ups (2 minutes)	18	14	11	9	7
2.4 kilometre run	*16 mins, 22 secs	*16 mins, 57 secs	*18 mins, 14 secs	*19 mins, 43 secs	*22 mins, 28 secs

*\*Maximum time limit*

## *Medicals*

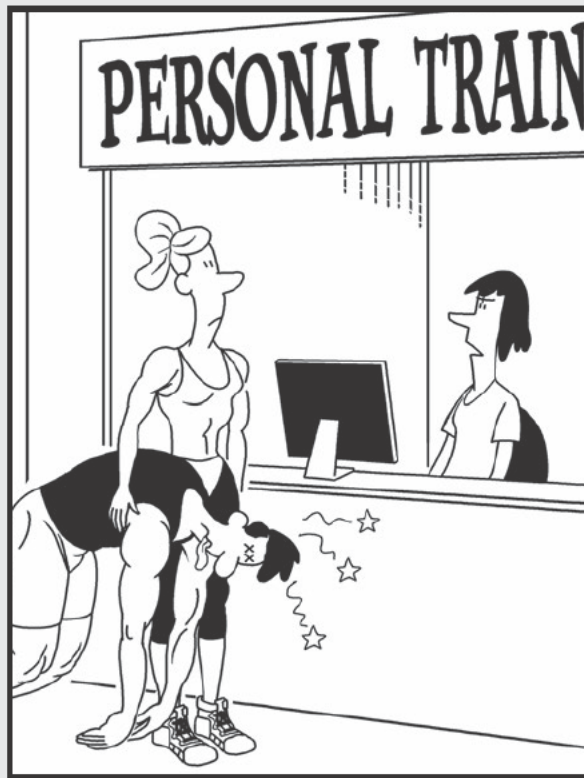
Before commencing a weight training program we suggest that you start with a check-up with your local doctor. If you are feeling off-colour and stressed, it is important that this is checked before you start pushing too much weight. There is a tendency for people who feel overweight and overstressed to overdo it, and having a medical check-up at this time makes sense. Also, we recommend that everyone has a full physical check-up at least once a year regardless of their fitness level.



# Part II

# Weight Training Wisdom

*Glenn Lumsden*



*'Madam, that's the third personal trainer  
you've wrecked this week . . . don't you  
think you're buff enough?'*

## *In this part . . .*

**P**art II is free of technical mumbo jumbo. This part helps you decide whether to lift weights at home or at a gym and shows how to save money either way. We recommend strength equipment to fit every budget and caution you against health club scammers. We help you choose a weight training mentor, whether you go for a personal trainer, a body-sculpting teacher or an exercise DVD instructor. We also give you the lowdown on weight training etiquette: Just because you may be wearing tight shorts, dripping with sweat and stinking up the joint doesn't mean that you can't show some courtesy.

## Chapter 4

# Joining a Gym or Exercising at Home: Which Is for You?

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### *In This Chapter*

- ▶ Discovering the advantages of joining a gym
  - ▶ Working out at home
  - ▶ Finding a gym that suits you
  - ▶ Buying free weights
  - ▶ Checking out multi-gyms
  - ▶ Looking at rubber exercise bands
- 

**I**s it better to lift weights at a health club or at home? That's like asking whether it's better to drive a ute or a station wagon. The answer depends on your personal needs.

In this chapter, we help you decide whether to invest in a gym membership or weight equipment for your home — or to cover your bases and do both. We help you size up a gym's equipment, staff, atmosphere and facilities, and we tell you how to avoid getting suckered by an unscrupulous salesperson. On the home-gym front, we help you decide which gadgets to buy, where to shop and how much to spend.

## *Joining the Club*



For the uninitiated, walking into a gym for the first time can be plenty intimidating. Kim Smith laughs when she recalls her first visit to the club she now belongs to. 'I was sure that everyone was staring at me — I could feel the walls closing in. I looked at the equipment and said, "No way. I can't do it." I thought I'd break the machines and they'd make me pay for them.' Even though the club's staff treated her kindly, she was too overwhelmed to join. 'I walked out and said I'd be back on Monday,' Smith recalls. 'But I didn't come back until four years later.'

You may feel overwhelmed when you walk into a club, but don't let those feelings prevent you from signing up. Within a few sessions, your terror of the triceps machine will seem unwarranted, and the club will start to seem as familiar as your own neighbourhood. Here are a few of the many great reasons to become a health club member:

- ✔ **Equipment choices:** Even if you buy a top-notch multi-gym for your home, it's going to have only one or two stations for training each muscle. At a gym, you may have a half dozen machines for your back muscles alone, including newfangled contraptions that haven't yet reached the consumer market or are too expensive or too large for home use.
- ✔ **Advice:** At a good gym you have staff members walking around who can remind you how to do the perfect Back Extension or how to adjust the calf machine. You also have a room full of members with healthy egos who love to spew advice.
- ✔ **Safety:** Weight training isn't inherently dangerous, but if you do happen to get stuck underneath a 50 kilogram barbell, at least you have people around to rescue you. You also have plenty of spotters to choose from; at home your only option may be to drag your uninterested spouse in from watching *Seinfeld* re-runs. As we explain in Chapter 2, you want a spotter with a bit more enthusiasm than that.
- ✔ **Motivation:** Once you're inside a health club, you've eliminated all of your excuses not to exercise. There's no laundry that suddenly needs to be folded, no iTunes library that needs organising this instant, no lint crying out to be picked up off the rug. Pretty much your only option is to work out. Besides, the atmosphere of a club makes you *want* to work out. You see people of all shapes and sizes pumping and pushing and pulling, and you can't help but be inspired to do the same.
- ✔ **Cost:** A typical health club membership costs \$500 to \$2,000 a year, depending on where you live and what type of facilities the club offers. Home weight equipment may cost you less over a period of years, but unless you're a member of the Packer or Murdoch families you probably can't afford to update your equipment as often as health clubs replace their contraptions. In order to stay competitive, many gyms turn over at least some of their equipment every year, if not more often. So if you like having new toys to play with, joining a gym is a good idea.
- ✔ **Relaxation:** Ironically, a health club may be just the remedy for busy people who say that they don't have time to go to one. At the gym, you're free from stress and distractions. The phone doesn't ring. Your kids don't beg you to watch *Toy Story 3* for the 127th time. Your boss can't assign you a last-minute report.



- ✔ **Other facilities:** Weight training is only one component of fitness. As we explain in Chapter 20, aerobic exercise is equally important. At a gym, you have an array of treadmills, stationary bikes, stairclimbers and other elliptical trainers. You might also find a sauna, a steam room, a swimming pool and a snack bar that serves fresh-fruit smoothies.

## *Lifting Weights at Home*

Great as we think health clubs are, they're not the right choice for everybody. Here's when to consider working out at home:

- ✔ **You live too far from a gym.** Although there are thousands of fitness centres in Australia and New Zealand, not everybody lives near one of them. If you don't live or work within 10 minutes of a club, lifting weights at home may be your best option. Or if you can afford it, join a club that you can get to on days when you have time, but also invest in some basic weight equipment at home for days when you're too busy to make the drive.
- ✔ **Your schedule.** If your club doesn't have child care or you can't leave the house for some other reason, buying your own equipment makes sense. The same applies if you work wacky hours and the gym's schedule doesn't jibe with yours. If your den is equipped with dumbbells and a bench, you can exercise at 4 am on Sunday if you want. Er . . . not that you'd want to . . . would you?
- ✔ **You're self-conscious.** If you can't bear the thought of exercising in front of other people — or just need a little time to get used to what you look like in a pair of athletic shorts — by all means, work out at home. DVDs (or a personal trainer) can give you instruction and help keep you motivated. However, don't let self-consciousness keep you away from a club for too long if you have other compelling reasons to go. For the most part, health club members are too busy looking at themselves in the mirror to notice what you look like.
- ✔ **You don't like crowds.** Some people simply like to be alone with their dumbbells.

## *Choosing a Gym*

Many people have no choice. If your neighbourhood has only one club, that's the one you probably need to join, even if the facilities aren't top-notch. You're more likely to use the mediocre club around the corner than the first-rate gym that's 45 minutes away. If you learn a routine of basic exercises, you can get a good workout in just about any facility that calls itself a gym.



Of course, there are exceptions: Suzanne once was in the weight room on the ship of a cheap cruise line that shall remain nameless. The dumbbells weren't marked, so you had to pick up each weight and say, 'Well, this *seems* like it weighs about 10 kilograms.' Worse, some dumbbells were missing their mates, so you couldn't do exercises like chest presses or lateral raises. The experience was so frustrating that Suzanne abandoned her workout and instead went to try karaoke in the Tahiti lounge.



Don't be scared off by the name of a health club or the size of the people who work out there. Among the general public, Gold's Gym franchises seem to have a reputation of catering only to serious bodybuilders. In reality, Gold's clubs — like any other chain clubs — cater to people of all ages and ability levels. We know a 94-year-old woman who belonged to a Gold's Gym. Sure, some gyms attract more serious lifters than others, but believe us, at virtually every gym in Australia and New Zealand, there are people like you. Besides, you can learn a lot from hanging around veteran lifters.

On the other hand, if you do have a choice of clubs, weigh your options carefully. When you tour a club, you may want to bring the following checklist of factors to consider. Walking into a new gym can be overwhelming, and you may get distracted while fending off a relentless sales pitch. Take your time: Don't let your tour guide rush you through the weight room or the locker area. Here are some points to keep in mind as you consider joining a gym:



- ✓ **Hours of operation:** Some gyms are open 24 hours a day, seven days a week; others close at noon on weekends. Make sure that the hours of operation fit your schedule.

- ✓ **The cancellation, freeze and refund policies:** Many gyms let you put your membership on hold for medical or maternity leave. Most states have laws that allow you to cancel within three days of joining with a full refund. However, some clubs are so stingy that you may have to threaten legal action to get them to comply with this law.



- ✓ **Qualifications of the staff:** Even though there are minimum educational requirements you need to work as a personal trainer, anyone can start their own business, call themselves a trainer and effectively get away with it. At a gym that Liz manages, she placed an advertisement for trainers and received at least two applications from residents of the local prison. It wasn't so much the felony convictions that bothered her; it was the fact that these people's only experience was pumping iron in the prison yard. Liz's club turned down their applications, of course, but you never know where these people might have ended up upon their release.

- ✓ **Cleanliness:** Make sure that there are no substances in the showers that resemble anything you grew in a test tube in high school biology class. Remember that you're joining a gym to *improve* your health, not destroy it. We have been in clubs where seeing a roach crawling across the locker room was pretty much a daily occurrence. Ugh.
- ✓ **Equipment quality:** The quality of free weights doesn't vary much, but it's *not* a good sign if the plates on the dumbbells rattle around or you see lots of 'Out of Order' signs scattered around on various contraptions. High-quality weight machine brands include Avanti, Cybex, Nautilus, Galileo, Body Masters, Hammer Strength and Precor. Try out a few machines. Do they move smoothly? Is the weight stack rusted? These are subtle signs relating to how well the management takes care of the gym.
- ✓ **Friendliness of management:** Do the gym staffers behind the front desk greet you with a smile or are they standing in a clique gossiping about the members? If the staff isn't accommodating before they've made a sale, think about how they'll act *after* you've signed on the dotted line. Even if you're not dependent on trainers, you may need them at some point. Maybe they'll waive the \$5 penalty on the day that you forget your membership card. Or maybe they'll allow your visiting sister to sneak into the club for free.
- ✓ **Cost:** Cheaper isn't always better. If the club's machinery is always broken or the bathrooms are cleaned monthly or not at all, you may pay more in doctor's bills for injuries and infections than you do for your monthly membership.
- ✓ **Extra conveniences:** Some gyms have blow dryers in the locker rooms, internet access on the cardiovascular equipment, membership competitions and special guest instructors — little extras that keep you motivated over the long haul.
- ✓ **Affiliation with other clubs:** If you travel a lot, consider joining a club that is affiliated with gyms around the country. Large chains may not have the most qualified staff or offer the most personalised attention, but you can save money on guest passes.

## *Designing a Home Gym*

Just as you don't want to rush into buying a gym membership, you should put some time and thought into creating a home gym. Before you purchase any equipment, consider the following questions. (This section deals only with weight training equipment; you need to consider any cardiovascular equipment, such as a treadmill or stationary bike, separately.)

## *How much space do you have?*

If you have virtually no space for weight equipment, your best bet is a set of rubber exercise tubes that come with door handle attachments. However, we think that you can build greater strength and size using dumbbells and a weight bench, so make room for these gadgets if at all possible.

## *What are your goals?*

Make sure that you buy equipment that can help you reach your goals. If you want to build some serious muscle, a couple of sets of dumbbells isn't going to cut it. In fact, you may need to buy a dozen pairs of dumbbells, and a free weight bench, too. Just make sure your goals jibe with the amount of space you have available: If you live in a tiny apartment but want to live in a body like Jackie Chan's, you may have to unload your bed, coffee table, television, refrigerator and stove in order to make space for your weight equipment. (Don't laugh — we know people who have done this.) If your goal is to develop moderate strength and muscle tone, your best bet is to buy an adjustable weight bench and several pairs of dumbbells.

## *How much money can you spend?*

The cheapest (and smallest) weight training gadget you can buy is a rubber exercise band, which will set you back less than \$10. However, as we explain in Chapter 1, there are limits to the amount of muscle strength you can develop for the price of two McDonald's Happy Meals. On the other hand, you don't need to raid your retirement account in order to build a firm, strong body. For \$200 to \$500 you can buy an adjustable weight bench and more than enough dumbbells. If you have an extra thousand or two lying around, go ahead and purchase a multi-gym for variety. By the way, if you're tight on money, don't even think about buying any weight training gizmo off of the TV. Read Chapter 28 and you'll understand why.

## *Will you be using DVDs?*

If you plan to use weight training DVDs, we suggest you invest in dumbbells and an adjustable weight bench (or at least a step aerobics platform, which can double as a bench). Many DVD exercises also use rubber exercise bands, ankle weights, barbells or fitballs. So when you buy new DVDs, make sure that you have (or are willing to buy) the necessary equipment.



## When a 'deal' isn't a steal

Georgia walked into a large Sydney gym and asked one simple question: How much does a yearly membership cost? 'The woman behind the counter refused to tell me,' she recalls. 'She said, "I have to take you on a tour of the weight room, and then you have to see the locker rooms, and then you have to speak with the manager." She acted like I was asking for classified information that might compromise national security.'

Getting the facts you want from a health club often requires persistence and savvy. Here are some tips to prevent you from getting ripped off:

- ✔ **Stand your ground.** Gym salespeople may quote what seems like a reasonable price, but by the time you get finished adding in all the options like locker space and towel service, they've doubled the price of admission. (Some clubs are as chintzy as restaurants in Rome that charge you for the use of the tablecloth and silverware.)
  - ✔ **Ask what the price includes.** If it doesn't include an item you want, such as an extra training session, ask if the salesperson will toss it in to make the sale. As our mothers always say, you never know until you ask. Also, don't let the salespeople cheat you out of the advertised price. If you see an ad in the paper, bring it with you to the club. If you heard an ad on the radio, note the station and the time it aired.
  - ✔ **Don't be insulted.** Some salespeople try to assault your self-esteem to get you to join or to sign up for extra training sessions. They may imply that you're fat and that the only way you could go out in public without embarrassing yourself is to lose weight at their gym. Remember, many health club salespeople work on commission, so they'll say just about anything to make a sale.
- One friend of ours managed to get a decent membership price, but he wasn't off the hook so quickly. 'During my free training session, my trainer asked what my goals were, and I told him I wanted to stay healthy. He said, "Well, most guys want to get big." And I said, "Well, I don't want to get big. I just don't want to get fat." He didn't really feel satisfied with my answer. He wanted me to sign up for a whole bunch of training sessions so that I could get big.'
- ✔ **Don't rush into your decision.** The gym will be there tomorrow. And if it isn't, you'll be glad you didn't sign up, right? Not long ago, a Sydney gym was selling memberships right up until the day before it closed its doors. This happens more frequently than we care to think.
  - ✔ **Don't pay an initiation fee if you can help it.** Some gyms waive this fee during certain times of the year or if you join with a family member — or if you're persistent enough.
  - ✔ **Don't sign up for more than a year.** Many states have laws that forbid lifetime and long-term memberships. But there are loopholes in the law, and even when there aren't, disreputable salespeople may try to snow you. You don't know where you'll be a year from now—and more importantly, you don't know where the gym is going to be a year from now. Many gyms have monthly memberships that are slightly more expensive than buying a whole year, but these month-to-month deals may be a better deal for you if your life is in flux.
  - ✔ **Join with a friend and ask for a discount.** And know that the best sales are usually in the slower winter months. Some clubs give you a discount if you recommend a friend to join.

## Free Weight Options

If you're just starting out, dumbbells are a more practical purchase than barbells because they're more versatile. You may want to save barbells for your next shopping spree. In terms of quality, where you buy free weights doesn't much matter, whether you go to a sporting goods store, department store, specialty shop or garage sale. A specialty weight shop may offer the best selection, but prices may be higher.

### Buying dumbbells



The biggest mistake people make when buying dumbbells is investing in a pair of 5 kilogram weights and then using them for every exercise. We suggest starting with eight or nine pairs. For women who are beginning lifters, we recommend dumbbells weighing 1, 1.5, 2.5, 3.5, 4.5, 5.5, 7 and 10 kilograms. For novice men: 3.5, 4.5, 5.5, 7, 10, 11.5, 13.5, 16 and 18 kilograms. As we explain in Chapter 16, to get good results you need to lift precisely the right amount of weight for each exercise.

So what's all of this going to cost? The answer depends on how fancy you want your weights to be. Dumbbells cost about \$1 to \$5 per kilogram, depending on which part of the country you live in, where you buy them and whether you catch a good sale. (That would mean about \$300 to \$600 for the women's set and about \$600 to \$1,200 for the men's.) Hexagonal dumbbells (called *hexes* by those in the know) tend to be less expensive. Plastic-coated dumbbells are cheaper, but we're not fond of those because the plastic tends to rip over time.



Liz once owned a pair of dumbbells that started to leak; every time she pressed the dumbbells overhead, a few grains of sand would fall into her mouth or eye. The most expensive dumbbells are the shiny chrome ones with contoured handles. You can see your reflection in the ends of the really top-drawer ones. You find these in ritzier health clubs and in home gyms that try to emulate ritzy health clubs.



We recommend buying a rack to store your dumbbells. Racks save space, and they keep your house looking tidy so that your mother won't have to step over your weights if she stops by unannounced. Also, a rack can save you from injury because you don't have to constantly bend over and lift the dumbbells off the floor. Don't be surprised if a rack costs more than the dumbbells you're storing. A \$400 to \$600 rack should be adequate, but you can pay up to \$1,600 for a three-tiered, chrome rack.

## Strength training on the road

If you're looking for an excuse to skip your weight training workout, vacations and business trips won't cut it. You can keep your muscles strong no matter where you go, whether your destination is Karratha, Western Australia, or the Mongolian desert.

Of course, you may not always find a gym with 14 shoulder machines and aromatherapy baths. While touring Micronesia, Suzanne worked out at Yap island's only gym — a tin shack where the locals hoist rusty barbells while chewing betel nut, a mild narcotic that stains your teeth red. In Nairobi, she lifted weights at a club where staff members had to boil water on a stove in the weight room because the water wasn't safe to drink. The bottom line: You can always make do.

Strength training on the road is well worth the effort. Even fitting in one short workout a week can help you maintain the strength you've worked so hard to build. Here are some tips for getting in a strength training workout away from home:

- ✔ If possible, book a hotel with a gym. Some hotel gyms have facilities that rival those at regular health clubs, including personal trainers, towel service and massage. And these days, even many of the less posh hotel gyms offer a decent array of free weights and weight training machinery.
- ✔ Look for a gym in the neighbourhood. If your hotel doesn't have a gym, ask the concierge, or simply open up the phone book and look under 'health club' or 'fitness.' Expect to pay \$15 to \$20 per session. Some upscale Sydney and Auckland clubs charge as much as \$30 — we say go elsewhere.

- ✔ When you work out away from your home club, expect to sign a waiver essentially saying that any torn muscle, broken bone, or smashed toenail you sustain is your fault and yours alone. If you are in a gym that's foreign to you, stick to free weight exercises and machines that you recognize (unless you ask someone on staff to help you). This isn't the time to test whether you have a knack for figuring out how weight training contraptions work.

By the way, one of the best reasons to find a local gym has nothing to do with your muscles. 'You get to meet the locals and find out about the least crowded beaches, and the best place to go for a beer,' says Alec Boga, an avid traveller from California, who has lifted weights in Thailand, Costa Rica, Zimbabwe, Venezuela and Fiji, just to name a few countries. 'The equipment might be good or bad, but you just ad lib and enjoy talking to the people.'

- ✔ If you have no access to weight equipment, pack a rubber exercise band. You can perform dozens of exercises with a single band, which takes up about as much space as your travel toothbrush. See Chapter 27 for band exercises.
- ✔ As a last resort, lift your own body weight. If you get stuck without even a band, you can do no-equipment exercises such as push-ups, crunches, back extensions, squats and lunges. On a South Pacific island that had no gym at all, Suzanne did push-ups and lunges in her hotel room; she had to perform them naked because the place had no airconditioning and was far too hot and humid for her to even have considered exercising while clothed.



If you're short on space or money and buying eight pairs of dumbbells is impossible, consider an adjustable dumbbell kit. You get two short bars and a number of round plates that you clamp on with collars. Just beware: The plates tend to rattle around, and you may find it annoying to constantly pop off the collars and add or subtract weight plates. Making these adjustments can add precious minutes to your workout. Worse, you may be tempted to skip the adjustments and use the same weight for several exercises.

## *Buying barbells*

Unless you're related to the Sultan of Brunei, you'll probably find it too expensive and too space-consuming to buy a whole array of fixed-weight barbells, as we recommend you do with dumbbells. It's more practical to buy an empty bar and clip on the weights yourself. You can buy bars that weigh 7 to 14 kilograms, although the most popular bars are the heavier bars used in health clubs.

Barbells cost about the same per kilogram as dumbbells, although you may find them for less, if you're lucky. Most stores sell variety packs, often called Olympic packs, which come with a whole assortment of plates weighing a total of 90 to 140 kilograms.



As with dumbbells, we recommend buying a barbell rack. Vertical racks (about \$200 to \$400) take up less space and are less expensive than horizontal racks (about \$600 to \$1,400). However, it's more awkward to place a bar into a vertical rack. You can store your plates on a weight tree, a contraption that has several rungs. Weight trees come in an astonishing variety of shapes and sizes and typically cost about \$150 to \$400.

We also recommend buying collars to keep the weight plates from sliding off the bar.

## *Buying a bench*

If you want to buy a bench for your home, your best bet is an adjustable incline bench — one that adjusts from a flat position all the way up to vertical. The decline feature shouldn't be a high priority because you won't use it very often, if at all.



Before you buy a bench, sit on it, lie on it, drag it around, adjust it, and inspect it. Look for a high-quality Naugahyde, leather-like material used to cover all seat and back pads.



Good flat benches start at about \$200 and run upward of about \$800 for extra-thick padding and high-quality hardware. Adjustable incline and decline benches are in the \$400 to \$1,200 range. Make sure the incline mechanism is secure and easy to manipulate. With some cheap brands, the pin that holds the back rest upright tends to slip out or, even worse, break off. Good bench brands include Avanti, Hoist, York, Precor, Paramount and Tuff Stuff. These are the brands you're also likely to encounter at the gym, along with Galileo, Cybex and Body Masters.

## *Investing in Weight Machines*

Obviously, it's not practical to put an entire line of weight machines in your home, unless you're willing to take out a second mortgage to pay for the weights and for the new wing of the house you'll need to build. A more reasonable alternative is a multi-gym (see Figure 4-1), which combines several weight lifting stations into one frame. Most multi-gyms have one or two weight stacks, meaning that one or two people can work out at a time. Good multi-gyms give your muscles a sufficient workout, although most models don't feel as smooth or as solid as health club machines.



**Figure 4-1:**  
You can buy  
a multi-gym  
to work out  
at home.



## Join your own home gym

Even if you're not interested in joining a health club, you may want to incorporate aspects of the gym experience into your home workouts. Adding the following health club features to your home gym can boost your motivation and sense of purpose.

- ✔ **A sign-in sheet:** When you go to the health club, you have to sign in at the front desk to prove you were there. We suggest you record your attendance at your home gym in a workout log or even create your own attendance sheet that you can tape to the door or keep on top of your filing cabinet. Signing in at the beginning of your session reinforces your commitment to weight training.
  - ✔ **A mirror:** The purpose of a mirror is not simply so you can smile at your reflection and admire your new, improved body. You need a mirror to check your form, especially when you're doing free weight and band exercises. Just make sure you watch where you put your dumbbells and barbells. If you leave them on the floor, they may roll around and crack the mirror. (We've never been to a gym that *didn't* have a mirror crack at one time or another. The best way to avoid this problem is to invest in a dumbbell rack.) Any mirror will suffice as long as it's big enough for you to see your entire body when you're standing with your arms spread wide.
  - ✔ **A stretching mat:** A mat is useful for doing strength training exercises on the floor, such as abdominal crunches and side-lying leg lifts. (And, of course, it's useful for stretching.) You can substitute a towel or blanket, but these tend to bunch up.
- Most stretching mats can be folded up and placed in a corner or underneath your weight rack. A good mat costs \$20 to \$100. There's little difference between the cheap mats and the expensive ones, except in the thickness of the padding, the quality of the surface covering and the way they store (the cheap ones roll, the better ones fold). The mat should be long enough so that it fits your body from the top of your head to your tailbone. The padding should be cushy enough so that your knees don't dig into the floor when you do the Modified Push-up and other exercises that require kneeling.
- ✔ **A rubber mat to place under the equipment:** These mats look like the rubber mats on the floor of your car. They help cut down on noise and vibration to the floors below, and they help protect your floors and rugs. Mats are particularly good to put under equipment that leaks oil, such as multi-gyms and treadmills. Some mats are custom-designed to fit under specific pieces of equipment.
  - ✔ **Proper attire:** Health clubs require you to wear freshly laundered exercise clothing so that the grime from your jeans, leather belts and work shirts doesn't soil the pads on the weight equipment (and, er, exercise wear is designed for exercising in. Workwear isn't). Follow the same rule at your home gym, too. You'll prolong the life of your equipment. Plus, it's a lot more motivating to work out when you're wearing lycra shorts and a T-shirt than when you're trying to do the Bench Press in a business suit.

A decent multi-gym will cost you at least \$1,500. Buy from equipment specialty stores, not from department stores and certainly not from TV infomercials. Visit several stores to compare prices, chat to different salespeople, and consider leasing the equipment rather than buying it outright — it might work out cheaper. If you don't live near a specialty store, call the manufacturers and ask for the dealer closest to you. Most top brands have a dealer in every nook and cranny in the country, as well as in many parts of Europe, Asia and Africa. In some cases, it's cheaper to buy directly from the manufacturer. Good multi-gym brands include Avanti, Parabody, Paramount, Universal, Vectra, Pacific, Hoist Weider Pro and Proform. Here are some tips for buying multi-gyms:

- ✓ Look for sturdy and thickly padded seats that are covered with durable material.
- ✓ Look for machines that use plastic-coated cables as opposed to chains or giant rubber bands. Check all cables for imperfections and fraying.
- ✓ Try out every exercise station. Some may feel comfortable, while others make you feel like your arm is about to be ripped out of its socket. Look for a weight stack that moves smoothly up and down. Some machines that move smoothly at heavier weights become wobbly and sticky when you're lifting only one or two plates.
- ✓ Make sure that the parts are easy to adjust. You don't want to waste half your workout fiddling with the arm and seat adjustments so that the machine fits your body.
- ✓ Look for free assembly. Forget about those 'easy-to-follow' directions. Trying to put some of these contraptions together yourself is like trying to build a space shuttle with a step-by-step manual.

## *Buying Bands*

Make sure that you buy bands or tubes specifically designed for exercise, instead of the kind you use to keep your mail together in the office. Office rubber bands aren't strong enough for you to constantly pull on, so there's a pretty good chance of getting whacked in the face when one breaks. See Chapter 27 for a complete band workout, helpful tips on using bands and a description of our favourite band products.



## Chapter 5

# Choosing Your Guru: Trainers, DVDs and Exercise Classes

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### *In This Chapter*

- ▶ Finding a qualified trainer
  - ▶ Making the most of your training sessions
  - ▶ Choosing a weight training DVD
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**E**liza Doolittle had Henry Higgins. Lleyton Hewitt had Pat Rafter. Who's going to be *your* mentor? If you're a weight training novice, you can progress more quickly if you have a seasoned professional to follow — someone who can teach you the ropes and keep you motivated when you'd rather scan the latest internet postings on flyfishing.com. Even veteran lifters have a lot to gain by checking in with a pro from time to time. In this chapter, we introduce you to a variety of mentor options, including a fitness trainer, a body-sculpting instructor and a DVD leader. We tell you who's qualified to teach you and who isn't. We explain what qualities to look for in a weight training guru and what you can expect to learn from a trainer, a class or a DVD.

## *Everything You Need to Know about Trainers*

This book offers detailed instructions for dozens of exercises and plenty of ideas for designing your own workouts. Still, we think that getting personal instruction at least three times is valuable for anyone who lifts weights. If you join a club, you should automatically get a free training session on top of a fitness evaluation. Ask in advance, and you may even get extra free sessions. If you lift weights at home, you can hire a trainer

for a couple of sessions to get you up and running. (If a trainer isn't an option for you, a good DVD can augment what you learn in this book, although when you're an absolute beginner, a DVD is no substitute for hands-on instruction.)

## *What a fitness trainer can do for you*

Fitness trainers have become famous for firming up fleshy actors and actresses for their roles as river-rafting guides, prize fighters and psychopaths. Here's what a good fitness trainer can do for you.

### *Perfect your technique*

A trainer can offer subtle pointers to improve your weight lifting form. Even if you do your best to follow instructions like 'Keep your arm parallel to the floor', you may not be able to tell whether your arm is in precisely the right position. Once you know what it feels like to perform an exercise the right way, you're likely to keep using good technique when you're on your own.

### *Show you alternative exercises*

A trainer can help you build on the exercises in this book, showing you additional moves that meet your specific needs and preferences. If you become enamoured with the cable machine, a trainer can show you enough cable exercises to keep you entertained for eons. If you're pregnant, a trainer can show you how to perform abdominal exercises without lying on your back and hamstring exercises without lying on your stomach.

### *Introduce you to the equipment*

Each brand of equipment has its own quirks. The seat adjustment for one Lat Pulldown machine (see Chapter 8 for a description) may work by a different mechanism than it does for another, even though the machines strengthen your back muscles in the same way. A trainer can teach you about the intricacies of each machine in your health club or home gym.

### *Design or update your program*

If you wanted to, you could come up with a new routine every day for the rest of your life. A trainer can help you expand on our workout suggestions and design routines that fit your specific schedule, whether you work out three days a week for 20 minutes or twice a week for an hour. Trainers also come in handy if you're working towards a specific goal; preparing for the ski season requires a different type of routine than getting ready for a backpacking vacation.



### *Keep you motivated*

Some people would not even consider getting out of bed, let alone lifting a weight, if they did not have a trainer standing over them saying, 'Okay, Trevor, ten shoulder presses, *now!*' Others can get by with a motivational boost every month or two, working out on their own the rest of the time. And then there are those who rely so much on their trainers for inspiration that they actually bring them along on holidays. We kid you not.

## *Who's a qualified trainer?*

*Fitness trainer* is about as meaningful a term as *internet consultant* or *marketing liaison*. In terms of skills and education, it doesn't mean a thing. We know a group of private trainers who hang a large sign outside their gym that says 'World Class Personal Trainers', yet only one of the group's half dozen trainers is even certified by a single professional organisation. Here are some tips to help you find a trainer you can trust. It's not always possible to assess a trainer in one interview or even in a couple of sessions, so if you start to sour on the first trainer you choose, don't hesitate to find another one.

### *Look for certification*

Although there are no laws on the books requiring trainers to have any particular training or certification, more and more trainers are becoming certified by professional organisations and university programs. Many gyms now require their trainers to have at least one certification, and as the personal training profession becomes increasingly competitive, many private trainers are earning certifications in order to stay ahead of the competition. This surge in certifications is good news for the consumer. A certification doesn't necessarily mean that a trainer is the most knowledgeable and skilled in the field, but it does show that your trainer considers fitness a serious career choice, not just a way to pay the rent between acting gigs or when the auto repair business is slow.



One good way to make sure your trainer is the real deal is to ask for his Fitness Australia registration. Fitness Australia is the governing body for the fitness industry, so to be registered, a trainer needs to meet the minimum education requirements. As well as asking for a trainer's registration, you can ask what *level* registration she has. There are four levels, which are awarded based on a combination of both education and experience. A Level Four registration is the highest ranking; Level One is the lowest. The higher their level of registration, the better their level of education and experience is likely to be.





A number of certifications require several days of seminars taught by fitness experts and a passing grade on a written exam. Some exams require trainers to analyse videotaped exercises, pointing out which muscles are working at various points in the exercise and any technique mistakes the lifter may have made. But beware: We recently came across a certification offered over the Web that involved answering a few questions and paying \$90. You could take the test as many times as you wanted and didn't have to pay until you passed — at which point you would be issued a fancy certificate saying you are a 'Certified Kickboxing Instructor' or 'Certified Personal Trainer'. The website even bragged 'No teaching experience necessary!'

Here's a list of some of the most reputable certifying organisations:

- ✓ Australian Institute of Fitness
- ✓ Fitness Institute Australia (FIA)
- ✓ New Zealand Institute of Sport
- ✓ TAFE (Technical and Further Education)
- ✓ Universities

## Personal trainers versus exercise physiologists

Anyone can become a certified personal trainer with as little as nine weeks' full-time study, even at a reputable institution. Those weeks would involve some pretty intensive studying and some additional hands-on practice, no doubt, and leave people with enough knowledge to help a novice get fit. But if you were a client with a dodgy knee or a lower back problem that just won't quit, a personal trainer who's only completed that course might not have the depth of knowledge or experience to set you right.

If you do have a specific health issue that needs fixing, you might be better off speaking to your doctor, who can refer you to a physiotherapist, or an *exercise physiologist* — a personal trainer with a university degree. Just like a physiotherapist, an exercise physiologist (also known as an 'EP') spends a good four years studying the human body, so he'll be well-informed about which muscle connects

to what. Better still, EPs generally charge the same sorts of fees as personal trainers (although you may have to pay a higher fee of up to \$120 for your first consultation). You may be entitled to receive some compensation from Medicare if you're referred by a GP. You can find an exercise physiologist in your area by logging on to [www.essa.org.au](http://www.essa.org.au).

If you're a Kiwi, you can find an exercise physiologist by heading to [www.sesnz.org.nz](http://www.sesnz.org.nz) and clicking 'Membership Directory'. However, EP is a relatively new accreditation in New Zealand, so they aren't currently recognised by the government as a formal accreditation. At the time of printing, the New Zealand Government was reviewing this, but until the change occurs, you may wish to seek out a physiotherapist instead. If you're referred to a registered physiotherapist by your GP, your treatment may be funded by the Accident Compensation Corporation (ACC).





### *Hire an experienced trainer*

Don't be shy: Ask for references and call a few of the trainer's other clients. Do as good a job screening potential trainers as you'd do checking out potential employees. You could even ask for a résumé.

### *Make sure your personalities mesh*

Trainers are human beings, which means that they come in all different personality types. Some are enthusiastic. Some are downright perky. On the other end of the spectrum are trainers who missed their calling as maximum security prison guards.

Make sure you think about what you want in a trainer before you go looking for one. Interview a few, and choose one who makes you feel comfortable. Your trainer doesn't need to be your best friend. In order to act as an objective professional, your trainer — like your doctor or lawyer — may need some distance from you.



### *Expect good teaching skills*

Even if your trainer has a PhD in physiology and is more genial than Eddie McGuire, there's no guarantee that a trainer can teach you to perform a Push-up correctly. The ability to get a point across is a skill in and of itself. Good trainers speak to you in your native tongue, not in jargon. If you don't understand something, a trainer should be able to find another way of explaining the point. Also, good trainers prepare you to venture out into the world alone. They make sure that you understand not only how to adjust the seat on the Leg Extension machine, but also why you are adjusting it that way.

On the other hand, beware of trainers who talk too much. Some trainers give so many pointers that you feel as if you're a surgical resident performing your first intubation. The human brain can absorb only so much information.

### *Count on personal attention*

Your trainer should shower you with questions about your goals and should thoroughly evaluate your health, strength, cardiovascular fitness and flexibility. Some trainers will give a 65-year-old woman the same basic program that they'd give to a professional Aussie Rules player. Look for evidence that you're getting a custom-designed routine. If you find that you're performing exercises that are either far too difficult or way too easy (and the trainer doesn't seem to notice or care), you've been given the trainer's same old song and dance.

Many trainers specialise in certain types of clients, such as seniors, children, pregnant women, multiple sclerosis patients or ultra-endurance athletes. If you have a specific goal in mind or have special circumstances, it's wise to seek out a trainer who has the training and experience to meet your needs.

### *A few words about fees*

Hollywood stars may pay \$200 per weight training session, but you don't need to. Fees vary widely depending on what part of the country you live in, but in many places, you can find a trainer for about \$45 an hour. Expect to pay \$60 to \$100 per hour if you live in big cities such as Sydney, Melbourne or Auckland. You usually can save money by purchasing five or ten sessions at once. You also can save by hiring a trainer who works at your gym, but don't forget that you're also paying the gym's monthly dues. Many trainers offer semi-private sessions for a reduced fee. If you go this route, try to hook up with a mate whose goals and abilities are similar to yours.



By the way, after you sign up with a trainer, do not complain about his or her fee. Joe Shepherd, a trainer in Sydney, has one client who lives in a million-dollar home, drives an \$80,000 BMW, and has a wardrobe larger than the cast of a Broadway musical. This client has obtained tremendous results, dropping two dress sizes, losing 7 kilograms, and developing firm, sculpted muscles. 'But,' says Joe, 'every time we meet, the woman says, "I can't believe how much I spend on you. I tell my friends how great you are, but they're not *about* to spend *that* kind of money. By the way, my husband was wondering why you won't give me a discount."



### *Insist on liability insurance*

Make sure that your trainer carries liability insurance. Of course, we hope you never find yourself in a position where insurance matters. But you do need to face the realities of the modern world. If you get hurt, you may be looking at thousands of dollars in medical bills, even if you have medical insurance. A trainer's liability coverage may foot the bill if you can prove your injury is a direct result of the trainer's negligence. Most insurers award coverage only to trainers who are certified, so liability insurance is often an indication that your trainer has some credentials.

## *How to act during a training session*



Take an active role in your training sessions, especially if you're going to have just a few of them. Follow these tips to get the most out of your training sessions:

- ✓ **Show up on time.** Trainers are professional people with busy schedules and bills to pay, so show them some courtesy. Honour your trainer's cancellation policy (and avoid chronic cancellations).

Most trainers require at least 24 hours' notice when you can't make it to your session. They may let you slide the first time, but they do have the right to charge you for missed sessions.

- ✓ **Have a good attitude.** Your trainer doesn't want to hear you whine about your boss or your latest speeding ticket. Working out is fun — we would swear to it under oath.
- ✓ **Speak up.** If you've hurt your back, let your trainer know at the beginning of your session. And don't forget, the more questions you ask, the more information you're likely to remember. When you perform the Lat Pulldown, don't feel stupid about asking why you pull the bar down to your chest rather than to your belly button. A good trainer will have coherent answers on the tip of his tongue and won't say, 'Because I'm the trainer — *that's* why.'
- ✓ **Listen to your trainer.** When your trainer advises you to perform 12 repetitions per set, don't say, 'My stockbroker says it's better to perform 40 repetitions.' Trust that your trainer has more experience than you do. Of course, you should always ask questions if you don't understand something, and if your trainer's advice sounds out of line, you needn't heed it. But then, if your trainer's advice sounds out of line, you should find yourself another trainer.

## *An Introduction to Strength Training Classes*

Some people thrive on one-on-one instruction. Others really respond to the atmosphere of a class, even if they can afford a private trainer. If you're uncomfortable with someone scrutinising your every move, as a personal trainer does, then a class is a good way for you to learn good weight training technique while still blending into the crowd. And if you're short on self-motivation, a class can keep you pumping those weights when you'd prefer to go home and change the oil in your car. Even if you're the type of person who enjoys working out alone, you can pick up new moves by taking an occasional class.



Group classes are a fun, enjoyable way to weight train, but because you're in a group (and often surrounded by novices), you may end up picking up a bad habit or incorrect technique. This increases your possibility of using the wrong muscles, or worse — giving yourself an injury. Consider some one-on-one time with an expert, even if it's only for one session. Or, if your instructor has time before or after a class, ask him to quickly run you through any exercises you're unclear about.

## Body sculpting

*Body sculpting*, sometimes called *body shaping*, is really just a classroom buzzword for weight training. We think that teachers started these terms because they figured *weight training* would scare away people who are afraid of lifting weights. Some people say, 'Oh, I hate weight training, but I love body sculpting', which is like saying that you hate sweet potatoes but love kumara.

Body sculpting classes use dumbbells and exercise bands, as opposed to weight machines. A class typically lasts about 45 to 90 minutes and works all the major muscle groups in the body. Most clubs also offer 15- to 30-minute body sculpting classes, such as 'Abs Only' or 'Lower Back Care', that focus on a particular area of your body. If you take a focused class, just make sure that you don't neglect the rest of your body.



Although we wholeheartedly endorse body sculpting classes, we do want to point out two flaws that commonly plague these classes: performing too many repetitions and failing to use enough weight. Just because you're in a classroom doesn't mean that the basic rules of weight training go out the window. You still need to lift enough weight for each exercise so that the muscle in question is fatigued by the 15th repetition.



Some body sculpting instructors have their students use 1 kilogram weights for every exercise and perform dozens of repetitions. These instructors tell you that this method results in long, lean muscles as opposed to big, bulky ones. The truth is, if you're using a weight so light that you can lift it 40 times, you won't get much in the way of results at all. Your muscles may be exhausted, but they won't have been challenged in a way that will build significant strength or muscle tone. If you're using dumbbells, you may need four or five different pairs to give each muscle the appropriate challenge. With bands, you may need to frequently adjust the tension.

## Body Pump

Like body sculpting, *Body Pump* is a weight training class, led by an instructor for anywhere between 45 and 90 minutes. However, unlike body sculpting, which generally involves a routine that the instructor makes up himself, *Body Pump* classes follow a pre-planned routine that your instructor is taught at a special *Body Pump* centre.

*Body Pump* is also set to a specific set of songs, with each song, or *track*, dedicated to working a different body part. These song mixes, called *tapes*, are released every three months so the routines are always being updated.



Body Pump uses barbells and an aerobics step (rather than dumbbells and exercise bands, as in body sculpting classes). The step can double as a bench during some tracks, such as your chest and triceps workouts.

## *What to expect from your instructor*

In general, the quality of instruction has drastically improved in recent years, because most clubs demand certification and because poorly attended classes get dropped from the club's schedule. If you don't like one instructor, try another one if your schedule permits it. Also, mention your concerns to the club's management. Look for the following when evaluating an instructor:

- ✓ **Certification:** In both Australia and New Zealand, teachers should be certified as exercise instructors. Instructor certifications are different from personal training certifications. Typically, the exams aren't as difficult in the areas of physiology and general fitness knowledge as they are for personal trainers, but focus more on the skills that instructors need for class situations.
- ✓ **Registration:** In Australia, instructors also need to be registered with the industry body, Fitness Australia. It's compulsory for all gym instructors to have this registration before they can lead a class. This isn't required by law in New Zealand, but most reputable gyms still require their instructors to be registered with the New Zealand Register of Exercise Professionals. Ask the staff if you're not sure.
- ✓ **Concern for newcomers:** A good instructor will ask whether anyone is new to the class and whether anyone has any injuries or special problems. If you fit the bill, you may want to arrive a few minutes early and explain your situation to the instructor. The teacher may give you a special place to stand so that he can keep an eye on you. At the very least, you should get a little extra attention.
- ✓ **Clear instructions:** A good instructor will teach you important terminology without overloading you with jargon. We know one instructor who says things like, 'Raise up on your phalanges', which in English means 'Stand up on your tiptoes'.



Don't be afraid to walk out of any class that doesn't feel right. Liz once bailed on a step 'n' sculpt class because the teacher had the class members flying all over the step with weights in their hands. The uncontrolled activity caused a near-collision between Liz and the student next to her. Don't worry about hurting the teacher's feelings. Your priority is keeping your body intact.



- ✔ **Motivation:** Instructors shouldn't act like they're on autopilot. One friend of ours regularly took a 6am body sculpting class. The instructor would stumble into the room with a cup of coffee. Without even taking off her coat, she'd sit in a corner, shouting directions to the class as she sipped her coffee and munched on her bagel. If your instructor is too lazy to participate with his or her own class, complain to the management.
- ✔ **Individual technique tips:** Instructors can't possibly give a personal training session to all 20 members of the class, but they should offer some evidence that they're paying attention. They need to let you know if you happen to hold your arms too wide during Chest Fly exercises or if you throw your body around when you do Bicep Curls.
- ✔ **A warm-up, cool-down, and stretch:** Every weight training class should have a warm-up that consists of at least 10 minutes of light aerobic exercise. The class should end with a 3 to 5 minute aerobic cool-down followed by a stretching segment lasting 5 to 10 minutes.
- ✔ **An intensity check:** During the class, the instructor should check to make sure that people aren't pushing themselves too hard (or taking it too easy to benefit from the workout). The *intensity check* can be something as casual as 'Hey, how's everyone doing so far?' For details on how and why to check your pulse, see Chapter 20.

## All About Weight Training DVDs

No DVD instructor can pop out of the TV set and tell you to stop arching your back or to lift your dumbbells higher. Clearly, a DVD isn't a substitute for a real-life trainer. However, it can still teach you a lot about weight training that a book or magazine can't. You can witness an exercise being performed from start to finish, and you can learn new routines. Some DVDs even feature fancy graphics that indicate which muscles you're working during each exercise.



But perhaps the main reason that exercise DVDs are so popular is the convenience. 'I don't have to worry about waiting for the equipment or using it after people have sweated all over it,' says Kim Smith, who owns 32 weight training DVDs. 'And I can look as gruesome as I want to look. When I'm working my legs, I wear a thong leotard with my butt hanging out. And I can grunt and curse all I want.'

With a weight training DVD, you also have the convenience of matching the difficulty of your workout to how you feel that day, whereas in a live class, you pretty much have to exercise at the instructor's pace. (You can modify moves, but you can't turn an advanced class into a beginner's session, or vice versa.) 'Sometimes I'm in the mood for some real heart pounding,' Kim says. 'Other times I want to do a lightweight, nancy girl workout.'

Kim changes her weight training routines on a monthly basis. When we last spoke to her, she was doing a *split routine*: a chest, shoulders and triceps tape on Tuesdays; a thighs, hips and butt tape on Wednesdays; and a back and biceps tape on Thursdays. On Sundays, she goes to a gym and works all her muscle groups. Some people might get bored listening to the DVD instructor utter the same exact words day after day. Not Kim. 'I talk along with the instructors — I have their whole spiel memorised. I feel like I know them, like they're my best friends.'

## Different types of weight training DVDs

You can find weight training DVDs that use dumbbells, barbells, rubber exercise bands, rubber balls, machines — or a combination of these gadgets. Also, many DVDs use the training techniques we discuss in Chapters 16 and 17, such as pyramids and super sets. Some DVDs combine strength training with aerobics or step aerobics routines. Many are suited to beginners; others you can grow into. And if you find some instructors who you really respond to, chances are they'll continue coming out with new DVDs to keep you hooked.

## Where to buy DVDs



Actually, we suggest renting a DVD before you buy it. After all, if you buy a DVD and the instructor annoys you, or the workout is too easy or too confusing, the only way you'll use that DVD is as a coaster at your State of Origin parties. (Most stores don't let you return a DVD simply because you didn't like it.) Large video stores such as Blockbuster carry a fairly wide array of workout DVDs. Try several different instructors until you find a few that you like and *then* invest in DVDs of your own.

Perhaps the best way to buy weight training (and other) DVDs is through a catalogue called *The Complete Guide to Exercise Videos* ([www.collagevideo.com](http://www.collagevideo.com)). The *Guide* includes some 300 DVDs, many of them on weight training. The catalogue offers DVDs by all the major instructors plus many excellent ones led by fitness experts who aren't household names.

## Approved instructors

Fitness DVD devotee Kim Smith has formed strong opinions about which instructors she likes and which she doesn't. 'I don't want a cheerleader,' she says. 'I want someone who's going to put me through the paces. Some of these instructors are so phony. They say, "Are ya smiling? Are ya havin' fun?" If I could, I would reach through the TV set and choke them.'

We can't guarantee that you'll respond to the personalities of the following instructors, but we can say that you'll get a safe, solid workout with their DVDs. For consumer reviews of more than 100 DVD instructors, go to [www.videofitness.com](http://www.videofitness.com).

- ✔ **Kari Anderson:** She's one of the few instructors to use words like alignment and posture and then explain what they mean. One of Kari's other strong suits is that she often offers easier and more difficult variations on basic exercises.
- ✔ **Cory Everson:** Cory is a six-time Ms. Olympia body-building champion. She has a meat-and-potatoes approach to weight training — no fancy moves or silly jokes.
- ✔ **Gin Miller:** Gin usually demonstrates excellent form, and she doesn't treat exercise like it's brain surgery. More than
- many other instructors, she has the ability to make exercise seem fun.
- ✔ **Donna Richardson:** Donna is quite creative. She always comes up with that certain little twist on old, standby exercises. Her DVDs are for experienced lifters.
- ✔ **Keli Roberts:** An advanced, energetic instructor, Keli's moves are unique and stylish, although probably too complex for real beginners. Plus, she's Australian.
- ✔ **Richard Simmons:** Richard is one of the few fitness stars to embrace the needs of exercisers who are very overweight or very out of shape. He instructs with compassion and humour.
- ✔ **Kathy Smith:** Kath's DVDs are ideal for beginners and intermediates. The routines are straightforward — nothing fancy. Many of her routines are designed by experts in the field, and Kathy is an expert at passing along their information.
- ✔ **Karen Voight:** Karen is one of the best instructors in the business, although she never, ever smiles. Her directions are always clear, concise and correct. Her workouts can challenge even the fittest exercisers, so beginners should start out with another instructor.

The catalogue and website give you the complete lowdown on each DVD — how long each workout lasts, what types of exercises it includes, what type of music is played, how tough the workout is, and how the DVD has been rated by major fitness magazines. The site also helps you sift through the offerings to find DVDs that meet your goals.



If you want personal attention, you can email the catalogue's *video consultants*, who will help you select a DVD that's right for you. The consultants try out new DVDs every week, and they know what they're talking about. If you ask, they're willing to offer their unadulterated opinions on various instructors' methods. One advantage of ordering through this



catalogue is that if you're unhappy with the workout for any reason — including a personality conflict with the instructor — you can return the DVD without a hassle.

You can also buy DVDs from Amazon.com ([www.amazon.com](http://www.amazon.com)), which posts customer reviews; Fitness DVDs ([www.fitnessdvds.com.au](http://www.fitnessdvds.com.au)), which also posts customer reviews plus descriptions of each DVD; and Fitness Wholesale ([www.fwonline.com](http://www.fwonline.com)), which offers descriptions of the DVDs but not reviews.

Video Fitness ([videofitness.com](http://videofitness.com)) is also a great place to go for reviews; more than 700 DVDs are reviewed by DVD exercisers nationwide. The site's 'Getting Started' section even helps you set appropriate goals and select the right DVDs for you.

## *Downloading clips from the internet*

As you'd expect, there are thousands of weight training clips available on the internet. Some you can download for free, for others you need to pay to get access, and many are available by streaming direct from sites like YouTube. There's nothing wrong with using internet streamed workouts, as long as you're getting reliable information — the internet can be a fast, convenient and much cheaper way of feeling inspired than forking out for DVDs and their postage, and then waiting until they arrive in your letterbox. If you're considering using internet clips, keep in mind that:

- ✔ **You get what you pay for.** If the price seems too good to be true, it probably is. We've heard stories of bargain-price 'workouts' that turned out to be just two minutes long!
- ✔ **Dodgy-looking websites are usually just that — dodgy.** Hand over your credit card details to a shifty-looking site, and you might end up with a poor-quality movie, poor workout instructions, or no movie at all — just a thousand-dollar charge on your bill, from somewhere in Nigeria. Use your common sense; if a website doesn't look professional, it probably isn't.
- ✔ **Lots of clips is a good sign.** If a site is selling or offering lots of clips, it usually means that they're an established provider who knows what they're doing. Similarly, if you're on a website like YouTube, which is filled with user-generated content, then look for users who have uploaded lots of workout clips. It's also a good idea to look at the amount of times a clip has been viewed — the more popular a clip is, the more useful it's likely that people have found it. Unless, of course, it's a clip that shows someone dropping 100 kilograms on their toe. In that instance, it's probably popular for a different reason all together!



## Chapter 6

# Weight Training Etiquette

### *In This Chapter*

- ▶ Playing nicely at the gym
- ▶ Taking your weights off the bar
- ▶ Putting things back where they came from
- ▶ Wiping down the machines
- ▶ Keeping the traffic moving
- ▶ Minding your manners in the gym bathroom

Suzanne was performing squats at a crowded gym not long ago when suddenly she was jolted off balance by an earsplitting thud. Moments later, the room was rocked by another deafening clunk. Simultaneously, dozens of heads turned toward the source of this unnerving noise: a large man hoisting a 230 kilogram barbell. Apparently, this guy did not have the strength to be lifting that much weight. Midway through each repetition — when he had the bar about 60 centimetres off the ground — he'd lose control and the 230 kilograms would come crashing to earth, nearly sending the rest of the club's members into cardiac arrest.

This is what you call rude — and potentially dangerous — behaviour. While weight training doesn't require the same level of concentration as, say, reading Proust, it does happen to be an activity that's difficult to perform with bomb explosion-type noises going on in the background. Finally, Suzanne politely asked the guy to lose the sound effects so that the rest of us could work out in peace. Judging from the snarl on his face, he didn't appreciate the constructive criticism. But he *did* cut out the clanging.

Even at a gym — a place where tank tops, profuse sweating and mild grunting are perfectly acceptable — there are rules of etiquette. Sure, the social graces expected in a weight room are a bit different from those expected at the symphony or the Louvre, but manners are important just the same. In this chapter, we explain the rituals and customs that are unique to gyms. Some of these may seem odd at first, but once you learn how you're expected to act, you'll feel a lot more at home in your club — actually, in any club. By the way, if you witness a flagrant etiquette

violation, don't be afraid to inform the club staff. You're not being a snitch. The rules are for everyone, whether you're the Queen of England or one of her loyal subjects.

## Share the Equipment

In a gym, weight equipment is considered communal property, so don't sit on a machine while you rest between sets. Especially don't sit there reading a magazine, talking on your mobile or rehearsing an opera. (We've witnessed all three.) Instead, stand up and let a fellow gym member *work in* with you — in other words, let the member alternate sets with you. The same rule applies if you're using a pair of dumbbells. When you complete a set, place the weights on the floor so that someone else can sneak in a set while you rest. (If you place the weights back on the rack, you're likely to lose possession of them altogether.)



If someone else is using a machine or free weights that you have your eye on, feel free to say, 'Mind if I work in with you?' Anyone who says no is astonishingly rude. Suzanne recently encountered such a person at her gym. The woman finished a set of shoulder exercises with 4 kilogram dumbbells, placed the weights on the floor, and then picked up a pair of 5 kilogram weights to do a different exercise. When Suzanne asked permission to use the 4s, the woman shrieked, 'Oh! No! I'm still using those!' Suzanne pointed out that the woman was in fact *not* still using the 4 kilogram dumbbells, because she was holding in her very hands a pair of 5 kilogram dumbbells. The woman fought bitterly to retain custody of the 4s, so Suzanne took the high road and walked away.



Liz once had to physically pick up a woman and carry her off a bench to make her share it with other members. Although the woman was upset, the incident made both her and Liz legendary in the gym. Fortunately, they later became friendly. The only time it's appropriate to retain possession of weight equipment while you rest is when you're using a barbell stacked with weight plates. Suppose that you're bench-pressing 35 kilograms — that's the 20 kilogram bar with a 5 kilogram and a 2.5 kilogram weight plate on each side. Someone else, meanwhile, wants to bench-press 100 kilograms — the bar plus two 20 kilogram plates on each side. You can see what a hassle it would be for the two of you to work in with each other; between each set, you'd have to slide eight plates on and off the bar. So you're under no obligation to let the other person work in with you. (However, if people are waiting for the equipment, have the courtesy not to perform 15 sets.)



If you see someone hovering around the machine you've been using for the last 15 minutes, say, 'Would you like to work in with me?' Some people are shy and may not feel comfortable asking to work in with you. By the way, if you're working in with a person or group of people don't forget to wipe the equipment down before you trade places.

## Unload Your Weight Bar

After you finish using a bar, leave it completely empty. Don't assume that everyone can lift the same amount of weight you can. Removing weight plates from a bar takes a fair amount of strength as well as good technique. Don't assume that the next person who comes along has the ability (or desire) to clean up after you. Suzanne recently encountered a man who left 20.5 kilogram weight plates on either side of the bench press bar and started to walk away. When she asked if he would clear the bar, he sneered, 'I already did.' Suzanne then pointed out that in the English language, the word 'clear' means to 'empty completely' — and that leaving 41 kilograms of weight on a bar did not meet that particular definition. The man seemed irked that anyone could be so weak as to bench-press less than 61.5 kilograms (41 plus the 20.5 kilogram bar). Suzanne made it clear that it was the man's *attitude* that was irksome.

By the way, this clear-the-bar rule doesn't just apply to heavy lifters. Even if you're using only a 5 kilogram plate, you still need to clear your bar. If the next person who comes along wants to use 20 kilograms, she won't want to be bothered with removing your 5 kilogram weights. And don't leave it to the club's trainers to clear your bar.



If you see a fellow weight trainer walk away from a loaded bar, politely ask her to remove the plates. This person may not become your best friend, but the other gym members and the staff will thank you.

## Return Your Weights to the Right Place

When you have removed a weight plate from a bar or when you are finished using a pair of dumbbells, return the weights to their designated spot on the rack. No one should have to waste 10 minutes hunting for the 7.5 kilogram weights, only to find them sitting between the 20s and the 25s. Typically, clubs have dumbbells sitting in order. And on a weight plate tree, the light plates usually sit on the top rungs while the heavier ones go on the bottom. It's frustrating when people pile the plates indiscriminately on top of one another. Invariably, you have to slide off three 25 kilogram plates and two 15 kilogram weights just to get to the 5 kilogram plate.



Never leave dumbbells or barbells on the floor when you're finished using them. Someone may trip on the weights. If you leave dumbbells on the floor between sets, criss-cross them or butt them up against the wall or the bench so that they can't roll away.



If someone else has misplaced weights, do the club a favour and put them back in the right place — if you can safely lift them, of course. No sense in giving yourself a hernia just because someone else had bad manners.

## *Keep Your Sweat to Yourself*

Carry a towel and wipe off any bench or machine you use. Nothing is quite as icky as picking up a slippery weight or lying down in a stranger's pool of sweat. If you forget to bring a towel, use your sweatshirt or the paper towels provided by the club.



Wipe up the pool of perspiration you may have left on the floor surrounding your machine or bench. Otherwise, the next person may inadvertently do a third-base slide into the machinery.

## *Don't Block the Flow of Traffic*

As we mentioned earlier, you shouldn't camp out on the equipment while you're resting between sets. However, neither should you clog the pathways between machines — or congregate with a dozen of your mates in the free weight area. Many members are too timid or polite to point out that the weight room should in no way resemble the floor of the commodities market, so they end up taking a detour halfway around the gym to get to a dumbbell rack that's two metres away. Some people are so oblivious to the traffic jam they have caused that breaking up their party is a feat akin to parting the Red Sea.



Liz was recently working out at a gym and wanted to use a machine that was blocked by a gaggle of women sharing the latest gossip about a cute trainer. Several times she asked them to move but eventually had to gently shove her way through the group.



This rule applies outside the weight room, too. If you're going to flirt with the receptionist at the front desk, make sure you're not blocking the sign-in sheet.



## Don't Hog the Drinking Fountain

Don't stand at the drinking fountain trying to catch your breath when the line behind you is longer than the line for grand final football tickets. Take a drink, then get back in line. Better yet, carry a water bottle in the weight room. For some reason, many people who use a water bottle on the stationary bikes and stairclimbers don't think of carrying one around the strength training area. When you do fill up your bottle, let everyone else in line get a drink first; do not hold up the entire gym membership while you fill a five litre water jug. And — this should be obvious, but club staffers report otherwise — don't spit your gum into the fountain. Actually, don't spit *anything* into the fountain. No one wants to stick their face into a big gob of phlegm.



If you see a wad of gum in the fountain, grab a paper towel and remove it. Okay, maybe that's a lot to ask, but this *is* the extra credit section. At least ask a staff member to remove the gum.

## Keep the Grunting to a Minimum

A weight room isn't a public library, but it's not a championship wrestling arena either, so keep the hooting and hollering to a minimum. If you're lifting some heavy weights, you may feel the need to make some sort of audible noises. Just don't bellow like Godzilla. People who roar when lifting weights sound foolish and distract the people around them.



If someone's grunting is assailing your ear drums, kindly ask her to lower the volume. Chances are, any noise that bothers you is distracting other club members, too. If you don't feel comfortable approaching the offending lifter, let a staff member know about the problem.

## Don't Tote Around Your Gym Bag

Some people carry their bag from machine to machine, as if they're walking around an airport terminal and don't want to leave their luggage unattended. You know those large hollowed-out cubes called lockers? That's where you store your gym bag. At most gyms, the machines are only a few feet apart; by dumping your bag on the ground you're hogging precious floor space. Many gyms forbid members to bring their bags into the weight room because a) they become a tripping hazard, and b) less honest members may

walk out with lovely parting gifts, like dumbbells, cable handles and other small items. Someone recently stole all of the collars from a gym that Liz manages, creating a real safety issue until the collars were replaced. (We define collars in Chapter 1.)



Bring as few items as possible onto the gym floor. We see people walking from machine to machine carrying their coat, their headphones, their weight belt, their gloves, their newspaper and their lunch. Transporting all this stuff slows down your workout and creates clutter that other members have to step over and around.

## *Don't Be Afraid to Ask for Advice*

If you can't remember how to adjust a machine or perform an exercise, don't be afraid to ask for help. People who lift weights love to give advice; in fact, sometimes you can't shut 'em up. Remember that these people were once beginners, too. You may feel more comfortable asking a staff member for help, and you may get better advice. However, at some clubs, the staff trainers don't have any special education and may be of no more assistance than experienced club members.

Although you shouldn't be shy about asking questions, you also don't want to make a pest out of yourself. So use common sense. If someone is in the midst of raising 75 kilograms overhead, don't tap him on the shoulder and ask how to adjust the inner thigh machine. And if a member has headphones on loud enough for you to discern which song she's listening to, chances are this person doesn't want to be bothered.



When asking for help, include some flattery in your request. Say something like, 'You really look like you know what you're doing. Would you mind showing me how to use this machine? I'd really appreciate it.'

## *Be Careful When You Offer Unsolicited Advice*



Regina Goodwin was performing a back exercise after undergoing breast reconstruction surgery. Because one of her major back muscles had been removed during the operation, she was not able to perform this particular exercise in the traditional way. After witnessing Regina's unusual technique, a bodybuilder sauntered over and said, 'Honey, let a *man* show you how it's



done.’ Unfortunately, this man wasn’t watching where he was standing, and Regina inadvertently whacked him between the legs with her dumbbell. ‘He screamed, and I dropped the weight on his foot,’ she recalls. ‘He has not been seen in the gym since.’

Don’t misunderstand: We’re not saying that you can never offer unsolicited help in the gym, just don’t offer it unless you know what you’re talking about.



Sometimes the knowledge you’ve gained can be a great help to a lost soul. For instance, you may see someone holding a workout card, glancing from the machine to the card and back to the machine. If the person looks particularly confused or hesitant, you may want to say, ‘Hi. I’m new here, too, and I had a tough time figuring that one out myself. Need any help?’ The person might be grateful that you stepped in.

## *Don’t Dress Like a Porn Star*

We’re not what you could ever call nuns. Nor are we easily shocked or offended. Still, we often wonder at the skimpy attire worn by members at the gyms we frequent. A few women at Suzanne’s gym spend more time putting their body parts back into their workout wear than they spend actually lifting weights. Liz even had to evict a drunk woman who came to the gym wearing her lingerie. The only body part that was actually covered was the woman’s head; for some reason, she was wearing a baseball cap.

Men sometimes pump iron while wearing offensive clothing as well. Our friend Amy worked out at a gym where immense bodybuilder types wore pink and turquoise striped shorts that extended only about a centimeter below their private parts. ‘The stripes got stretched in all sorts of shapes, depending on their curves,’ Amy observed. Nor are we fond of bodybuilders who cut out the middle and sides of their tank tops so that the tops are essentially held together by a strand of spaghetti.

## *Treat the Locker Room Like Your Own Bathroom*

Even more so than the weight room, the locker room is the place where your true colours emerge. Women are on equal standing with men in this arena: Men may be more likely to hog dumbbells in the weight room, but women can clog the shower drain with the best of ’em.



✔ **The shower:** Don't take a marathon shower if people are waiting. With the exception of sweat, what you take into the shower should come out with you when you leave; this goes for biological as well as non-biological matter. Nobody needs to become personally acquainted with clumps of your hair, your empty shampoo bottle, your used razor, or your slimy sliver of soap. At some gyms people deliberately shove personal items — such as tissues, tampons and even socks — down the drain. The drain is not a garbage disposal!

✔ **The vanity area:** Don't hog the mirror or the blow-dryer. If you brush your hair and 200 strands of hair fall on the counter, wipe them off with a paper towel (wipe them into the towel, not onto the floor). Don't leave globs of shaving cream or make-up all over the vanities. Liz was getting dressed for a meeting and got a nice blob of mascara on the elbow of her dress. And don't drink the Listerine straight from the bottle. (We've witnessed this personally.)

✔ **The locker area:** Don't take up three lockers and spread your clothing over the entire bench, forcing other people to put on their socks while standing up. Shut your locker when you leave so that the locker room doesn't look like it's been ransacked by a bunch of hoodlums.



Limit yourself to one or two towels. We know one guy who regularly uses six: one under each foot, one around his waist, one over each shoulder, and one for his hair. Now, would he do that if he had to do the laundry? And how would he feel if he had to dry himself off with a paper towel because some inconsiderate jerk hogged all the towels? After you're done using your towels and other paraphernalia, place them in the laundry or rubbish bin instead of dropping them on the floor. No one wants to sit on a bench strewn with soggy towels, pantyhose packages and gnarled bobby pins. The staff are never particularly thrilled to clean up those items, either.

Don't leave your belongings in lockers overnight unless you have permission from your gym to do so. Most gyms will empty out unsanctioned lockers at the end of every day and won't guarantee the safe return of your personal items.

If the lockers at your gym require a key, return it at the end of your workout. Keyed lockers are a convenience to members so that they don't have to carry a lock of their own. However, members often walk away with the keys, rendering the lockers unusable and creating a big expense for the facility, which has to keep replacing the keys.



Let the staff know if the locker room is running low on towels, toilet paper, or some other item that the gym provides. Don't use an accusatory manner. A simple 'Hey, did you know you're out of shampoo?' will suffice.

## Courtesy in class

Remember that 'Gets Along Well with Others' category on your school report card? Well, no one is going to grade your behaviour in a weight training class, but the principle still applies: You must be courteous to your fellow students. Here's how to win friends and the teacher's approval in a body sculpting class. Some of these rules also apply to step aerobics and other types of classes.

- ✔ **Follow the teacher:** You're not just renting the weights for an hour; you're there to participate with the group. When the class is trying to listen to the instructor's explanation of the Shoulder Press, you shouldn't be off in your own world doing a set of Bicep Curls. This can be distracting to both the class members and the instructor.
- ✔ **Choose the appropriate class level:** If you're a flat-out beginner, don't venture into the Monster Muscles advanced body-sculpting class. It's not fair to the teacher, who is supposed to be challenging the other students, to have to stop to explain the basics to you. (Also, it's not fair or

safe for you.) On the flip side, if you're an advanced student slipping into a beginner body sculpting class, know that you won't be as challenged. Don't bother complaining to the instructor that the class is too easy for you.

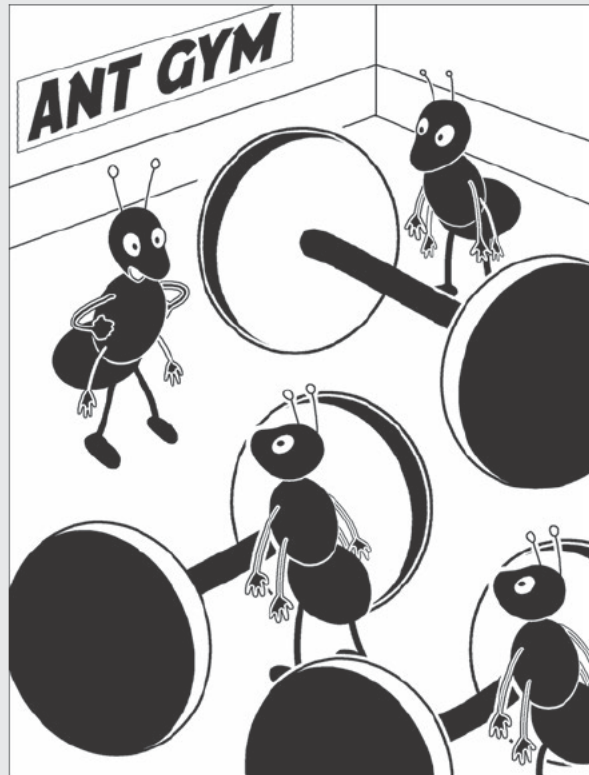
- ✔ **Don't disorganise the weights or benches:** We sometimes see class members arrive early, pick through the weights to find the ones they want, and reserve their favourite spot in the class. This wouldn't be a problem if they didn't throw their reject equipment all over the floor.
- ✔ **Respect other students' personal space:** Place your equipment far enough from your neighbours that you don't smack into them during the exercises. If the class is too crowded, the teacher is obligated to turn people away or modify the routine so that nobody ends up black and blue.
- ✔ **Don't show up late:** Most teachers don't let students in after the warm-up period. You shouldn't miss this segment, anyway.



# Part III

# The Exercises

*Glenn Lumsden*



*'It's important to start gradually, so we'll begin by lifting only 20 times our body weight.'*

## *In this part . . .*

**P**art III is the meat of the book. It's where we tell you how exactly to tone those triceps or trim that butt. First we introduce the format for the exercise instructions and get you familiar with the muscles you'll be working. Each of the next seven chapters focuses on a body area — including your core, which is new in this second edition. The last chapter in Part III shows you advanced exercises for all of your muscle groups.

For each of your major muscle groups, we offer a brief physiology lesson and a rundown of important slang so that you can go around saying things like 'I had a killer *lat* and *delt* workout'. Then we describe exercises that use both free weights and machines. Throughout this part of the book, we nag you with instructions like 'Don't arch your back', 'Tighten your abdominals' and 'Don't eat too much bread or you'll spoil your dinner'. Just kidding on that last one.

## Chapter 7

# How to Read the Exercise Instructions

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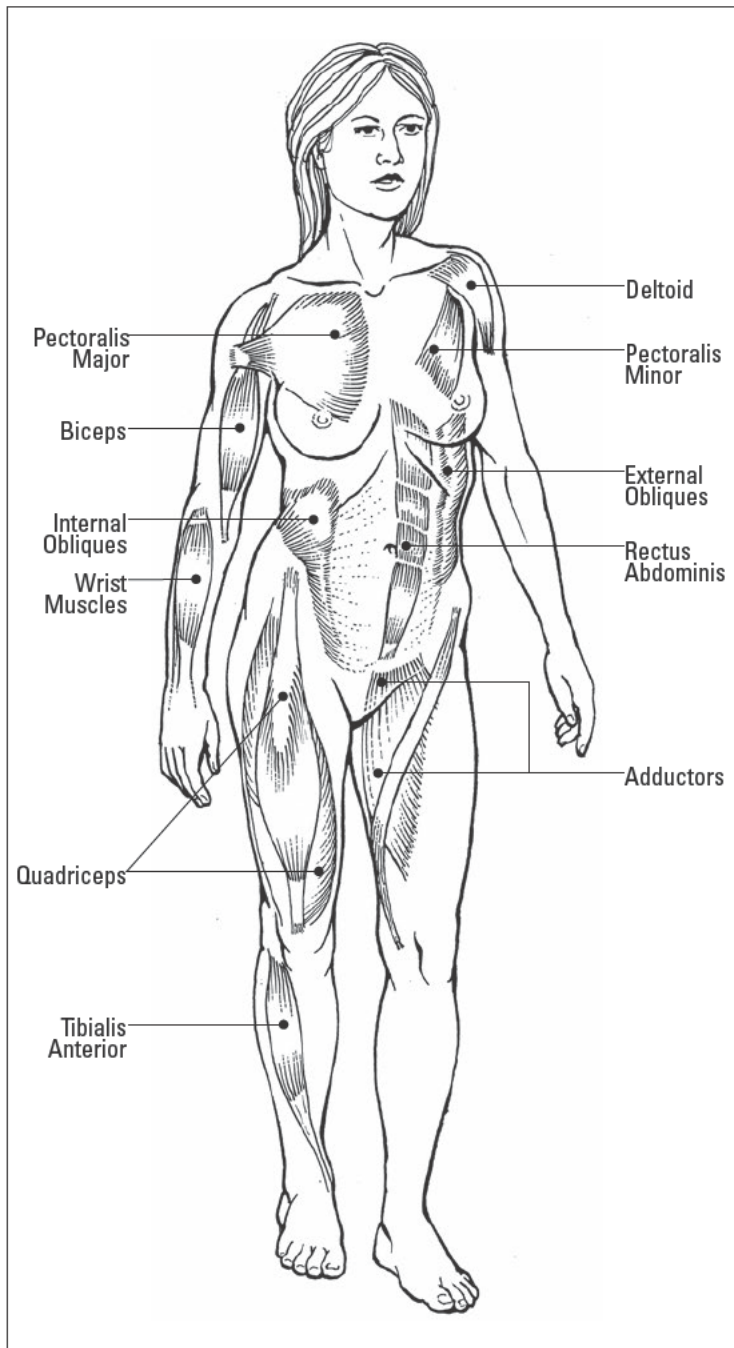
### *In This Chapter*

- ▶ Explaining how we present the exercises
  - ▶ Using our pet phrases
  - ▶ Breathing properly while you train
- 

**D**on't be alarmed by the fact that we have devoted an entire chapter to reading the exercise instructions. This doesn't mean that the instructions are complicated. You won't feel like you're slogging through a tax preparation guide or one of those do-it-yourself shelving manuals. We simply want to introduce you to some basic terms used frequently in this part of the book. We also help you choose the exercises that are most appropriate for you, given your fitness level and the equipment available to you.

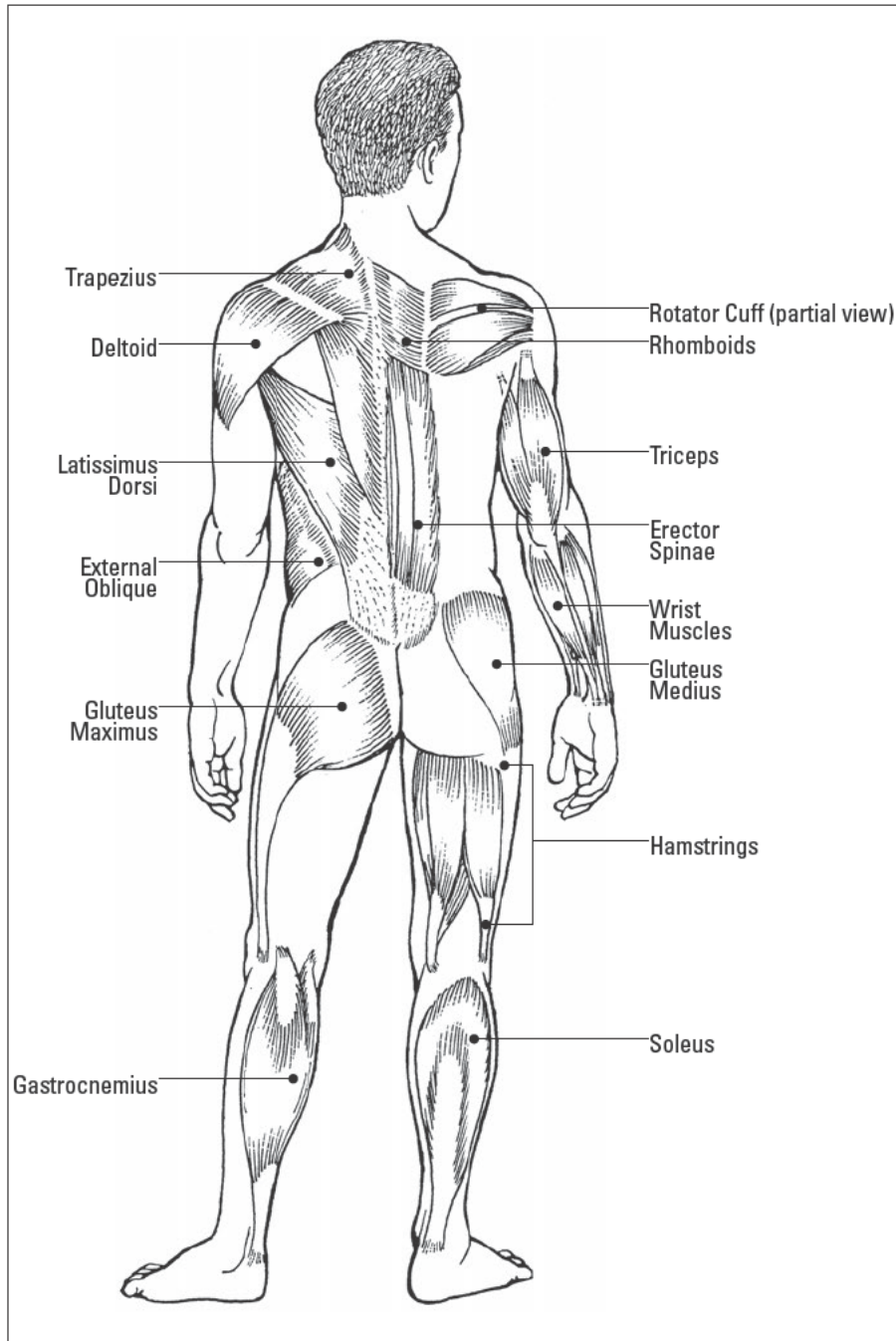
### *Introducing You to the Exercises*

For every muscle group presented in this book (such as back, chest or shoulders), we first show you exercises that don't require machines — that is, moves involving dumbbells, barbells or no equipment at all. Then we present the exercises that do require weight machines. We include at least one machine per muscle group (except the abdominals and core, for reasons we explain in Chapters 12 and 13). Figures 7-1 and 7-2 show you the major muscle groups in your body.



**Figure 7-1:**  
A front view  
of your  
muscles.





**Figure 7-2:**  
Your  
muscles  
from the  
back.

If we tried to show you every exercise in existence, this book would be thicker than the unabridged edition of the *Oxford English Dictionary*. So, we've chosen to present the most common, basic exercises — classic moves that are safe and appropriate for beginners but also are standard moves for veteran exercisers. Chapter 15, which looks at advanced weight training exercises, features moves that you may want to incorporate into your routine once you have mastered the basics.



If you have knee, hip, back or other orthopaedic problems, look for the Joint Caution icon; this icon alerts you to exercises that you may want to avoid or modify. We give you instructions on how to adjust many of the exercises to work around your joint problems.

After presenting each exercise, we describe a number of other versions, labelled 'Other Options'. Some of the options are easier than the basic version, requiring less coordination or strength. Others are tougher. Some options are neither easier nor harder than the basic version; they simply work the muscle from a different angle.

Once you feel comfortable with the basic version, expand your horizons by experimenting with the options. You may discover, for example, that you prefer to do the Dumbbell Shrug (Chapter 8) with a barbell instead. Or maybe you enjoy both versions and want to alternate them in your workouts. However, don't go mad and try all options of an exercise in a single workout. Experiment with one or two new options each time you work out, and concentrate on mastering the movement.

## *Our Favourite Phrases*

Everyone has pet phrases. Parents like to say 'Eat your vegetables!' and 'Don't forget to take a jacket!' (even if their children are 45 years old). Dentists like to say 'Don't forget to floss!' and 'Brush in all the corners!' Fitness experts have their favourite sayings, too, such as 'Switch your core on!' We use these phrases not to annoy you (we'll leave that job to parents and dentists), but to keep your joints and muscles from getting injured and to make the exercises more effective. Here's a rundown of the phrases we use repeatedly in Chapters 8 through to 15. Chances are, you'll hear these same phrases in exercise DVDs and classes and when you work out with a fitness trainer.

## 'Switch your core on'

Place your hands on the top of your hips, then move each hand in two centimetres towards your belly button, and down one centimetre. Poke yourself here — that's where your core, also known as your *transverse abdominus*, is. To switch your core on, flex the muscles that you're poking. This will cause your belly button to be pulled down towards your spine, creating a kind of girdle that will help protect your back when you're exercising.

Don't try to create a vacuum or suck your stomach into your ribs. Just hold your abs slightly in toward your spine. 'Switching your core on', which we also refer to as 'pulling your abdominals in' over the following pages, helps hold your torso still when you exercise and keeps your back from arching or rounding, mistakes that can lead to back injury. Chapter 13 is all about working and stabilising your core.

## 'Stand up tall with square shoulders and a lifted chest'

In other words, keep your head centred between your shoulders and don't round your shoulders forwards. Your chest should be comfortably lifted, not forced; you needn't stand like a soldier at attention.

## 'Don't lock your joints'

We use the phrase 'Don't lock your joints' in reference to your elbows and your knees. *Locking a joint* means straightening it so completely that it moves past the point where it normally sits at rest. For example, you don't normally stand with your *quadriceps* (front thigh muscles) as tight as can be with your kneecaps pulled up; that's a locked knee. Locking your knees is not only bad news for your knee joints, but it also can cause lower back pain. And it's a way of cheating when you perform exercises in a standing position, such as the Lateral Raise (Chapter 10) and the Barbell Bicep Curl (Chapter 11).



Locking your elbows places excessive pressure on your elbow joints, tendons and ligaments. Constant elbow locking can cause *tennis elbow* (an inflammation of the elbow tendons), even if you've never held a tennis racquet in your life. Locking your elbows also can cause bursitis by rupturing the little lubrication capsules (the bursa) located in your joints. Bursitis results in swelling, pain and tenderness at the elbow. Snapping your elbows also is a form of cheating because it temporarily takes the weight off the muscle that's supposed to be working.

## ***'Keep your shoulders and neck relaxed'***

If your shoulders are hunched up near your ears, you need to relax. We think that hunched shoulders are a vestige of holding the phone to your ear or sitting at your computer all day long. If you're prone to hunching, think about lengthening your shoulder blades, as if they are dropping down your back, and try to keep them there as you perform the exercise.

## ***'Tilt your chin towards your chest'***

Tilt your chin just enough to fit your closed fist between your chest and your chin. This position lines up the vertebrae of your neck with the rest of your vertebrae. (Because your neck is a continuation of your spine, it should stay in the same general line as the rest of your vertebrae.) So don't tilt your chin back or drop it towards your chest like you do when you sulk. These two movements strain your neck and place excess pressure on the top of your spine.

## ***'Don't shoot your knees past your toes'***

We use the phrase 'Don't shoot your knees past your toes' and similar phrases often when describing butt and leg exercises, such as the Squat and Lunge (Chapter 14). If your knees are several centimetres in front of your toes, you're placing your knees under a great deal of pressure. Also, you probably have too much weight distributed on your toes and not enough on your heels, which means the exercise won't strengthen your butt as effectively.

## ***'Don't bend your wrists'***

When you bend your wrists too far inwards or outwards (that is, when you don't keep your wrists in line with your forearms), you cut off the blood supply to the nerves in your wrists. If you do this frequently enough, you can give yourself a case of carpal tunnel syndrome. Sometimes we use the phrase 'Keep your wrist in line with your forearms'.

## ‘Maintain proper posture’

Proper posture is an all-encompassing phrase that includes everything that we’ve mentioned in this section. We use this phrase often because good posture is so important — and because our posture often goes down the tube when we focus on lifting and lowering a weight.



Good posture isn’t automatic for most of us, so give yourself frequent reminders. And if you exercise with correct posture, you’ll train your muscles to hold themselves that way in everyday life. Throughout these chapters, we use the Posture Patrol icon to remind you to maintain good posture.

## Breathing Lessons

The exercise descriptions in this book do not include breathing instructions because we feel that extra instructions would amount to information overload. Nevertheless, proper breathing technique is important, so here are the general rules:

- ✓ Exhale deeply through your mouth during the most difficult part of the exercise, also known as the *exertion phase*. During the Bench Press, for example, pressing the bar up is the exertion phase, so exhale as the bar travels upwards.

Exhaling protects your lower back by building up pressure that acts as a girdle to hold your spine in place. Exhaling also ensures that you don’t hold your breath so long that you pass out.

- ✓ Inhale deeply through your nose to bring in a fresh oxygen supply during the less difficult part of an exercise (such as when you lower the weight during a Bench Press). Inhaling provides the spark of energy for your next repetition.

Before we get irate letters from the hard-core weight lifting contingency, we should explain that these breathing directions are for *non-maximal* lifts. We’re not talking about world-class power lifting here. If you plan to compete in power lifting, you need to use a slightly different breathing technique than the one described above. Because we don’t think that many of you plan to enter such competition, we won’t bore you with the details.



## Chapter 8

# Working Your Back

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### *In This Chapter*

- ▶ Introducing your upper back and lower back muscles
  - ▶ Strategies for a great back workout
  - ▶ Avoiding mistakes when working your back
  - ▶ Performing upper back exercises
  - ▶ Doing lower back exercises
- 

**W**e think that back muscles have been forgotten. Nobody writes songs about them. No epic poems are written about them. They rarely take centre stage in lingerie ads. Despite their lowly status, however, back muscles are quite worthy of your attention.

We divided this chapter into two sections: upper back and lower back. Even though these muscle groups reside in close proximity to each other, they have very different job descriptions and require different workout routines. Many upper back exercises involve lifting a fair amount of weight; lower back exercises, on the other hand, require more subtle movements, usually without any free weights or machinery. We explain why you need to perform both types of exercises. We also tell you which popular back exercises have fallen out of favour with fitness experts and which moves get you the best results.

## *Upper Back Muscle Basics*

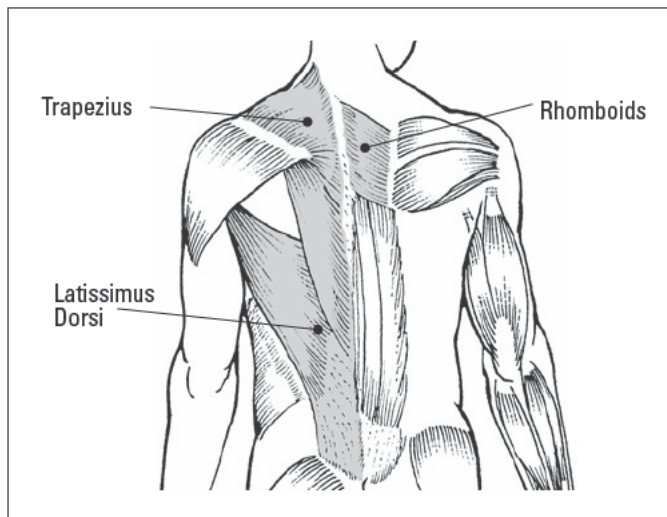
Pull up a chair and let's talk about your upper back muscles. There. You just used 'em. In fact, you use your upper back muscles whenever you pull anything towards you, whether it's a piece of furniture, a stubborn golden retriever on a leash or the mountain of chips you won at your Thursday night poker game.



The largest muscles in your back are the *latissimus dorsi*. They run from just behind each armpit to the centre of your lower back. You can call these muscles your *lats*. Don't call 'em your lattes, as one gym-goer recently did; people might think you're referring to an overpriced coffee drink. Don't call them your laterals, either.

The main purpose of your lats is to pull your arms towards your body. Above these muscles are your two *trapezius* muscles, or your *traps*. Together, your traps look like a large kite that runs from the top of your neck to the edge of your shoulders and narrows down through the centre of your back. Your traps enable you to shrug your shoulders, like when your partner asks how you could have forgotten to pay the phone bill.

Your *rhomboids* cover the area between your spine and shoulder blades. Along with your traps, you use your rhomboids for squeezing your shoulder blades together. You have to call them your rhomboids since *boids* somehow never caught on. Figure 8-1 highlights the muscles of your upper back.



**Figure 8-1:**  
The upper  
back muscle  
team.

## Why You Need a Strong Upper Back

Okay, so well-developed lats aren't going to get you a starring role in any television dramas. But building up your back muscles does have its advantages.

- ✓ **Real-life benefits:** With a strong upper back, you'll find it easier to drag your kids into the dentist's office or lug your suitcases through endless airport terminals.



- ✓ **Injury prevention:** Strong lats help keep your shoulders healthy. Since they're the largest muscle north of your waistline, your lats do a good job of handling most of the work in pulling movements so you don't over-stress your shoulders. For example, well-developed upper back muscles could save you from injury when unfolding the sofa for a houseguest.
- ✓ **The 'feel good' factor:** Upper back exercises can make your back more broad, which, in turn, makes your waist, hips and legs appear smaller. Don't worry: You won't get so wide that you'll get stuck in any doorways.

## *Keys to a Great Upper Back Workout*

Upper back exercises fall into three general categories: pulldowns and pull-ups, rows, and pullovers. Later in this chapter, we show you a variety of exercises in each category. For the most complete upper back workout, we suggest doing at least one exercise from each category, although you needn't do all of these exercises in the same workout.

- ✓ **Pulldowns and pull-ups:** With a pulldown, you grab a bar that's attached to an overhead pulley and pull it down; with a pull-up, you grasp a bar above you and pull yourself up. (See, this exercise stuff isn't so complicated!) We lump pulldowns and pull-ups into one category because they work your back in the same way. Both types of exercises involve your lats, traps and rhomboids, but they also rely pretty heavily on your biceps, shoulders and chest muscles. If you're looking to develop a broader back and improve your posture, emphasise pulldowns and pull-ups.
- ✓ **Rows:** This probably won't come as a shock, but rowing exercises mimic the motion of rowing a boat. You can perform rows with a barbell or dumbbell, a set of machine handles or a bar that's attached to a low cable pulley. Rowing exercises use the same muscles as pulldowns and pull-ups except that they don't involve your chest. Rows are particularly helpful if you want to learn to sit up straighter; to perform a row correctly, you have to sit up tall.
- ✓ **Pullovers:** When you do a pullover, your arms move up and down in an arc, like when you pull an axe overhead to chop wood. Pullovers rely mainly on your lats, but they also call upon your chest, shoulder and abdominal muscles. Like the other upper back exercises, pullovers help with posture; however, unlike other upper back exercises, they rely more heavily on perfect technique, which ups your risk of injury if you're just starting out. As a result, we haven't focused on pullovers in this book.



Whether you're performing pulldowns, pull-ups, rows or pullovers, remind yourself that these exercises are designed first and foremost to strengthen your back muscles, not your arms. Think of your arms merely as a link between the bar and your back muscles, which should do the bulk of the work. Concentrate on originating each exercise from the outer edges of your back. This bit of advice may be difficult to relate to at first, but as you get stronger and more sophisticated, you'll learn where exactly you should feel each exercise.

Most of the upper back exercises we show in this chapter involve weight machines or cable pulleys. If you work out at home and you don't have a multi-gym (a home version of gym machinery, described in Chapter 4), you can use a rubber exercise band to mimic the pulley machine. See Chapter 27 for a back exercise that you can do with a band.

## Mistakes to Avoid When Working Your Upper Back



The upper back is one area where we see a lot of attempted heroics. With pulldowns and rows especially, people tend to pile on more weight than they can handle and end up contorting their bodies wildly in order to complete the exercise. This sort of behaviour isn't going to get you anywhere. We know one trainer who tried to impress an entire gym full of people by doing a pulldown using the entire stack of weights on the machine. Rather than pulling down the bar, however, he was hoisted up out of his seat and left dangling in the air for a few seconds, like Liberace used to do on stage, only with a lot less flair.

The trainer was forced to let go of the bar when he tore a shoulder muscle. We suspect you won't get yourself into that kind of trouble. Nevertheless, here are some tips to avoid injury when you train your upper back:

- ✓ **Don't rock back and forth or wiggle around.** In an effort to pull the weight towards them, many people squirm around to build up momentum, but that's the last thing you want; instead, you should rely on your own muscle power. If you find yourself shifting around in order to lift and lower the weight, drop down a few plates.
- ✓ **Don't lean too far back.** You may be able to lift more weight when you lean way back, but that's because you have better leverage, not because your back muscles are getting a better workout. A more upright posture will ensure that your back muscles are in the prime position to do maximum work. Anytime you pull something towards you, squeeze your shoulder blades together and sit up tall. With





pulldowns, you can lean back ever so slightly, but for rows you need to be sitting as tall as you do when your flight attendant demands that you return your seat back to its full upright position with your seat belt fastened and tray table locked.

- ✓ **Don't pull a bar down behind your neck.** There are endless variations of the pulldown exercise, but one now frowned upon by many exercise experts is the behind-the-neck pulldown. Critics of this exercise say that your arms are twisted so far back that your upper arm bones get jammed into your shoulder sockets, which could overstretch your ligaments and strain those delicate rotator-cuff muscles we describe in Chapter 10. Perhaps the dangers of this exercise are a bit overstated, but why risk it? Unless you're a rock climber, an avid rower or a swimmer who favours the butterfly stroke, front pulldowns will suffice.

## Upper Back Exercises in This Chapter

Here's a preview of the upper back exercises shown in this chapter:

- ✓ One-arm Dumbbell Row
- ✓ Dumbbell Shrug
- ✓ Machine Row
- ✓ Lat Pulldown
- ✓ Cable Row
- ✓ Assisted Pull-up

### One-arm Dumbbell Row



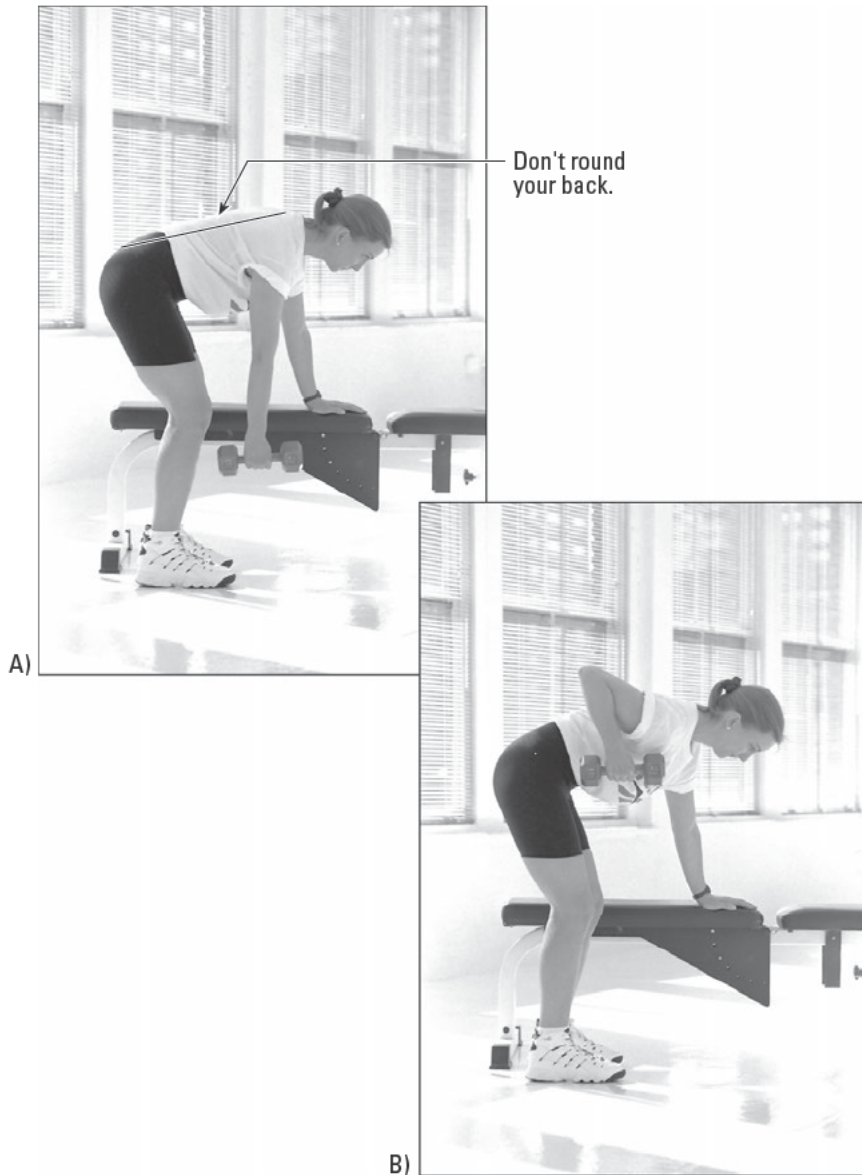
The One-arm Dumbbell Row targets your back, but also emphasises your biceps and shoulders. Be especially careful if you have **lower back** problems.

#### Getting set

Stand to the right of your weight bench and hold a dumbbell in your right hand with your palm facing in. Pull your abdominals in and bend forwards from your hips so that your back is naturally arched and roughly parallel with the floor and your knees are slightly bent. Place your left hand on top of the bench for support and let your right arm hang down. Tilt your chin towards your chest so that your neck is in line with the rest of your spine. See photo A in Figure 8-2.

***The exercise***

Pull your right arm up, keeping it in line with your shoulder and parallel to the ceiling. Lift until your hand brushes against your waist. Lower the weight slowly back down. See photo B in Figure 8-2.



**Figure 8-2:**  
Focus  
on using  
your back  
muscles  
rather than  
just lifting  
your arm.



### *Do's and don'ts*

- ✓ DO remember that, although your arm is moving, this is a back exercise. Concentrate on pulling from your back muscles (right behind and below your shoulder) rather than just moving your arm up and down.
- ✓ DO keep your abs pulled in tight throughout the motion.
- ✓ DON'T allow your back to sag towards the floor or hunch up.
- ✓ DON'T jerk the weight upwards.

### *Other options*

**Rotation Row:** As you lift the dumbbell, rotate your arm so that your palm ends up facing backwards. This gives the exercise a different feel and places extra emphasis on your biceps.

**Barbell Row:** Place a barbell on the floor and stand about half a metre away from it. With your knees bent, bend down and grasp the bar in an overhand grip with your hands a little wider than your shoulders. Pull your abs in tight and don't let your back arch. Keeping your hips bent so that your torso is at a 45-degree angle to the floor, pull the bar towards the lower part of your chest and then slowly lower it back down. You also can do this exercise with an underhand grip or with your hands a bit closer together.

## *Dumbbell Shrug*



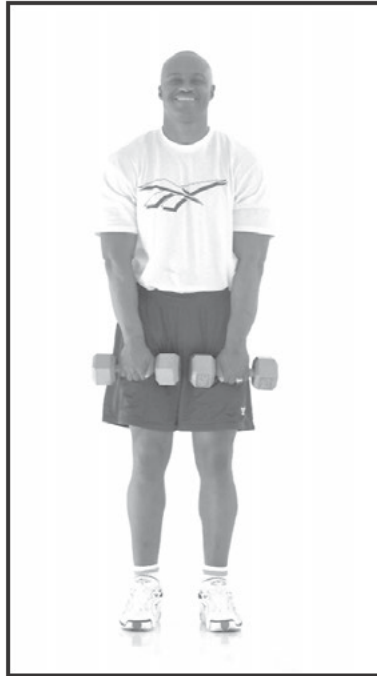
The Dumbbell Shrug is a small movement with a big payoff: It strengthens your shoulders and the trapezius muscles of your upper back. Be careful if you're prone to **neck** problems.

### *Getting set*

Stand tall and hold a dumbbell in each hand, arms straight down, palms in front of your thighs and facing in. Pull your abdominals in, tuck your chin towards your chest and keep your knees relaxed. See photo A of Figure 8-3.

**The exercise**

Shrug your shoulders straight up towards your ears the same way you do if you don't know the answer to the \$64,000 question on *Who Wants To Be A Millionaire*. Slowly lower your shoulders to the starting position. See photo B of Figure 8-3.



A)



B)

**Figure 8-3:** Shrug your shoulders straight up rather than rolling them in a circle.

**Do's and don'ts**

- ✓ DO keep your neck and shoulders relaxed.
- ✓ DON'T roll your shoulders in a complete circle, a common exercise mistake that places too much stress on your shoulder joint.
- ✓ DON'T move body parts other than your shoulders.

**Other options**

**Barbell Shrug:** Hold a bar with your hands shoulder-width apart and in front of your thighs, palms facing in. Do the exact same movement as in the basic version.



**Shrug Roll (harder):** Shrug upwards as in the basic version, squeeze your shoulder blades together, and then lower them back down. This version brings the trapezius and rhomboids (two back muscles) more into play.

**Modified Upright Row:** Stand tall with your feet hip-width apart while holding a barbell in front of you at waist level. Place your hands about 15 centimetres apart. Bend your elbows to raise the bar upwards until it is just above the level of your belly button. Slowly return to the start. **Note:** We don't recommend the full Upright Row, which involves pulling your arms up until the bar is directly underneath your chin. This movement can be hard on your shoulder joints, rotator cuff, tendons and ligaments.

## Machine Row



The Machine Row focuses on your back, with additional emphasis on your shoulders and biceps. Take special care if you've had **lower back** or **shoulder** injuries.

### Getting set

Sit facing the weight stack of the machine with your chest against the chest pad. Adjust the seat so that your arms are level with the machine's handles and you must stretch your arms fully to reach them. This is an important adjustment — one that many people forget to make. If you can't fully straighten your arms when you grasp the handles, you'll end up using your arm muscles a lot more than your back muscles. Grasp a handle in each hand and sit up very tall. See photo A in Figure 8-4.

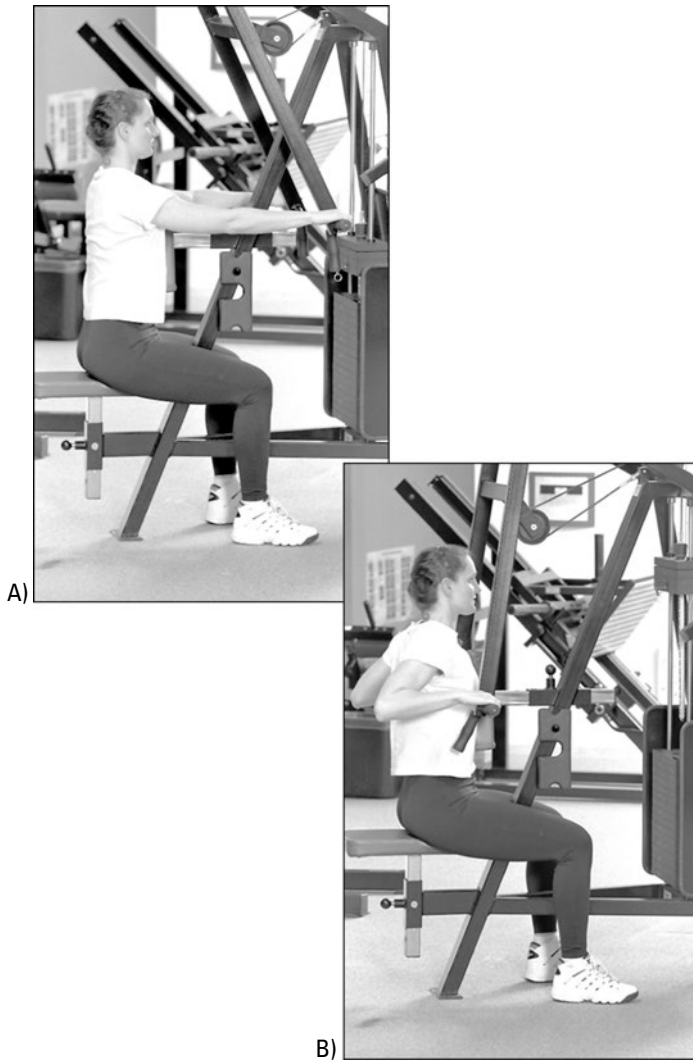
### The exercise

Pull the handles towards you until your hands are alongside your chest. As you bend your arms, your elbows should travel directly behind you, not out to the side. At the same time, squeeze your shoulder blades together. Slowly straighten your arms, feeling a stretch through your shoulder blades as you return the handles to their original position. See photo B of Figure 8-4.



### Do's and don'ts

- ✓ DO sit up even taller as you pull the weight.
- ✓ DON'T lean back so far that your chest comes off the pad as you bend your arms.
- ✓ DON'T round your back or lean forward as you return the handles to the starting position.
- ✓ DON'T stick your neck forward as you pull the weight.



**Figure 8-4:**  
Sit up tall  
as you  
perform the  
Machine  
Row.

### *Other options*

**Other machines:** Although each manufacturer has its own version of the Machine Row, the same basic rules apply. Depending on the brand, the handles may be parallel, perpendicular or diagonal; some machines have all three grips. Experiment with different grips to get a different feel from this exercise.

**Advanced Machine Row (Harder):** Do this exercise without keeping your chest on the chest pad. Without the support, you have to work harder to sit up straight.



## Lat Pulldown



The Lat Pulldown is primarily a back exercise, although your shoulders and biceps also see some action. Try switching grips and attachments to give this exercise a different feel. Be careful if you have **shoulder** or **lower back** problems.

### Getting set

Before you start, sit in the seat and adjust the thigh pads so that your legs are firmly wedged underneath the pads with your knees bent and your feet flat on the floor. Then stand up and grasp the bar with an overhand grip and your hands about 15 centimetres wider than shoulder-width apart. Still grasping the bar, sit back down and wedge the tops of your thighs (just above your knee) underneath the thigh pads. Stretch your arms straight up, keep your chest lifted, and lean back slightly from your hips. See photo A in Figure 8-5.

### The exercise

In a smooth, fluid motion, pull the bar down to the top of your chest. Hold the position for a moment, then slowly raise the bar back up. When you've completed the set, stand up in order to return the weights to the stack. Don't just let go of the bar while you're seated — this causes the weight stack to come crashing down. See photo B in Figure 8-5.

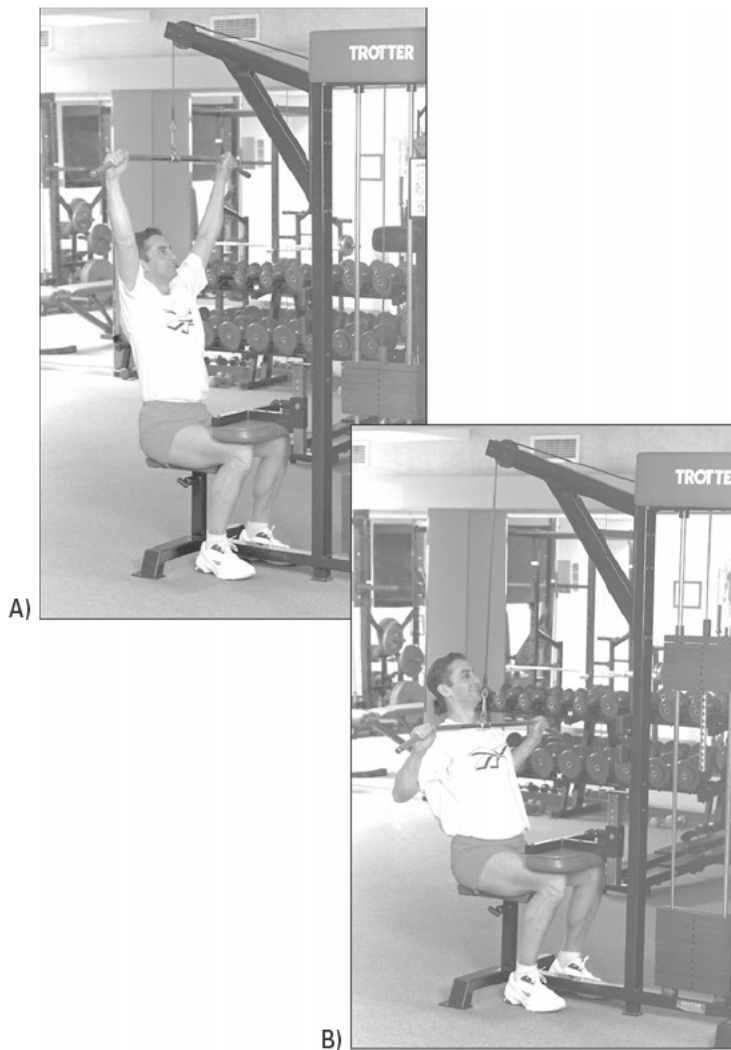


### Do's and don'ts

- ✓ DON'T rock back and forth in an effort to pull down the weight.
- ✓ DON'T lean way back as you pull the weight down. Keep that 5-centimetre-or-so lean that you had at the beginning of the movement.
- ✓ DON'T move so quickly that you jerk your elbows or shoulders.
- ✓ DON'T bend your wrists.

### Other options

**Changing your grip:** You can experiment with the width of your grip and the orientation of your palms to give this exercise a different feel. For example, you can use the triangle attachment for a **Triangle-grip Lat Pulldown**. Or you can use an underhand grip (**Reverse-grip Lat Pulldown**) and hold near the centre of the bar for a pulldown that feels similar to a chin-up. For reasons we explain earlier in this chapter, avoid pulling the bar behind your neck. Experiment with other attachments of varying lengths and curves, such as the short straight bar and rope.



**Figure 8-5:**  
Don't lean more than about 5 centimetres back as you pull the bar down.

## Cable Row



The Cable Row strengthens your back, along with your biceps and shoulders. Be especially careful if you've had **lower back** or **shoulder** problems.

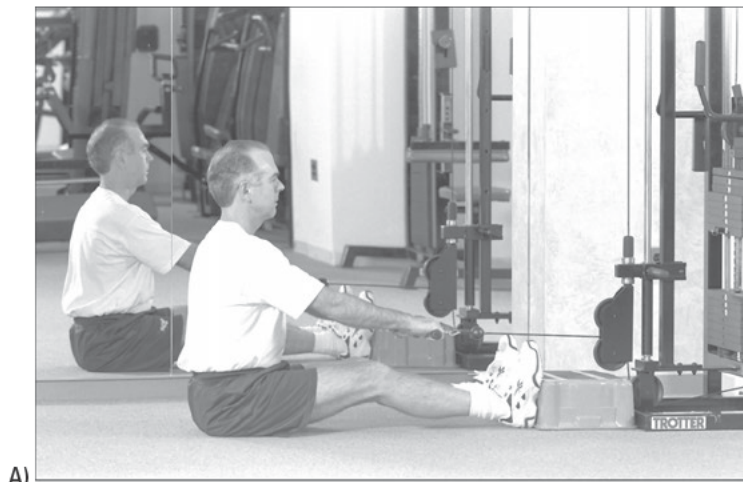
### Getting set

Hook the short straight bar attachment onto a low pulley. Place a riser from a step bench (or box of similar length) directly against the base of the cable tower. (Some machines come with a foot bar so you don't need to

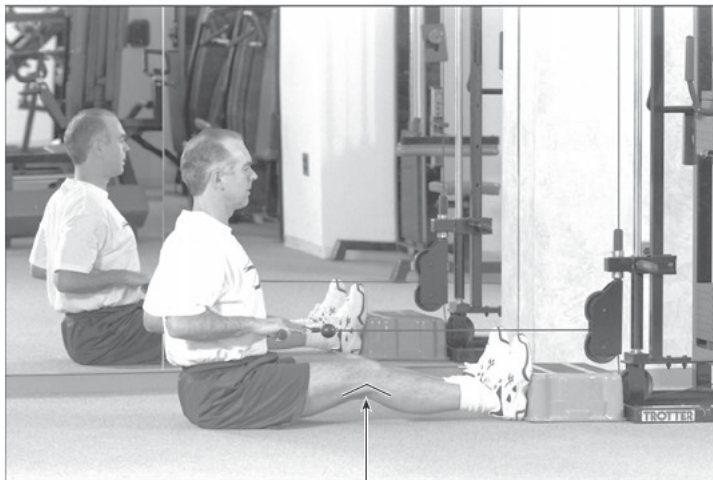
add a box.) Sit facing the tower with your legs slightly bent and hip-width apart, and your feet firmly planted against the riser. Grasp the handle and straighten your arms out in front of your chest. Sit up as tall as you can, pulling your abdominals in and lifting your chest. See photo A in Figure 8-6.

### *The exercise*

Sitting up tall, pull the handle towards the lower part of your chest, squeezing your shoulder blades together as you pull. Your elbows should travel straight back, arms brushing lightly against your sides as you go. Without stretching forwards, straighten your arms slowly back to the start. See photo B in Figure 8-6.



A)



B)

**Figure 8-6:**  
Feel this  
exercise in  
your back,  
not just your  
arms.

Keep your knees slightly bent.



### *Do's and don'ts*

- ✓ DO feel this exercise in your back, not just your arms. Concentrate on starting the pull with the outer edges of your back.
- ✓ DON'T round your back.
- ✓ DON'T rock back and forth to help you lift and lower the weight.

### *Other options*

**Extended Row:** The basic version of this exercise is excellent for targeting the upper back muscles. However, you can strengthen your lower back at the same time by leaning forward about 5 centimetres at your hips as you stretch your arms out and by leaning back slightly as you pull the handle towards you. Some exercise purists scorn this version because it doesn't 'isolate' your upper back, but we think it's great for people who do a lot of rowing or activities in which the upper and lower back work together: weeding, dancing or climbing. However, skip this version if you have a history of low back pain.

**One-arm Cable Row:** Attach a horseshoe handle and perform this row one arm at a time.

## *Assisted Pull-up*



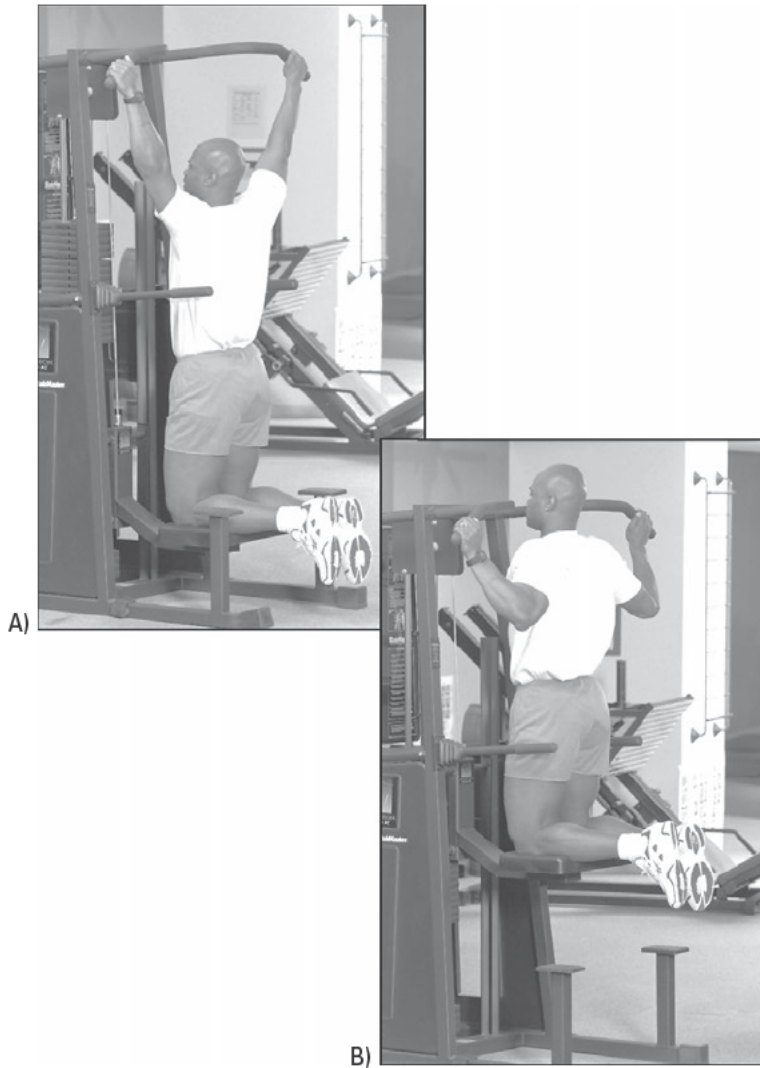
The Assisted Pull-up (also known as an *Assisted Chin-up*) targets your back, with additional emphasis on your shoulders and biceps. Be careful if you have **lower back** or **shoulder** problems.

### *Getting set*

Step up on the platform of an Assisted Pull-up machine (sometimes called an Assisted Chin-up machine) and carefully kneel on the knee pads. (Some versions require you to stand.) Grab the handles that place your palms facing forwards and straighten your arms. Pull your abdominals in and keep your body tall. See photo A in Figure 8-7.

### *The exercise*

Pull yourself up until your elbows are pointing down and then slowly lower your body back down. See photo B in Figure 8-7.



**Figure 8-7:**  
Don't cheat  
by rocking  
your body.



### *Do's and don'ts*

- ✓ DO relax your shoulders so they don't hunch up by your ears.
- ✓ DON'T rock your body to help move you up and down.
- ✓ DON'T arch your back or round forward.
- ✓ DON'T dawdle at the bottom of the exercise. Move steadily until you finish your reps.

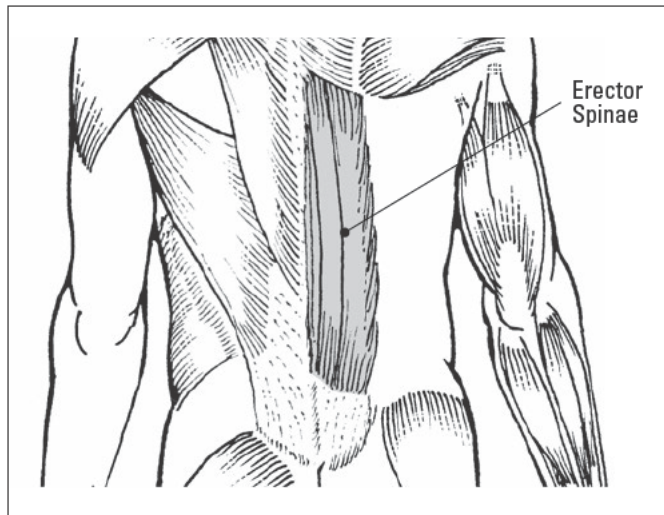
### *Other options*

**Different grips:** Some Assisted Pull-up machines have a choice of grips. Experiment to see which ones you like best.

**Bar Pull-up (Harder):** Using a Smith machine or power cage, set the bar so that it is securely resting against the stops set in the centre of the frame. Grasp the centre of the bar with your hands 5 centimetres or so apart and palms facing you. Kick your legs out in front of you so that your torso forms a 45-degree angle with the floor. Bend your arms and pull yourself upwards until the top of your chest touches, or nearly touches, the bar. Slowly lower to the start position. This version of the pull-up is a good precursor to learning the full-fledged Chin-up described in Chapter 15.

## *Lower Back Muscle Basics*

Your lower back muscles have two main jobs: bending your spine backward and bracing your torso when you move some other part of your body. (Your lower back muscles perform this stabilising job in tandem with your abdominal muscles, located directly in front of them.) The main lower back muscles you need to know about are the *erector spinae*. Feel along either side of your spine just above your hips and you have a handle on your lower erector spinae. Figure 8-8 points out your lower back muscles.



**Figure 8-8:**  
A look at  
the lower  
back.



## Why You Need to Strengthen Your Lower Back

Most lower back exercises — especially those appropriate for beginners — don't involve free weights or machines. Usually, it's just you and the floor. Here's what you can accomplish without any equipment at all:



- ✓ **Real-life benefits:** Sitting puts your spine under a lot of pressure, much more pressure than if you stood all day. That's why your lower back can feel so sore after a day in front of the computer. When your back muscles are weak, you tend to slouch or sit at a funny angle, which places the spine under even more stress. (In addition to strengthening and stretching your lower back on a regular basis, you should take frequent breaks from the sitting position throughout the day.)
- ✓ **Injury prevention:** Ironically, even people with chronic lower back pain tend to neglect lower back exercises, often because they're afraid of inflicting even more damage. Also, while people have gotten the message that abdominal exercises can help alleviate back pain, many don't realise that lower back exercises are equally important in this pursuit. When one of these sets of muscles is stronger or more flexible than the other, your posture is thrown off kilter and you're more prone to back pain. This is a pretty common scenario.
- ✓ **The 'feel good' factor:** Strengthening your lower back will help you stand up straight, which, in turn can make you look slimmer and give you a more confident, commanding presence.

## Keys to a Great Lower Back Workout

We often take for granted the role that our lower back muscles play in our everyday mobility. So, while your lower back muscles need to be strong, they also need to be flexible.

This balance between strength and flexibility is perhaps more important with your lower back than with any other muscle group in your body. That's why we include the Pelvic Tilt, which both strengthens and lengthens out the muscles attached to your spine. This exercise won't score you any points in the macho department, but it's one that everyone should do. The same goes for back extension exercises. However, if you're experiencing back pain right now or have a history of back trouble, check with your doctor before performing extension exercises.



When you do a lower back exercise, you should feel a mild pull or pressure build within the muscle, *not* a sharp pain. If you do feel a piercing pain, back off. Review the exercise description to make sure that you haven't pushed your body too far and then try it again. If you still feel pain, seek medical advice before proceeding any further.

You may feel a dull ache in your back a day or two after you've worked your lower back. This is normal. But if the pain is sharp and so debilitating that your most upright posture looks like you're trying to duck under a fence, you've either pushed yourself too far or you have a back problem.

## *Mistakes to Avoid When Training Your Lower Back*

Few people make mistakes when they do lower back exercises. That's because few people actually take the time to do these exercises, which is a pretty big mistake in itself. Here are a few other common errors:



- ✓ **Don't bend too far back.** On back extensions, raise your body just five centimetres or so and lengthen out as much as you can. With pelvic tilts, the point is to isolate your lower back muscles while keeping your back planted on the floor.
- ✓ **Always do back exercises slowly and carefully.** If you race through them, you may cause the very back problems you're trying to prevent.

## *Lower Back Exercises*

Here we show you the following two lower back exercises, along with several variations:

- ✓ Pelvic Tilt
- ✓ Back Extension

### *Pelvic Tilt*

The Pelvic Tilt is a subtle move that focuses on your lower back, but also emphasises your abdominals and hamstrings. This is a good exercise to do if you have a history of lower back problems.

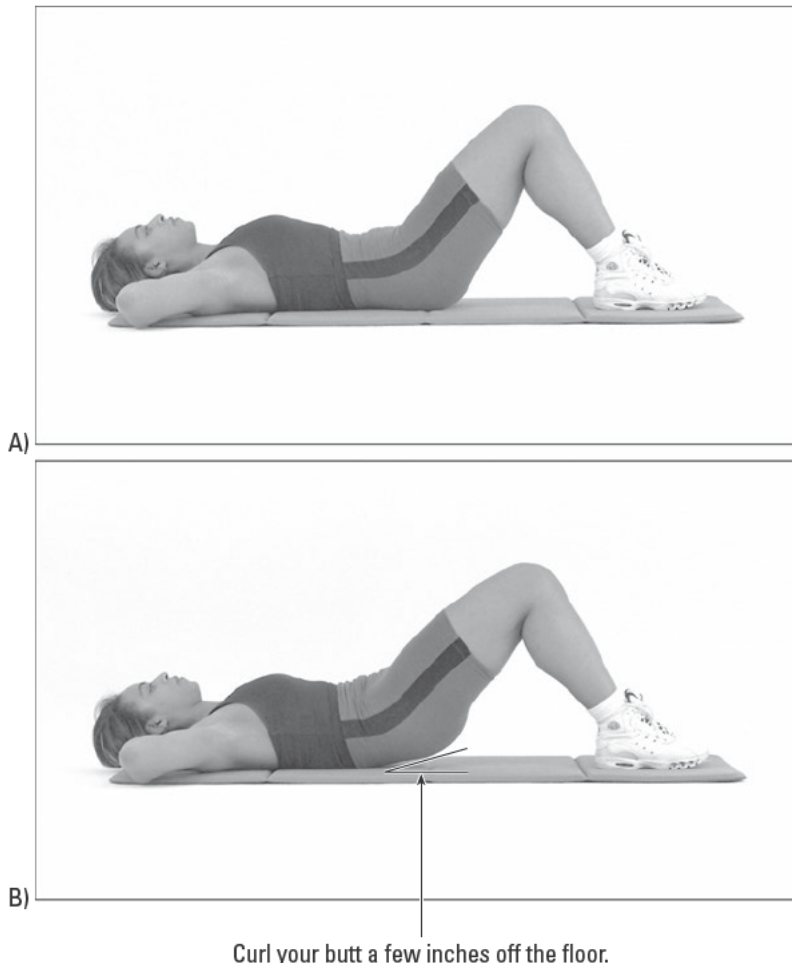


**Getting set**

Lie on your back with your knees bent and feet flat on the floor about hip-width apart. Rest your arms wherever they're most comfortable. Gently press your back down and pull your abdominals in toward your spine. Don't tilt your head up and back. See photo A in Figure 8-9.

**The exercise**

Keeping your entire back against the floor, gently squeeze your butt and tilt your hips up until your rear end curls 5 centimetres or so off the floor. Hold this position for a moment and then slowly lower your butt back down. See photo B in Figure 8-9.



**Figure 8-9:**  
Don't lift  
your lower  
back off  
the floor as  
you tilt your  
pelvis up.



### *Do's and don'ts*

- ✓ DO keep your head, neck, and shoulders relaxed.
- ✓ DON'T lift your lower back off the floor as you tilt your pelvis up.
- ✓ DON'T arch your back off the floor when you lower your hips back down.

### *Other options*

**Chair Tilt (easier):** Lie on your back and place your heels up on the seat of a chair with your knees bent at a right angle and thighs perpendicular to the floor. Then perform the exercise exactly as you would in the basic version.

**Focused Pelvic Tilt:** While performing the Pelvic Tilt, place one hand on your stomach and one hand, palm down, directly underneath the small of your back. The top hand reminds you to keep your abdominals pulled in, and the bottom hand reminds you to keep your lower back on the floor.

**Hip Lift (harder):** At the top of the Pelvic Tilt continue peeling your spine off the floor until only your shoulder blades and shoulders remain on the floor. Work hard to keep your abdominals pulled inwards to prevent your back from sagging. Hold a moment and slowly lower your body downwards.

## *Back Extension*



The Back Extension strengthens your lower back muscles. Performing this exercise on a regular basis can help reduce lower back pain, but use caution if you have a history of back problems or if your **lower back** is bothering you right now.

### *Getting set*

Lie on your stomach with your forehead on the floor, arms straight out in front of you, palms down and legs straight out behind you. Pull your abs in, as if you're trying to create a small space between your stomach and the floor.

**The exercise**

Lift your right arm and left leg five centimetres or so off the floor and stretch out as much as you can. Hold this position for five slow counts, lower back down and then repeat the same move with your left arm and right leg. Continue alternating sides until you've completed the set. See Figure 8-10.

**Do's and don'ts**

- ✓ DO exhale as you lift and inhale as you lower.
- ✓ DO pretend as if you're trying to touch something with your toes and fingertips that's just out of reach.
- ✓ DO pay special attention to how your lower back feels. This exercise may aggravate lower back pain more than other exercises do.
- ✓ DON'T lift up higher than about 5 centimetres.

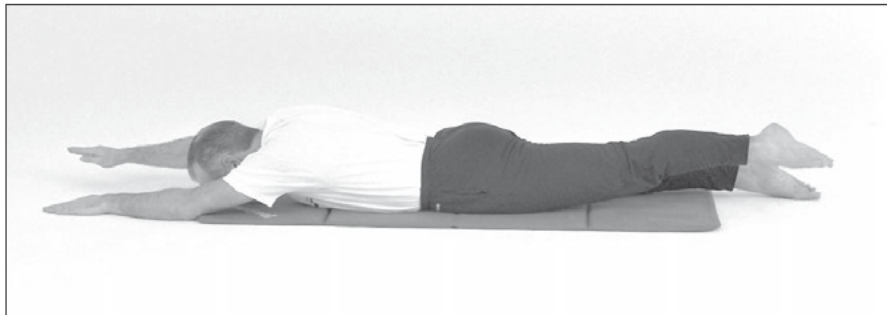
**Other options**

**Sequential Back Extension (Easier):** If the basic version of the Back Extension bothers your lower back, lift and lower your right arm and then lift and lower your left leg.

**Kneeling Opposite Extension (Easier):** Kneeling on your hands and knees, extend your right arm out in front of you and your left leg out behind you. This version places less stress on the lower back and is an excellent modification for those new to lower back training and those who feel lower back discomfort when doing back extension exercises.

**Same-side Back Extension (Harder):** Do the same exercise lifting your right arm and right leg at the same time.

**Figure 8-10:**  
Don't lift  
your arms  
or legs more  
than 5 centimetres  
or so.





## Chapter 9

# Working Your Chest

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### *In This Chapter*

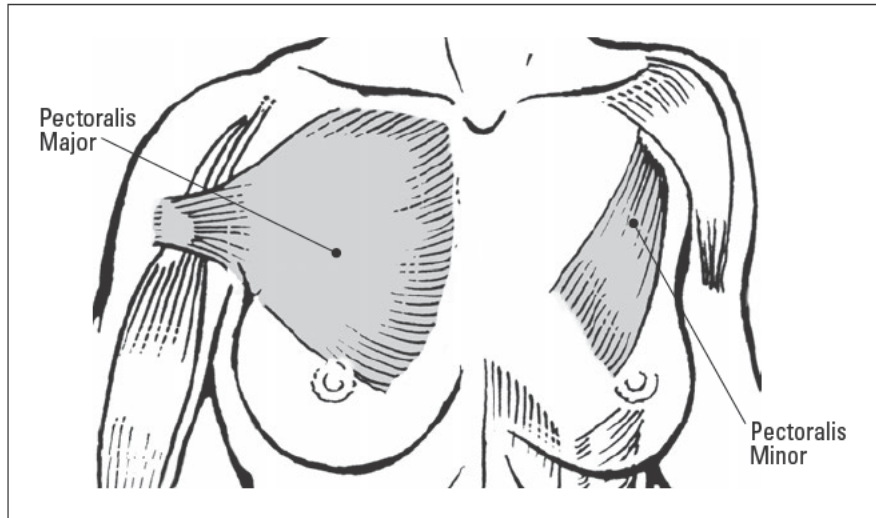
- ▶ Introducing your pecs
  - ▶ Knowing why strong chest muscles matter
  - ▶ Getting a great chest workout
  - ▶ Avoiding classic mistakes when working your chest
  - ▶ Sampling some chest exercises
- 

**S**ome people are so obsessed with their chests that they work this muscle group virtually to the exclusion of all others. In fact, there is an entire subset of the male species who resemble an inflated hot-air balloon from the front and a deflated tyre from the back. Then there are those among us, mostly women, who fear that doing chest exercises may make them look like an East German shot-putter from the Iron Curtain days. These people won't walk anywhere *near* a chest machine.

When it comes to chest exercises, you need to find a happy medium. In this chapter, we explain why chest exercises are important — and why they won't transform you into supermodel Giselle Bündchen or league legend Benji Marshall. We offer tips on choosing the order in which you perform your chest exercises, and we caution you against using one of the most popular chest machines. We also run down the most common mistakes people make when working their chest muscles.

## *Chest Muscle Basics*

The technical name for your chest muscles is the *pectorals*, but gym regulars shorten the term to *pecs*. You have two pec muscles: the *pectoralis major* and the *pectoralis minor*. Whenever you place your hand on your heart, your hand is covering the meat of the pectoralis major; the pec minor resides underneath. Figure 9-1 shows the location of your pectorals. With the help of other muscles, such as your shoulder muscles and triceps, your pecs are in charge of a variety of pushing and hugging movements.



**Figure 9-1:**  
You work  
your  
pectorals  
when you  
do chest  
exercises.

## Why Strong Pecs Matter

This may be the first time you've given your chest muscles any thought, but you've been depending on them your whole life to push things around. Now that you'll be performing chest exercises, you can be pushier than ever. (However, you can never be as pushy as the perfume salespeople who assault us upon entering department stores.) Here's how you can profit from training your pecs:

- ✔ **Real-life benefits:** You'll have more oomph when you push a lawn mower or a full shopping cart with two kids hanging off the end — or when you wrap your arms around Uncle Leo at Christmas after he's eaten an entire barbecued chook.
- ✔ **Injury prevention:** Your chest muscles are attached to your shoulder joint. So with strong pecs, you're less likely to injure your shoulders while rearranging your furniture or pushing your car out of a ditch.
- ✔ **The 'feel good' factor:** Chest exercises can make a woman's breasts appear firmer, although keep in mind that these exercises won't transform anyone from an AA cup to a C cup or vice versa. As for men: Pec training can make your chest fuller. However, both sexes should maintain realistic expectations about chest exercises.

## Keys to a Great Chest Workout

You can change the feel and focus of many chest exercises by adjusting the angle of the bench you use. (See Chapter 1 for descriptions of various benches.) Performing chest exercises on a flat bench emphasises those fibres in the centre of your chest. When you adjust the bench a few degrees to an incline position, you shift the focus of the exercise to the fibres in your upper chest and shoulder muscles. Doing the opposite — adjusting the bench to a decline position — concentrates the work on the lower fibres of the chest. By the way, decline exercises are probably the least important category of chest exercises because they work a relatively small portion of the pecs.



We won't be showing you how to operate one popular chest machine: the *Pec Deck*. You sit with your arms spread apart, each arm bent and placed on a pad. You push the pads towards each other as if you're clapping in slow motion. We think the *Pec Deck* should be renamed the *Pec Wreck*, or more accurately, the *Shoulder Wreck*. These machines place an enormous amount of pressure on the shoulder joint and rotator cuff and frequently lead to injury. What's more, they don't actually do much for your pec muscles. A safer and more effective alternative to the *Pec Deck* is the Dumbbell Chest Press (shown in this chapter).



Because your chest muscles are among the largest in your upper body, we suggest that you perform more sets of exercises with these muscles than with the smaller muscle groups of your arms. In general, we recommend doing 3 to 12 sets of chest exercises per workout, although true beginners should start with one set. By the way, when we say 12 sets, we don't mean a dozen sets of the same exercise; you may want to do 3 or 4 (or more) different exercises. Also, remember to begin each exercise with an easy warm-up set. Even power-lifters who can bench press 250 kilograms often warm up with a 20 kilogram bar.



Which chest exercises should you do first? Experts argue this point, but we suggest that you let personal preference be your guide. We like to perform free-weight exercises when we're fresh because they tend to require more strength and control; however, if you're just starting out, you might prefer to use the machine-based exercises so you can familiarise yourself with the correct technique and learn to 'switch' the right muscles on.

Also, we perform flat-bench exercises before incline or decline exercises. Experiment with the order of exercises for a couple of weeks until you come up with a sequence that works for you. You may even want to change the sequence from time to time. If you always do the Bench Press before the Dumbbell Chest Press, for example, you may never realise your true Dumbbell Press potential because your chest muscles will always be tired by the time you get to that exercise.



As for the number of repetitions to perform per set, the general rule — 8 to 15 reps — certainly applies to chest work. However, determining your *one-rep max* — that is, the maximum amount of weight you can lift once — is somewhat of an ancient gym tradition with the Bench Press. Don't try this until you've been lifting weights for a month or two, and don't attempt to *max out* more often than once a week. In fact, some experts believe that maxing out once a month brings better results. When you do attempt a maximum weight, make sure that you have a *spotter*, a mate ready to grab the weight in case you overestimated your strength. (See Chapter 2 for tips on how to be spotted.) If you're going for your one-rep max, do a few warm-up sets, gradually increasing the weight.

## Mistakes to Avoid When Pumping Your Pecs



One morning Liz was working at a gym when a member came up and casually mentioned that another member needed help on the Bench Press. Liz strolled over to find this man trapped underneath a bar that apparently had been too heavy for his chest muscles to handle. 'Caesar,' she asked, 'how long have you been there?' 'About twenty minutes,' he replied. Why hadn't he yelled for help? He was too embarrassed. Moral of the story: Safety is more important than lifting heavy weights. In addition to lifting the proper amount of weight, take the following precautions when working your chest:



- ✓ **Don't lock your elbows.** In other words, don't straighten your arms to the point that your elbows snap. This puts too much pressure on the elbows and can lead to *tendonitis* or inflammation of the elbow joint itself. When you straighten your arms, aim to keep your elbows slightly relaxed.
- ✓ **Don't arch your back.** In an effort to hoist more weight, some people arch their backs so severely that there's enough room between their back and the bench for a Range Rover to drive through. Sooner or later, this position causes a back injury. Plus, you're doing nothing to strengthen your chest muscles. Instead, you're overstraining your lower back.
- ✓ **Don't lift your shoulder blades off the bench or back rest.** Otherwise, your shoulders will bear too much weight — without any support from the bench. This is a subtle error but one that may be costly for your shoulder joint.



- ✓ **Don't stretch too far.** When you lie on your back and perform the Bench Press, you may be tempted to lower the bar all the way to your chest. Similarly, when you perform a Push-up, you may want to lower your body all the way to the floor — don't! Extending the bar all the way to your chest, or your body all the way to the floor, generally means compromising technique when you're a beginner. Until you're confidently completing these exercises and have built up sufficient strength, follow the instructions we provide for these and similar chest exercises.

## Exercises in This Chapter

Here's a glance at the chest exercises featured in this chapter:

- ✓ Modified Push-up
- ✓ Bench Press
- ✓ Dumbbell Chest Press
- ✓ Seated Chest Press machine
- ✓ Cable Crossover

### Modified Push-up



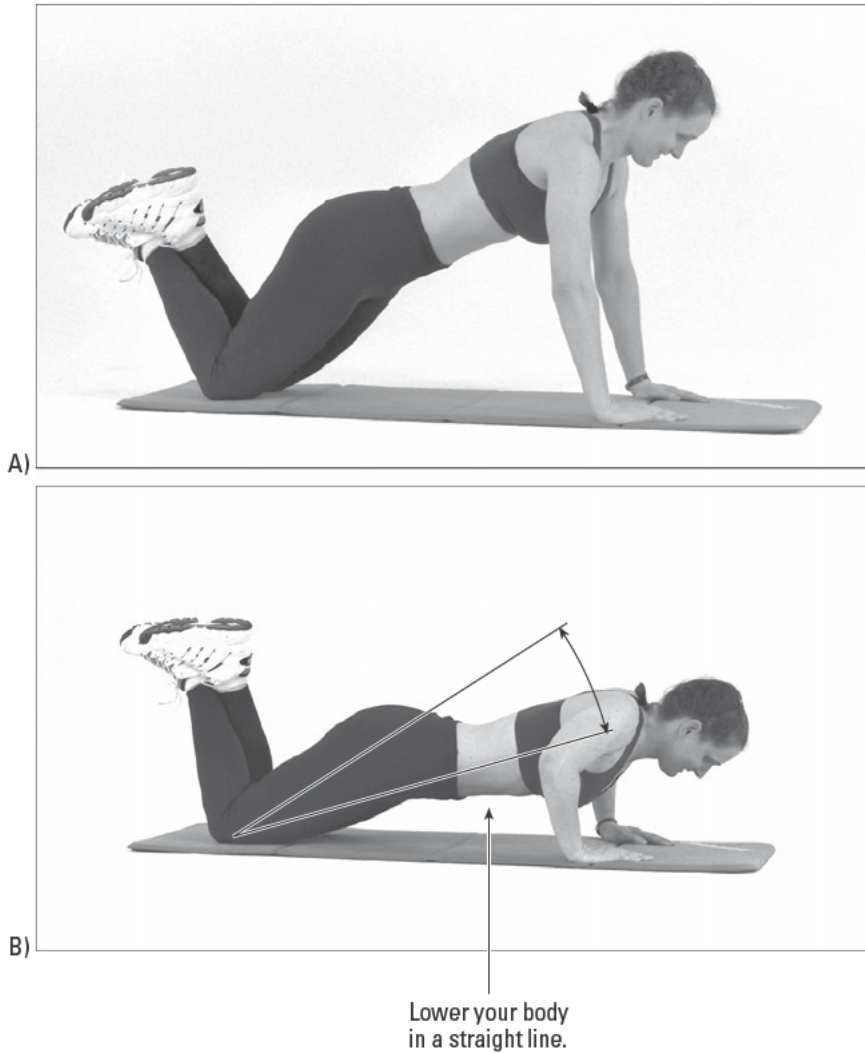
The Modified Push-up strengthens your chest muscles, with additional emphasis on your shoulders and triceps. Be extra careful if you have **lower back, shoulder, elbow** or **wrist** problems.

#### Getting set

Lie on your stomach, bend your knees and cross your ankles. Bend your elbows and place your palms on the floor a bit to the side and in front of your shoulders. Straighten your arms and lift your body so that you're balanced on your palms and the part of your thighs just above your knees. Tuck your chin a few centimetres towards your chest so that your forehead faces the floor. Tighten your abdominals. See photo A in Figure 9-2.

**The exercise**

Bend your elbows and lower your entire body at once. Rather than try to touch your chest to the floor, lower only until your upper arms are parallel to the floor. Push back up. See photo B in Figure 9-2.



**Figure 9-2:**  
Tighten your  
abs so that  
your back  
doesn't sag.



### *Do's and don'ts*

- ✓ DO keep your abdominal muscles pulled in tight throughout the exercise so that your back doesn't arch like a swayback horse; otherwise you're begging for a lower back injury.
- ✓ DON'T lock your elbows at the top of the movement.
- ✓ DON'T do the dreaded *head bob*. That's when you dip your head towards the floor without moving any other part of your body. Talk about a giant pain in the neck!

### *Other options*

**Wall Push-up (Easier):** Stand a few feet away from a wall and place your palms flat on the wall slightly wider than your shoulders. Bend your elbows and lean into the wall. Then press yourself away from the wall by straightening your arms.

**Incline Push-up:** This version is easier than the Modified Push-up but harder than the Wall Push-up. Follow the same set-up as the basic version of this exercise, but place your hands on top of a step bench that has two or three sets of risers underneath.

## *Bench Press*



The Bench Press, crowned the king of all chest exercises by bodybuilders, primarily works your chest muscles, with plenty of emphasis on your shoulders and triceps, too. You may want to try a modified version of this exercise — or avoid it altogether — if you have **lower back**, **shoulder** or **elbow** problems.

### *Getting set*

Lie on the bench with your feet flat on the floor or up on the bench if the bench is too tall. Grip the bar so that your arms are evenly spaced a few centimetres wider than shoulder-width apart. Your upper arms should be slightly above parallel to the floor. Tuck your chin towards your chest and pull your abdominals in tight, but don't force your back into the pad, or overarch it, either. Lift the bar off the rack and push it directly up over your shoulders, straightening your arms without locking your elbows. See photo A in Figure 9-3.

*The exercise*

Lower the bar until your elbows are slightly below your shoulders. The bar may or may not touch your chest — this will depend on how long your arms are and how big your chest is. Press the bar back up. See photo B in Figure 9-3.



**Figure 9-3:**  
Don't squirm  
around or  
arch your  
back in  
order to  
hoist the  
bar.

Don't lower your elbows much below shoulder level.



### *Do's and don'ts*

- ✓ DO remember to breathe. Exhale as you press the bar up, and inhale as you lower it.
- ✓ DON'T cheat. In other words, if you have to wiggle around or arch your back in order to hoist the bar, you're not doing much for your chest, but you are asking for lower back injuries.
- ✓ DON'T press the bar up too high; your elbows should stay relaxed and your shoulder blades should remain on the back rest throughout the exercise.

### *Other options*

**Towel Chest Press (Easier):** Roll up a large bath towel and place it across your chest. Lower the bar until it touches the towel and then press back up. This is a good one if you have shoulder problems.

**Incline Bench Press:** Incline the bench a few inches and then do the exercise as described above. This version emphasises the upper fibres of your pecs and shoulders.

**Decline Bench Press:** Do this exercise on a decline bench, with your head lower than your feet. This requires a special decline version of the bench press station. Some bench press stations can be set flat, incline or decline whereas others are permanently fixed in the decline position.

## *Dumbbell Chest Press*



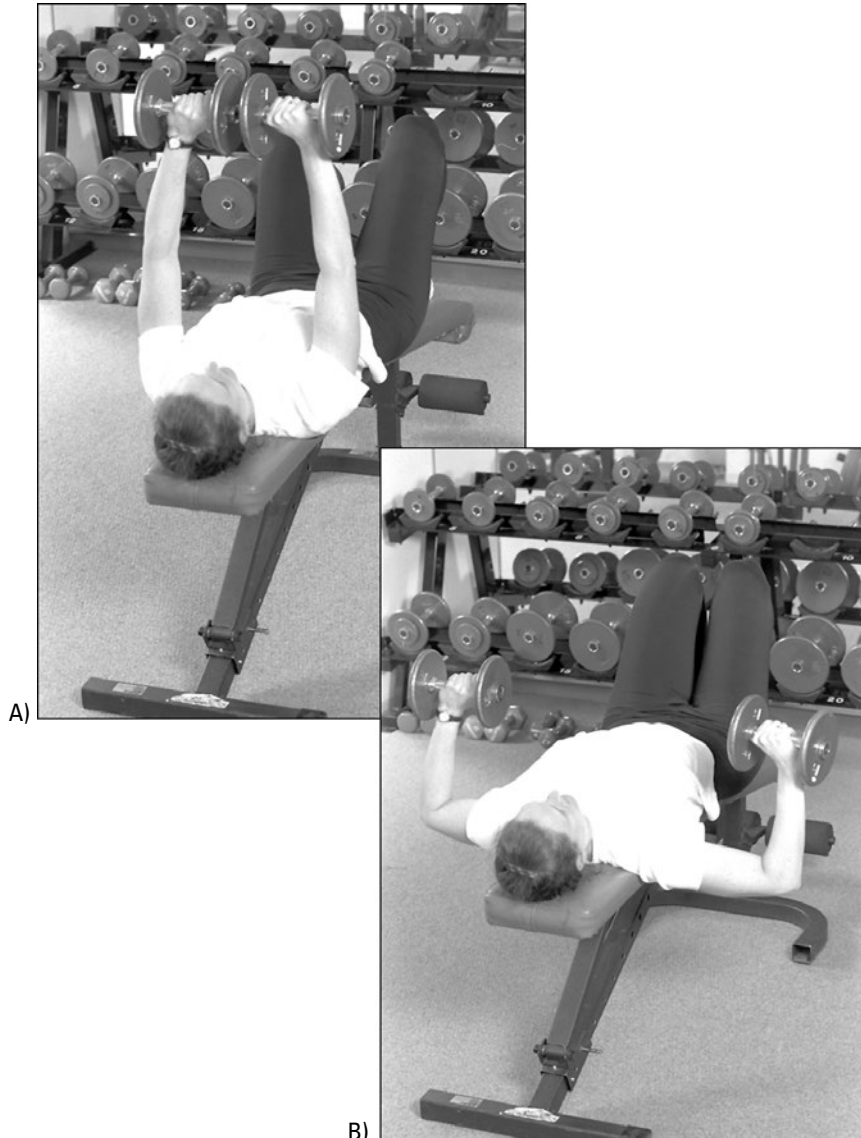
The Dumbbell Chest Press closely mimics the Bench Press. It works your chest muscles, along with your shoulders and triceps. You may want to modify or avoid this exercise if you have **shoulder, elbow or lower back** problems.

### *Getting set*

Lie on the bench with a dumbbell in each hand and your feet flat on the floor (or up on the bench if it's more comfortable). Push the dumbbells up so that your arms are directly over your shoulders and your palms face forward. Pull your abdominals in, but don't jam your back into the bench; don't let it arch way up, either. Tilt your chin towards your chest. See photo A in Figure 9-4.

***The exercise***

Lower the dumbbells down and a little to the side until your elbows are slightly below your shoulders. Push the weights back up, taking care not to lock your elbows or allow your shoulder blades to rise off the bench. See photo B in Figure 9-4.



**Figure 9-4:**  
Don't lock  
your elbows  
at the  
top of the  
movement.



### *Do's and don'ts*

- ✓ DO allow your back to keep a natural arch so that you have a slight gap between your lower back and the bench.
- ✓ DON'T contort your body in an effort to lift the weight; lift only as much weight as you can handle while maintaining good form.

### *Other options*

**Partial Dumbbell Press (Easier):** Lower the weights only about three quarters the distance of the basic version of this exercise. Try this version if you have elbow, shoulder or rotator cuff problems.

**Incline Chest Press:** Perform this exercise on an incline bench. You'll use less weight than when you perform a flat-bench press.

**Decline Chest Press:** Do this exercise on a decline bench, with your head lower than your feet. The hardest part of this version is picking up and releasing the weights. Grab the weights while you're sitting up, hold them against your chest and ease yourself into the decline position. When you're done with the exercise, gently ease the dumbbells off to either side to the floor. (Don't just drop them.) Better yet, ask someone to hand the weights to you at the start of the exercise and take them away when you're done.

## *Seated Chest Press machine*



The Seated Chest Press machine focuses on your chest muscles, with additional emphasis on your triceps and shoulders. Most vertical chest machines have more than one grip so that you can work your chest muscles in different ways. Use caution if you have **shoulder** or **elbow** problems.

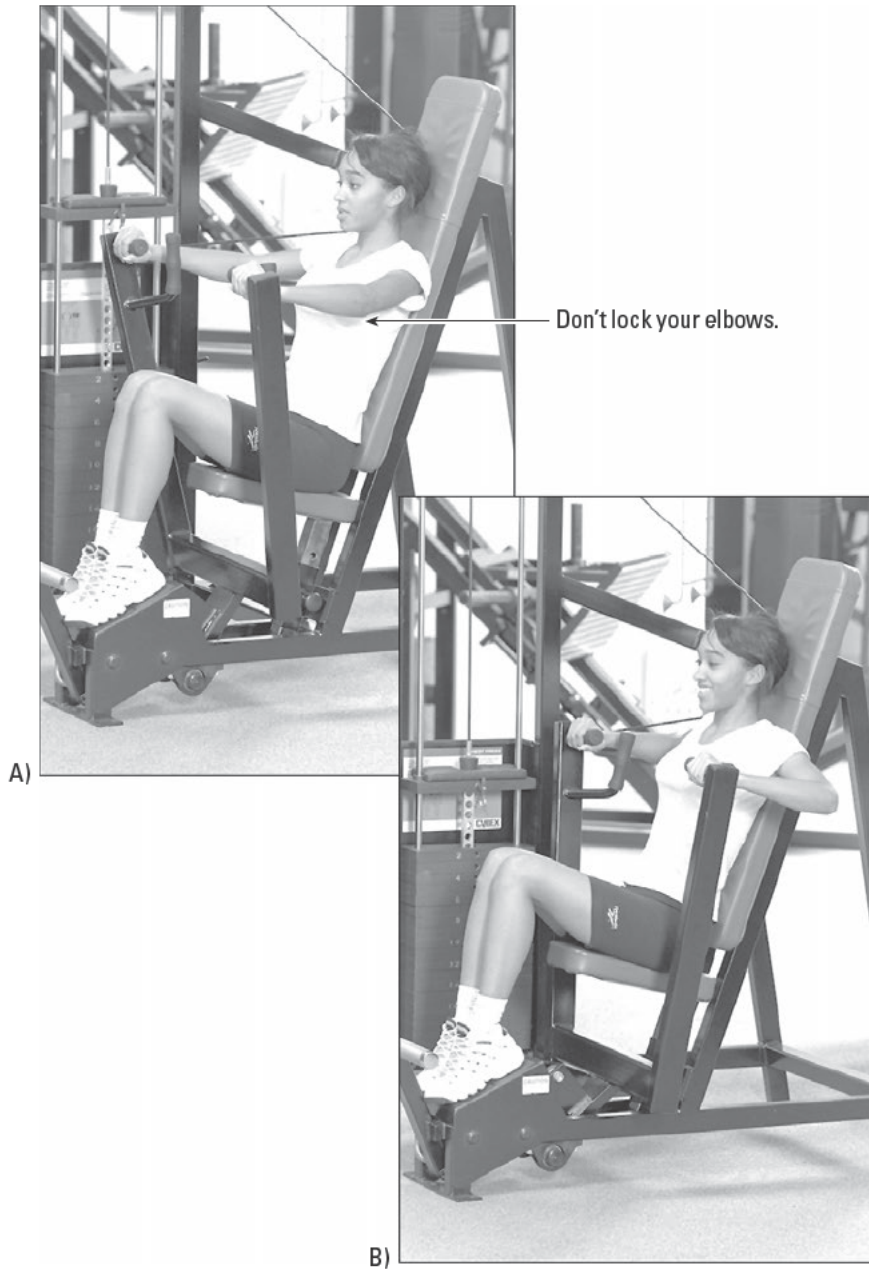
### *Getting set*

Sit in the machine so that the centre of your chest lines up with the set of horizontal handle bars. Press down on the foot bar so that the handles move forward. Grip the horizontal handles. Straighten your arms, pushing the handles forward. Keep your abdominals tight so that your upper back remains on the pad. See photo A in Figure 9-5.

### *The exercise*

Remove your feet from the foot bar — you'll feel the weight of the stack transfer into your hands. Slowly bend your arms until your hands are just in front of your chest, and then push the handles forward until your arms are straight. When you have completed your set, put your feet back on the foot bar and let go of the handle bars *before* you lower the weight stack all the way down. See photo B in Figure 9-5.





**Figure 9-5:**  
Don't press  
so quickly  
that your  
elbows  
snap shut.





### *Do's and don'ts*

- ✓ DO keep your neck against the backrest.
- ✓ DON'T press so quickly that your elbows snap shut and your shoulders come up off the backrest.

### *Other options*

**Different angles:** You may find chest machines that position you horizontally and at many angles between horizontal and vertical. Other machines are designed so that the left and right sides work independently of each other; in other words the left and right levers of the machine are not connected to one another so when you raise the weight, both sides of your body have to fend for themselves. Machines with independent action are a good alternative for those with left-right muscle imbalances or those who wish to combine the safety of using a machine with the feel of using free weights. Try 'em all and decide which ones you like best.

**Vertical Grip (Harder):** Use the vertical handle of your chest machine. This grip factors out a lot of the help you get from your shoulders when using the horizontal grip.

## *Cable Crossover*



The Cable Crossover strengthens your chest muscles, with emphasis on the shoulders as well. Be careful if you have **shoulder, elbow or lower back** problems.

### *Getting set*

Set the pulleys on both towers of a cable machine to the top position. Clip a horseshoe handle (see Chapter 1 for description of all the different cable pulley handles) to each pulley. Stand between the towers with your legs comfortably apart and with one foot slightly in front of the other. Grasp a handle in each hand, palms facing down and slightly forward. Tighten your abdominals, lean slightly forward from your hips, and relax your knees. See photo A in Figure 9-6.

### *The exercise*

Keeping a slight bend in your elbows, pull the handles down so that one wrist crosses slightly in front of the other. Then slowly raise your arms up and out to the sides until your hands are level with your shoulders. See photo B in Figure 9-6.



A)



B)

**Figure 9-6:**  
Lean slightly  
forward to  
take the  
pressure off  
your lower  
back.



### *Do's and don'ts*

- ✓ DO exhale deeply before bringing your hands together.
- ✓ DO initiate the move from your chest; in other words, keep your shoulders, elbows and wrists in the same position throughout.
- ✓ DON'T forget that slight forward lean: It takes the pressure off your lower back.

### *Other options*

**Flat Bench Cable Fly:** Set the cables to the lowest point on the towers, and place a flat bench in the centre of the towers. Grasp a handle in each hand and lie on your back. Straighten your arms up directly over your shoulders and then spread your arms down and to the side until your elbows are just below shoulder level.

**One-hand Crossover:** Do the basic cable crossover one arm at a time. Place the unused hand on your hip or hold onto the cable tower.



## Chapter 10

# Working Your Shoulders

### *In This Chapter*

- ▶ Introducing your deltoids
- ▶ Strengthening your shoulders: why you need to
- ▶ Getting a great shoulder workout
- ▶ Avoiding classic mistakes when training your shoulders
- ▶ Sampling some shoulder exercises

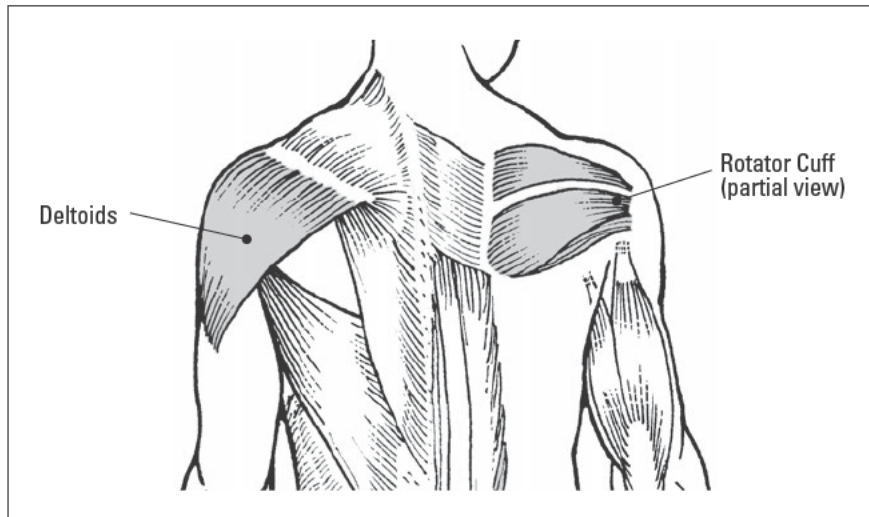
Next time the power goes out in your neighbourhood, watch a police officer stand in the middle of a four-way intersection and direct traffic. Or next time you're at the video store, rent *Saturday Night Fever* and watch John Travolta do the Hustle. Either way, you'll get a good idea of what the human shoulder muscle can do. When you move your arms in virtually any direction — up, down, backwards, forward, sideways, diagonally — your shoulders are in charge, or at least involved. The ingenious design of your shoulder joint makes the shoulders one of the most mobile, versatile muscle groups in your body.

Unfortunately, their amazing capacity for movement also makes the shoulders, along with a nearby muscle group called the *rotator cuff*, particularly vulnerable to injury. In this chapter, we show you how to protect your shoulders by performing a variety of exercises. And if disco ever makes a comeback, you'll be duly prepared.

## *Shoulder Muscle Basics*

Your shoulder muscles are officially called the *deltoids*, or *delts*, but fitness types usually refer to them simply as your shoulders. These muscles run from the top down to the centre of your upper arms. They're able to move in so many directions because your shoulder joint is a *ball-and-socket joint*: The round head of your arm bone snaps neatly into your shoulder socket. Your hip is another ball-and-socket joint, but even that joint doesn't have the mobility that your shoulder does.

The *rotator cuff* is a group of four muscles that keep your arm from slipping out of its socket. They reside underneath your delts, performing their job in complete anonymity. Unfortunately, they're so anonymous that many people don't even know that they exist and, therefore, don't bother to train them. The only time they seem to get any recognition is when a professional cricket bowler is sidelined for the season by a rotator cuff injury. Your rotator cuff muscles enable you to twist your arm while your elbow is straight, such as when you turn your palm to face forward and then backwards. They also get in on the act during throwing and catching motions and when you raise your arms above your head. Figure 10-1 illustrates the shoulder muscles.



**Figure 10-1:**  
Your  
shoulder  
muscles.

## *Why You Need to Strengthen Your Shoulders*

Your shoulders do a fair amount of work whenever you perform back and chest exercises, but performing exercises that single out your delts is also important for the following reasons:

- ✓ **Real-life benefits:** Strong shoulders make most arm movements easier, whether you're hitting your brother with a water balloon, passing the potatoes across the table or lifting your hands to do the 'wave' at sporting events. Virtually every upper body exercise involves your shoulder muscles to some extent, so strengthening your shoulders enables you to lift heavier weights on chest and back exercises.

- ✓ **Injury prevention:** If your shoulders are weak, they're going to take a beating even if you perform chest and back exercises perfectly. Shoulder exercises also can prevent weekend-warrior type injuries, such as shoulder tears from throwing a softball or hitting a hockey ball into the garbage can that serves as your hockey goal. If your shoulders are weak, you can even injure yourself while opening a dresser drawer.
- ✓ **The 'feel good' factor:** Open up any bodybuilding magazine and you see headlines such as, 'Grow those big caps even bigger' or 'Delts to die for'. Bodybuilders take their shoulder training very seriously because they know that these muscles play a big part in their appearance, which, after all, is what bodybuilding is all about. Even if you don't want to develop delts to die for, you can still develop toned, shapely shoulders that look pretty damn good.

## Keys to a Great Shoulder Workout

There are literally dozens of ways to strengthen these muscles, so if you're sitting there with a dumbbell in your hand saying to yourself, 'I need to work my shoulders today, and I can't think of anything to do', you certainly can't blame us for your quandary. Here are the four main types of shoulder movements. (Later in this chapter, we offer several variations of each, as well as a few other shoulder movements that don't fall into these categories.)

- ✓ **Press:** You straighten your arms up over your head. Shoulder-press exercises work the entire shoulder muscle.
- ✓ **Lateral raise:** You raise your arms out to the sides. Lateral raises focus on the top and outside portions of the muscle.
- ✓ **Front raise:** You raise your arms directly in front of you. Front raises work the front and top of the deltoid.
- ✓ **Back fly:** In a bent-over position, you raise your arms out to the sides, working the rear and outside portions of the muscle.

We suggest performing these exercises in the order that they're listed. In general, you lift the heaviest weights while pressing and the lightest weights while doing back fly movements. You don't need to include all four types of exercises in each shoulder workout, but you should aim to perform each type on a regular basis so that you develop evenly balanced shoulder muscles.



In general, we recommend performing shoulder exercises with free weights instead of machines. We've never met a shoulder machine we really loved, except maybe certain versions of the Shoulder Press machine. Often, the motion feels unnatural and places excess strain on the neck.



As for your rotator cuff muscles: These are mighty susceptible to injury. You can protect them to some degree by using stellar weight lifting form for all upper body exercises. However, you also need to strengthen them with special exercises. In this chapter, we show you two rotator cuff exercises that you can do with dumbbells: internal and external rotation, which are just fancy terms for twisting your shoulder inwards and outwards. See Chapter 27 for nifty rotator cuff exercises that you can do with a rubber exercise band.

## *Mistakes to Avoid when Training Your Shoulders*



For many avid weight lifters, shoulder injuries don't happen overnight. We know countless people who have lifted for years, sometimes ignoring minor shoulder pain and then — pop! — they're finished. Kaput. But what they perceive as a sudden injury is really the result of years of overuse and poor form. Here are some tips to keep your shoulders strong and healthy:

- ✔ **Don't exaggerate the movement.** If we tell you to lift the dumbbell 'to shoulder height', don't lift the weight up to the ceiling.
- ✔ **Don't arch your back.** When you perform shoulder exercises while sitting on a vertical bench, you shouldn't have more than a slight gap between the small of your back and the backrest. Arching your back gives you more leverage to lift heavier weights, but it also puts your lower back in a mighty vulnerable position.
- ✔ **Don't rock back and forth.** When you perform shoulder exercises while standing, relax your knees and maintain a tall posture. Many people lock their knees and lean back, a posture that your lower back muscles don't appreciate. If you're moving any body parts other than your arms, you're using too much weight.
- ✔ **Don't perform behind-the-neck shoulder exercises.** You're likely to see lifters press a barbell overhead and then lower it behind the neck rather than in front. Some shoulder machines also involve behind-the-neck movements. Stay away from these exercises! They require you to severely rotate your arm backwards, placing your shoulder and rotator cuff muscles in a weakened and precarious position. This is not a good time for these muscles to be carrying the burden of added weight. The movement also compresses the top of your arm bone into your shoulder socket, which tends to grind the bones and place your rotators under a great deal of additional stress.





Suzanne, who knows better than to perform these exercises, nevertheless did a set of behind-the-neck shoulder presses while training for a weight lifting competition. The next day she could not reach her left arm backwards without wincing in agony. Nor could she press a measly 2.5 kilogram dumbbell overhead without severe pain. Only after *seven* months of rest and rehab exercises did her rotator cuff injury begin to heal. Suzanne learned her lesson the hard way and now cringes when she sees people at her gym performing the very exercise that ruined her workouts for months on end.

## Exercises in This Chapter

Here's a preview of the shoulder exercises coming up:

- ✓ Seated Supported Dumbbell Shoulder Press
- ✓ Lateral Raise
- ✓ Front Raise
- ✓ Back Delt Fly
- ✓ External and Internal Rotation
- ✓ Shoulder Press Machine

### Seated Supported Dumbbell Shoulder Press



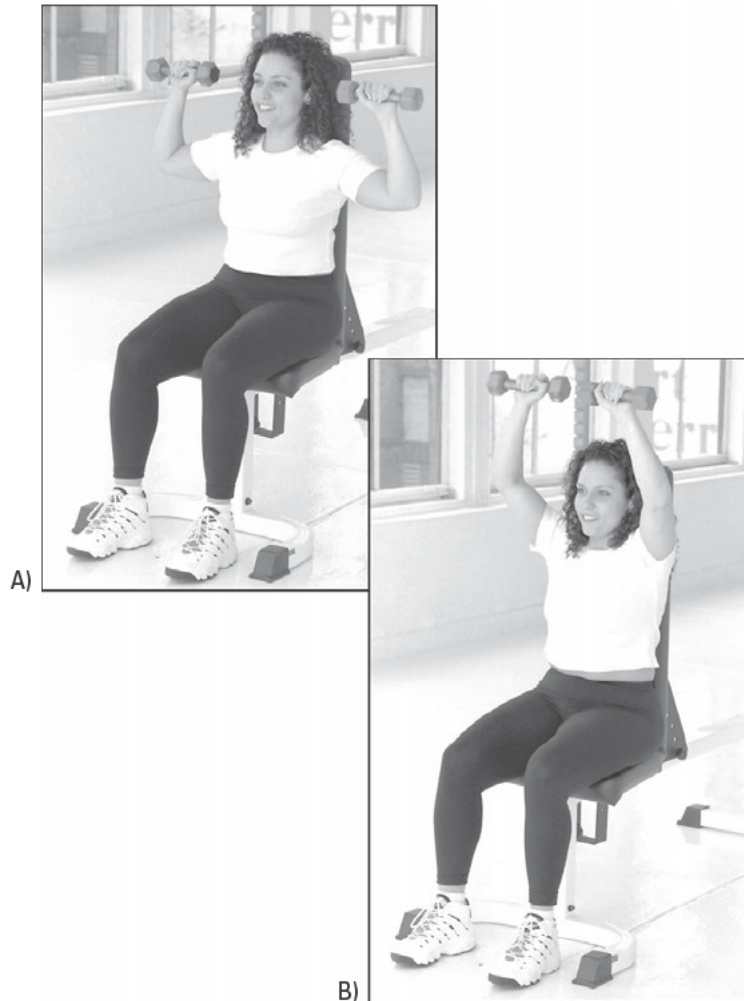
The Seated Supported Dumbbell Shoulder Press targets the top and centre of your shoulder muscles. This exercise also works your upper back and triceps. Use caution if you have **lower back**, **neck** or **elbow** problems.

#### Getting set

Hold a dumbbell in each hand and sit on a bench with back support. Plant your feet firmly on the floor about hip-width apart. Bend your elbows and raise your upper arms to shoulder height so that the dumbbells are at ear level. Pull your abdominals in so that there's a slight gap between the small of your back and the bench. Place the back of your head against the pad. See photo A in Figure 10-2.

#### The exercise

Push the dumbbells up and in until the ends of the dumbbells are nearly touching directly over your head and then lower the dumbbells back to ear level. See photo B in Figure 10-2.



**Figure 10-2:**  
Don't lock  
your elbows  
at the  
top of the  
movement.



### *Do's and don'ts*

- ✓ DO keep your elbows relaxed at the top rather than locking them.
- ✓ DO stop lowering the dumbbells when your elbows are at or slightly below shoulder level.
- ✓ DON'T let your back arch way off the back support.
- ✓ DON'T wiggle or squirm around in an effort to press the weights up.

### *Other options*

**Palms-in Dumbbell Press (Easier):** Do this exercise with your palms facing each other. This position allows your wrists and biceps muscles to help execute the movement.



## Lateral Raise

The Lateral Raise works the centre of your shoulder muscles. Make sure that you use stellar technique if you have **neck** or **lower back** problems.

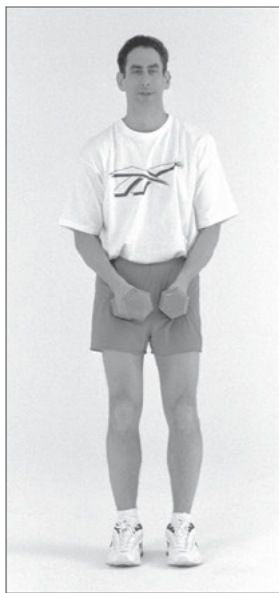
### Getting set

Hold a dumbbell in each hand and stand up tall with your feet as wide as your hips. Bend your elbows a little, turn your palms towards each other, and bring the dumbbells together in front of the tops of your thighs. Pull your abdominals in. See photo A in Figure 10-3.

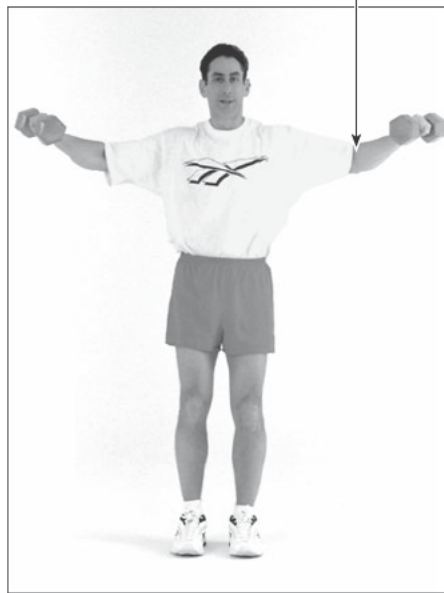
### The exercise

Lift your arms up and out to the side until the dumbbells are just below shoulder height. Slowly lower the weights back down. It may help to imagine that you're pouring two mugs of coffee onto the floor in front of you. See photo B in Figure 10-3.

Keep your  
elbows  
slightly bent.



A)



B)

**Figure 10-3:**  
Don't raise  
the weights  
above  
shoulder  
height.



### *Do's and don'ts*

- ✓ DO lift from the shoulders; in other words, keep your elbows stationary.
- ✓ DON'T arch your back, lean backwards or rock back and forth to lift the weights.
- ✓ DON'T raise the weights above shoulder height.

### *Other options*

**Bent-Arm Lateral Raise (Easier):** If you have weak shoulders or a history of shoulder problems, you can do this exercise with your arms bent at a 90-degree angle. Start with your arms bent, palms facing each other, and the dumbbells in front of your body. Keeping your elbows bent at 90 degrees throughout the motion, lift the weights until your elbows are at shoulder height. This exercise doesn't give your shoulders quite as good a workout as the basic version.

**Seated Lateral Raise:** For a change of pace, do this same exercise sitting on a bench, starting with your arms hanging straight down at your sides, elbows slightly bent.

**Thumbs Up Lateral Raise (Easier):** Do this movement with your palms facing forward and your thumbs pointing upward. This version places the least stress on your rotator cuff muscles and is often used in physical therapy.

## *Front Raise*



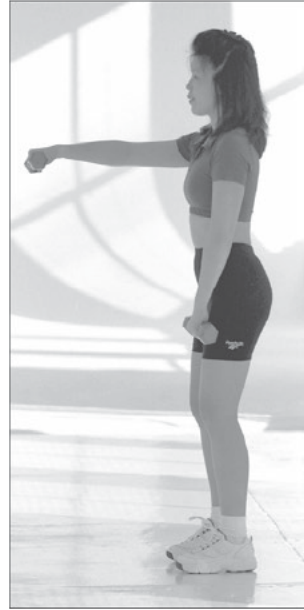
The Front Raise isolates the front portion of your shoulder muscles. Use caution if you have a history of **lower back** or **neck** discomfort.

### *Getting set*

Hold a dumbbell in each hand and stand up tall with your feet as wide as your hips. Let your arms hang down at your sides, elbows relaxed and palms facing back. Stand up tall, pull your abdominals in, and relax your knees. See photo A in Figure 10-4.

### *The exercise*

Raise your right arm up to shoulder height and then lower it back down. Then do the same with your left arm. Continue alternating until you complete the set. Or, for more of a challenge, do all your reps with one arm and then the other. See photo B in Figure 10-4.



**Figure 10-4:**  
Don't lift  
your arm  
above  
shoulder  
height.

A)

B)



### *Do's and don'ts*

- ✓ DO keep your elbows slightly bent as you perform the exercise.
- ✓ DON'T arch, lean back, or wiggle around in an effort to lift the weight.
- ✓ DON'T lift your arm above shoulder height.

### *Other options*

**Palms-up Front Raise:** Turn your palm up and do the exercise exactly as it's described in the basic Front Raise. Try this version if you're prone to shoulder or rotator cuff injuries.

**Diagonal Front Raise (Harder):** When the dumbbell is at shoulder height, move your arm about 5 centimetres in until the weight is in front of the top of your chest. Skip this version if you have chronic shoulder problems.

**Seated Front Raise (Harder):** Do the same exercise sitting on a bench with a back support; this removes *any* possibility of cheating!

**Lying Front Raises (Harder):** Lie on your stomach on a bench holding a dumbbell in each hand, arms straight in front of you (or slightly out to the side), palms facing in and thumbs up. Raise the dumbbells as high as you comfortably can but no higher than shoulder level. You will have to use a much lighter weight for this version of the exercise. You can also incline the bench and do the same exercise.

## *Back Delt Fly*



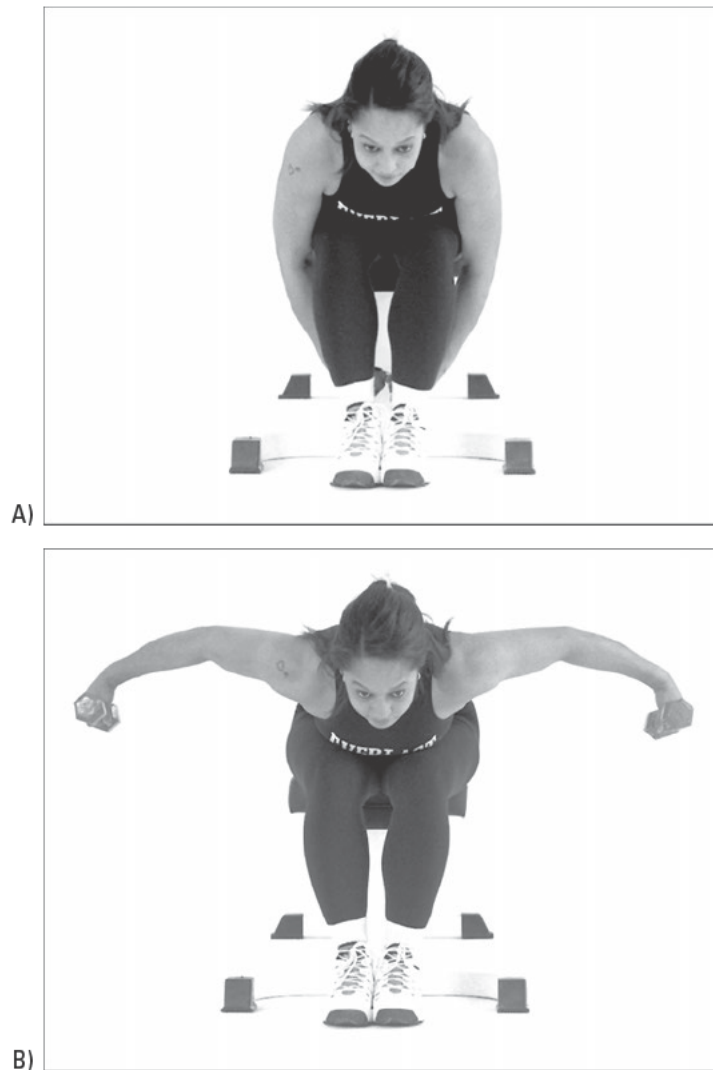
The Back Delt Fly is an excellent move for strengthening the back of the shoulders and upper back and for improving your posture. If you have a history of **neck** pain, try the Cable Back Delt Fly version or skip the exercise altogether.

### *Getting set*

Hold a dumbbell in each hand and sit on the edge of a bench. Lean forward from your hips so that your upper back is flat and above parallel to the floor (if you can, support your chest against your knees). Let your arms hang down so that your palms are facing each other with the weights behind your calves and directly under your knees. Tuck your chin towards your chest and pull your abdominals inwards. See photo A in Figure 10-5.

### *The exercise*

Raise your arms up and out to the sides, bending your elbows 5 to 10 centimetres as you go until your elbows are level with your shoulders. Squeeze your shoulder blades together as you lift. Slowly lower your arms back down. See photo B in Figure 10-5.



**Figure 10-5:**  
Keep the rest of your body still as you perform the exercise.



### *Do's and don'ts*

- ✓ DO keep your chin tilted towards your chest throughout the motion so that your head and neck don't drop forward.
- ✓ DO lean forward from your hips rather than rounding your back.
- ✓ DON'T allow the rest of your body to move as you do the exercise.



### *Other options*

**Back Delt Row:** Use the same starting position except orient your palms backwards. As you lift the weights, you need to bend your elbows more than in the basic version.

**Cable Back Delt Fly:** Set the cable on the setting closest to the floor; hook up a horseshoe handle. Kneel alongside the cable tower and grasp the handle in the hand that's farthest away from the tower. (The cable passes underneath your body.) Squeeze your shoulder blade and lift your arm up to the side, as in the basic version. Do the same number of reps with each arm.

**Standing Back Delt Fly:** Do the same exercise while standing with your feet placed as wide as your hips. Lean forward so that your torso forms a 45 degree angle with the floor. Keep your abs pulled in to protect your lower back and resist any rocking movement.

## *External and Internal Rotation*



Internal and External Rotation focus on your rotator cuff muscles, but these exercises also work your shoulder muscles. If these movements bother your neck, try resting your head on your outstretched arm.

### *External Rotation*

Holding a dumbbell in your right hand, lie on the floor on your left side. Bend your right elbow to a 90 degree angle and tuck it firmly against your side so that your palm is facing downward. Pull your abdominals in. Bend your left elbow and rest the side of your head in your left hand or lie on your outstretched left arm.

Keeping your right elbow glued to your side, raise your right hand as far as you comfortably can (the distance depends on your flexibility). Slowly lower the weight back towards the floor.

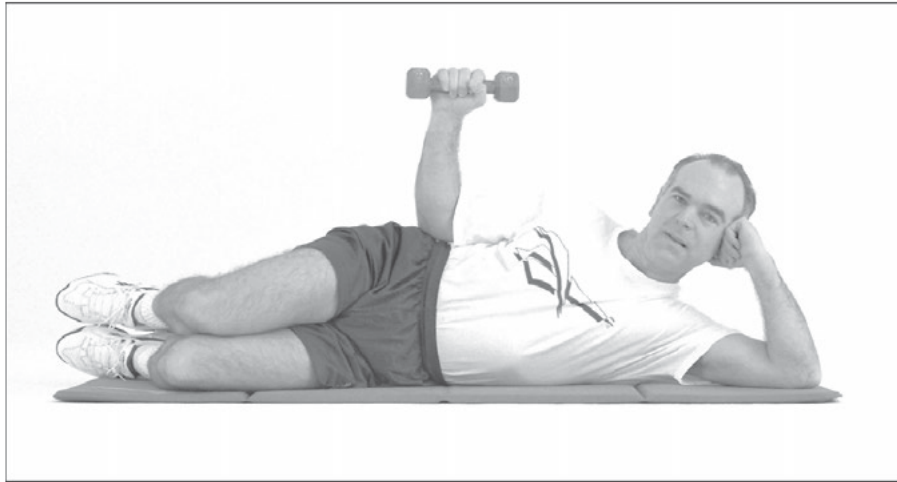
Figure 10-6 shows the External Rotation.



### *Internal Rotation*

After you've completed all the External Rotation repetitions, switch the weight to your left hand and lie on your back. Bend your elbow so that your forearm is perpendicular to the floor and your palm is facing forward. Lower your hand down to the floor as much as your flexibility permits, and then lift back up. For both exercises, complete an equal number of repetitions with each arm. Figure 10-7 illustrates the Internal Rotation.

**Figure 10-6:**  
External  
Rotation.  
Imagine  
that your  
shoulder is  
the hinge of  
a door that's  
opening and  
closing.



**Figure 10-7:**  
Internal  
Rotation.  
Perform this  
exercise  
gently,  
without  
throwing the  
weight up.





### *Do's and don'ts*

- ✓ DO imagine that your shoulder is the hinge of a door that's opening and closing.
- ✓ DON'T tighten up your neck and face.
- ✓ DON'T throw the weight up. Do both exercises gently and don't force the weight further than your natural flexibility allows.

### *Other options*

**Band Internal/External Rotation:** See Chapter 27 for a version of these exercises that you can do with exercise bands.

**Traffic Cop (Harder):** Hold a weight in both hands and stand with your feet as wide as your hips. Bend your elbows and raise your arms up to shoulder height (in the classic stick-em-up position). Keeping your elbows still, rotate your forearms down until your palms are facing behind you and then rotate back up to the start.

## *Shoulder Press machine*



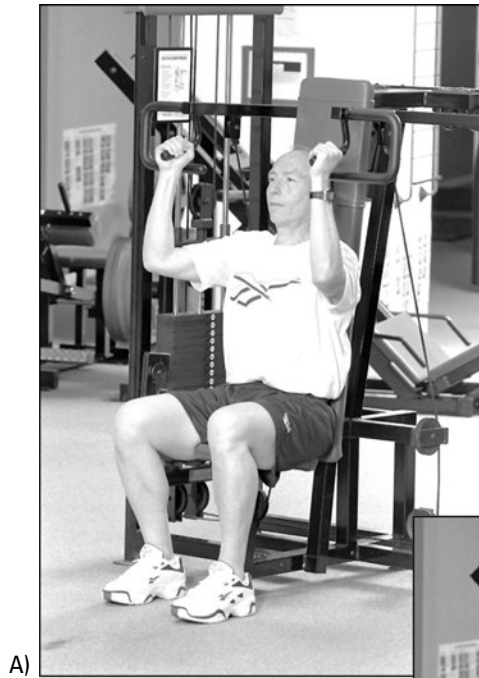
The Shoulder Press machine is a good overall shoulder exercise. It also works your triceps and upper back. Take extra caution if you're prone to **neck, elbow or lower back** problems.

### *Getting set*

Set your seat height so that the machine's pulley is even with the middle of your shoulder. Hold onto each of the front handles. (Your palms are facing each other.) Pull your abdominals in tight but leave a slight, natural gap between the small of your back and the seat pad. See photo A of Figure 10-8.

### *The exercise*

Press the handles up without locking your elbows. Lower your arms until your elbows are slightly lower than your shoulders. See photo B in Figure 10-8.



A)



B)

**Figure 10-8:**  
Don't arch  
your back  
or wiggle  
around in an  
effort to lift  
the weight.



### *Do's and don'ts*

- ✓ DO relax your shoulders and keep them well below your ears, especially while your arms are fully straightened.
- ✓ DON'T arch your back or wiggle around in an effort to lift the weight.
- ✓ DON'T thrust upwards with more force than necessary; this puts a lot of stress on your elbows.

### *Other options*

Many shoulder machines have arms that work 'independently' of each other. That is, the left and right sides aren't connected so that each arm is responsible for handling its own share of the load. If your gym has this option, we recommend that you give it a try. You'll get the structure and support that a machine has to offer but also develop balance and uniform strength as you would with free weights.

## Chapter 11

# Working Your Arms

### *In This Chapter*

- ▶ Understanding your biceps, triceps and wrist muscles
- ▶ Finding out why you need strong arms
- ▶ Getting a great arm workout
- ▶ Avoiding mistakes when training your arms
- ▶ Sampling some arm exercises

**T** rue story: Liz once met a woman who was forced to join a gym because of her new hairstyle. She explained that her ‘personal hair manager’ had changed her blow-drying method to one that required more bending and straightening of the arms. ‘I couldn’t believe how weak my arms were,’ she told Liz. ‘I had to start lifting weights so my hair would look good.’ Even if your hairstyle doesn’t depend on your arm strength, plenty of other aspects of your life do. In this chapter, we explain how you can develop strong, firm arms.

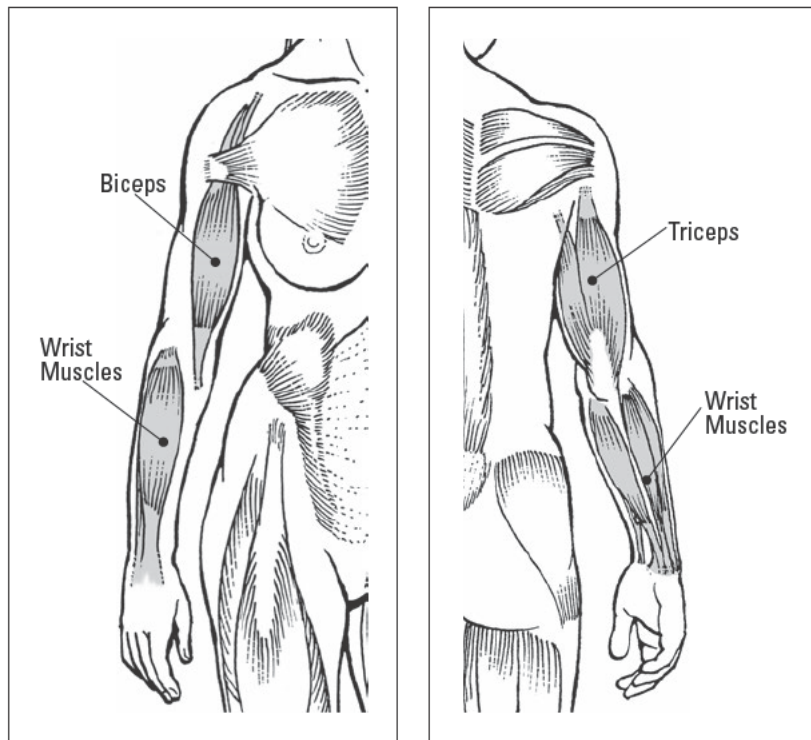
## *Arm Muscle Basics*

Your *biceps* muscle spans the front of your upper arm. Hang out in any gym and you’ll see people flexing these muscles in the mirror, usually when they think that nobody’s watching. The main job of your biceps (nicknamed your *bis* or your *guns*) is to bend your arm; in gymspeak, this motion is called *curling* or *flexing*.

Your *triceps*, located directly opposite your biceps, span the rear of your upper arm. Think of the biceps and triceps as the Labor and Liberal parties. The biceps are always trying to bend the arm, while the triceps want to straighten it. This may be a contentious relationship, but it’s a pretty good deal for you. If you had a choice of only one of these actions, you could scratch your head but not your knee, or vice versa.

Another group of arm muscles allow your wrists to move in a variety of ways. To spare you some jargon, we're going to refer to these as your *wrist muscles*. These muscles let you bend your wrist up, arch it down, twirl it in a circle, tilt it left and right and turn your palm up or down.

One of the most important jobs of the wrist muscles is not to move at all. If your wrists are weak, they can bend at inopportune times, like when you're holding a 50 kilogram barbell over your chest. Weak wrists also mean that you can't get a grip — on a cricket bat, a stubborn weed, or a can of mushroom soup. Figure 11-1 helps you locate your arm muscles.



**Figure 11-1:**  
Your arm  
muscles.

## Why You Need Strong Arms

Because we use our arms so often in daily life, we tend to take our arm muscles for granted. However, giving these muscles extra attention in the weight room really does pay off.

- ✓ **Real-life benefits:** Your arms are the link between your upper body and the rest of the world. If your arms are wimpy, your larger, upper body muscles can't work to full capacity. For example, the Lat Pulldown, a back exercise described in Chapter 8, mainly requires back strength, but weak biceps would sorely limit your ability to do this exercise.

With stronger triceps, you can perform better on chest exercises such as the Push-up or the Bench Press. Strong wrists are crucial for many weight lifting exercises and for gripping a golf club, shelling peanuts, shuffling cards or waving to your adoring public.

- ✓ **Injury prevention:** Strong arms help protect your elbows from harm. Carry around a heavy briefcase with a straight arm long enough and eventually your elbow starts to ache. With stronger arm muscles, you can haul that briefcase around longer without pain, and you're less likely to get tennis elbow.

Powerful arms also minimise your chances of getting sore or injured when you perform weight lifting exercises or when you lift a dumbbell, barbell or weight plate off of a rack.

Strong wrists, in particular, help you avoid *carpal tunnel syndrome*, an inflammation of your wrist nerves. This painful and sometimes debilitating condition is caused by repetitive movements such as typing, scanning items at the grocery checkout, or operating the mouse of your computer.

- ✓ **The 'feel good' factor:** Would our nation love Anthony 'the Man' Mundine if his biceps were not threatening to burst the seams of his shirt at any moment? Would we have swooned over former Wallaby captain Stirling Mortlock if he'd sported skinny sticks in place of his great guns? We think not.

And lately, the arms of many female stars have been getting equal billing. All of TV's female *Home and Away* stars sport defined arms, which they seem to show off at every opportunity. And Michelle Obama's arms get almost as much press as her presidential husband does! If you want to go sleeveless in Sydney, or anywhere else for that matter, having toned arms can impress your friends and intimidate your touch football opponents.

## *Keys to a Great Arm Workout*

Your arm muscles are smaller than your chest, back and shoulder muscles, so you can spend less time training them and still get great results. If your goal is to increase your arm strength and develop some tone, one to three sets per arm muscle will suffice. You need to do five to eight sets per arm muscle if you want to develop maximum strength and significant size.

Give your biceps and triceps equal time. If one of these muscle groups is disproportionately stronger than the other, you're more prone to elbow injuries. Chances are, you'll enjoy training one of these muscle groups better than the other. For example, the three of us tend to get bored training our biceps. No matter how you slice 'em, these exercises involve bending and then straightening your arms. On the other hand, we have lots of fun training our triceps. Of course this is kind of odd considering that working your triceps involves a movement that, on paper, is no more thrilling: straightening and then bending. Oh well, the psychology of weight training cannot always be explained. If you do prefer training one of these muscle groups over the other, work your least favourite group first so that you're not tempted to slack off. If you do some of the split routines we describe in Chapter 17, you can work these muscle groups on different days.

Always work your arm muscles last in your upper body workouts. Otherwise, they may be too tired to help out when you do the big-money exercises for your much larger chest and back muscles. Your wrists should be the last upper body muscle you work before hitting the showers.

## *Mistakes to Avoid When Training Your Arms*

Some people use such herky-jerky form when they perform arm exercises that they look like people dancing under a strobe light. Keep the following tips in mind when training your arms:

- ✓ **Don't cheat.** If you contort your whole body to lift the weight, you'll be working your whole body, not your arms. Rocking back and forth is also a great way to throw out your lower back. Think about how you'll feel explaining to your friends that you wrenched your back while exercising your arms.
- ✓ **Go easy on the elbows.** In exercise captions throughout this chapter, we tell you to straighten your arms, but this doesn't mean snapping your elbows into a fully straightened position.



- ✔ **Keep your elbows still.** When your elbows veer out to the side during many biceps and triceps exercises, you're able to lift more weight. However, this is only because you have more leverage; your arms won't get any stronger. When you're doing biceps exercises such as the Dumbbell Bicep Curl, you may also have a tendency to pull your arms and elbows forward to lift the weight. You can't avoid this extra movement completely, but keep it to a minimum.
- ✔ **Don't skip your wrists.** Few people pine away for forearms the size of Popeye's. However, as we explain in the 'Why You Need Strong Arms' section of this chapter, you will go far in life with well-developed wrist muscles.

## Exercises in This Chapter

Here's a list of the exercises for strengthening your arms:

- ✔ **Biceps exercises:** Barbell Bicep Curl, Dumbbell Bicep Curl, Concentration Curl and Arm Curl machine
- ✔ **Triceps exercises:** Triceps Pushdown, Triceps Kickback, Bench Dip and Assisted Dip
- ✔ **Wrist exercises:** Wrist Curl and Reverse Wrist Curl

### Barbell Bicep Curl



The Barbell Bicep Curl targets your biceps. Be especially careful if you have **elbow** problems. If you have **lower back** problems, you may want to choose a seated bicep exercise instead.

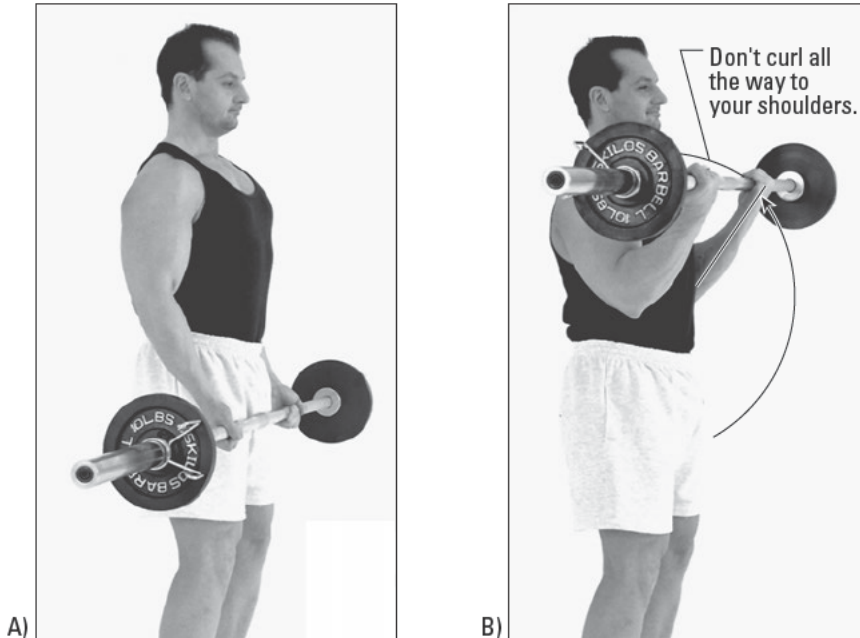
#### Getting set

Hold a barbell with an underhand grip and your hands about shoulder-width apart. Stand with your feet as wide as your hips and let your arms hang down so that the bar is in front of your thighs. Stand up tall with your abdominals pulled in and knees relaxed. See photo A of Figure 11-2.

#### The exercise

Bend your arms to curl the bar *almost* up to your shoulders, and then slowly lower the bar *almost* to the starting position. See photo B of Figure 11-2.

**Figure 11-2:**  
Don't rock  
back and  
forth to lift  
the weight.



### *Do's and don'ts*

- ✓ DO keep your knees relaxed. This will protect your lower back.
- ✓ DON'T rock back and forth or lean way back to lift the weight. If you need to do that, you should be arrested for using too much weight.
- ✓ DON'T just straighten your arms and let the bar drop down to your thighs like a sack of rocks. Instead, lower the bar slowly to get the most muscle power from the exercise and to protect your elbows. And don't lower the bar all the way back down because you'll lose tension on the muscle.

### *Other options*

**Reverse-grip Bicep Curl (Harder):** Do the basic version holding the bar with an overhand grip. You feel this exercise more in your wrists. (**Hint:** Use a lighter weight for this version.)

**Cable Bicep Curl:** Place the cable on the setting closest to the floor and attach a short or long straight bar. Hold the bar with an underhand grip and stand about half a metre away from the cable tower. Curl the weight up and down exactly as in the basic version.

**Double Bicep Curl:** Hold a dumbbell in each hand with your palms facing up, elbows resting lightly against your sides, arms hanging down. Curl the dumbbells up and down together as if they were a barbell.



## Dumbbell Bicep Curl

The Dumbbell Bicep Curl focuses on your biceps. Use caution if you have **lower back** or **elbow** problems.

### Getting set

Hold a dumbbell in each hand and stand with your feet as wide as your hips. Let your arms hang down at your sides with your palms facing in. Pull your abdominals in, stand tall and keep your knees relaxed. See photo A of Figure 11-3.

### The exercise

Curl your right arm close to your shoulder, twisting your palm as you go so that it faces the front of your shoulder at the top of the movement. Slowly lower the dumbbell back down, and then repeat with your left arm. Continue alternating until you've completed the set. See photo B of Figure 11-3.



A)



B)

**Figure 11-3:**  
Keep your  
elbows  
close to  
your body  
throughout  
the  
exercise.



### *Do's and don'ts*

- ✓ DO keep your knees relaxed and your posture tall. This will prevent you from swinging your body forward and back to help move the weight.
- ✓ DON'T swing your elbows out wide as you bend your arm to raise the weight. Keep your elbows close to your body *without* supporting them on the sides of your stomach for leverage.
- ✓ DON'T just let the weight fall back to the starting position. Lower it slowly and with control.

### *Other options*

**Hammer Curl:** Instead of twisting the dumbbell as you curl your arm, keep your palms facing in throughout the motion. Imagine that you're pounding nails into a board with two large hammers. This version of the exercise puts more emphasis on your forearm muscles, as well as some of the muscles that reside underneath the biceps.

**Zottman Curl:** As you curl your arm upwards, rotate your palm in towards your body and bring it up and across to the opposite shoulder. This version of the dumbbell curl is slightly harder than the basic version.

**Seated Biceps Curl:** If you find yourself cheating too much even with light weights, try sitting on a bench or a chair.

## *Concentration Curl*



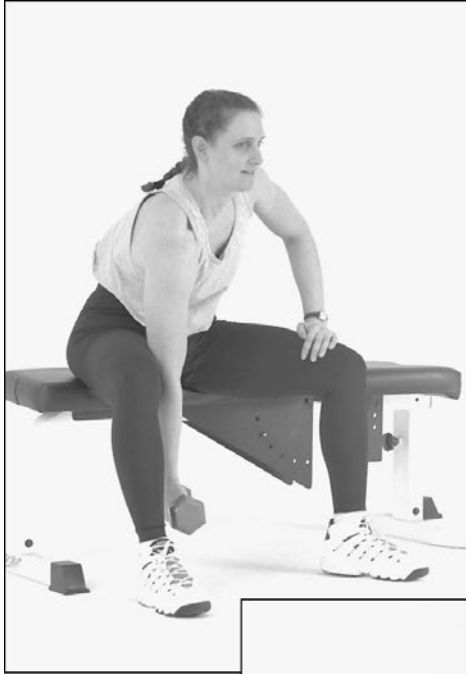
The Concentration Curl is especially good for targeting your biceps to the exclusion of all other muscles. Be careful if you've had **elbow** injuries or are prone to **lower back** discomfort.

### *Getting set*

Hold a dumbbell in your right hand and sit on the edge of a bench or a chair with your feet 5 to 10 centimetres wider than your hips. Lean forward from your hips and place your right elbow against the inside of your right thigh, just behind your knee. The weight should hang down near the inside of your ankle. Place your left palm on top of your left thigh. See photo A of Figure 11-4.

### *The exercise*

Bend your arm and curl the dumbbell almost up to your shoulder, and then straighten your arm to lower the weight back down. See photo B of Figure 11-4.



A)



B)

**Figure 11-4:**  
Bend forward from your hips rather than round your lower back.



### *Do's and don'ts*

- ✓ DO bend forward from your hips rather than rounding your lower back to lean forward.
- ✓ DON'T lean away from your arm as you lift the weight up to help get better leverage. (Hey, that's cheating!)

### *Other options*

**Slant Biceps Curl:** Sit on a bench with the back inclined a few inches. Lean back and curl the weight up. You can do this one hand at a time or with both hands together, and with a twist as you curl upwards or without a twist.

**Standing Concentration Curl:** Hold a dumbbell in one hand. Stand alongside a flat bench, lean over and place your other hand on top of bench. Let the arm holding the weight hang straight down to the floor. Bend your elbow so that the weight moves up and in towards your armpit, and then slowly lower it back down.

## *Arm Curl machine*



The Arm Curl machine focuses on your biceps. Be careful if you've had **elbow** injuries.

### *Getting set*

Adjust the seat so that when you sit down and extend your arms straight out, they are level with your shoulders and your elbows are lined up with the moving hinge or pulley of the machine. Sit down and grasp a handle in each hand with an underhand grip. See photo A in Figure 11-5.

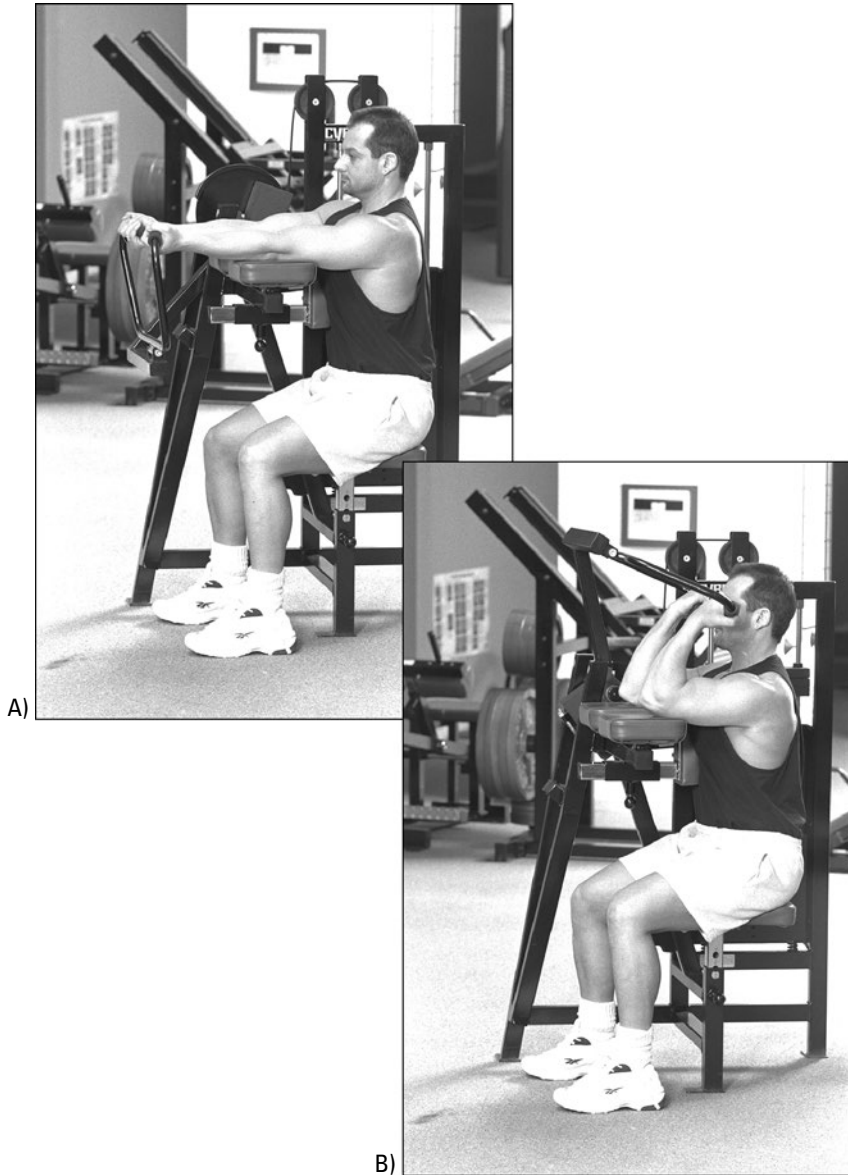
### *The exercise*

Bend your elbows and pull the handles until they are just above your shoulders, and then slowly lower the handles back down. See photo B of Figure 11-5.

### *Do's and don'ts*



- ✓ DO make sure you set the seat height correctly. If you set the seat too low, you'll have trouble bending your arms and may place too much strain on your elbows.
- ✓ DO sit up tall and make an effort to pull exclusively with your arms as opposed to hunching up your shoulders or leaning back.
- ✓ DON'T use a chest pad, if there is one, to help haul the weight. Use it for a light support only.



**Figure 11-5:**  
Don't hunch your shoulders as you pull the machine handles.



### *Other options*

Some gyms have Arm Curl machines that do a fair job of mimicking dumbbell work: The two sides are not connected so each arm has to do the work of lifting the weight. This type of machine is a good substitute or supplement for free weight work.

## *Triceps Pushdown*



The Triceps Pushdown targets your triceps. Pay special attention to your form if you have **elbow** problems. Standing up straight with your abdominal muscles pulled in will help you avoid **lower back** problems.

### *Getting set*

Set the pulley of the cable at the topmost setting and attach a straight or U-shaped bar. Grasp the bar with your palms facing down and your hands about a thumb's distance from the center of the bar. You can stand either with your feet parallel or with one foot slightly in front of the other. Bend your elbows so that your forearms are parallel to the floor and your elbows are alongside your waist. You can lean *slightly* forward at the hips, but keep your abdominals pulled in and your knees relaxed. See photo A of Figure 11-6.

### *The exercise*

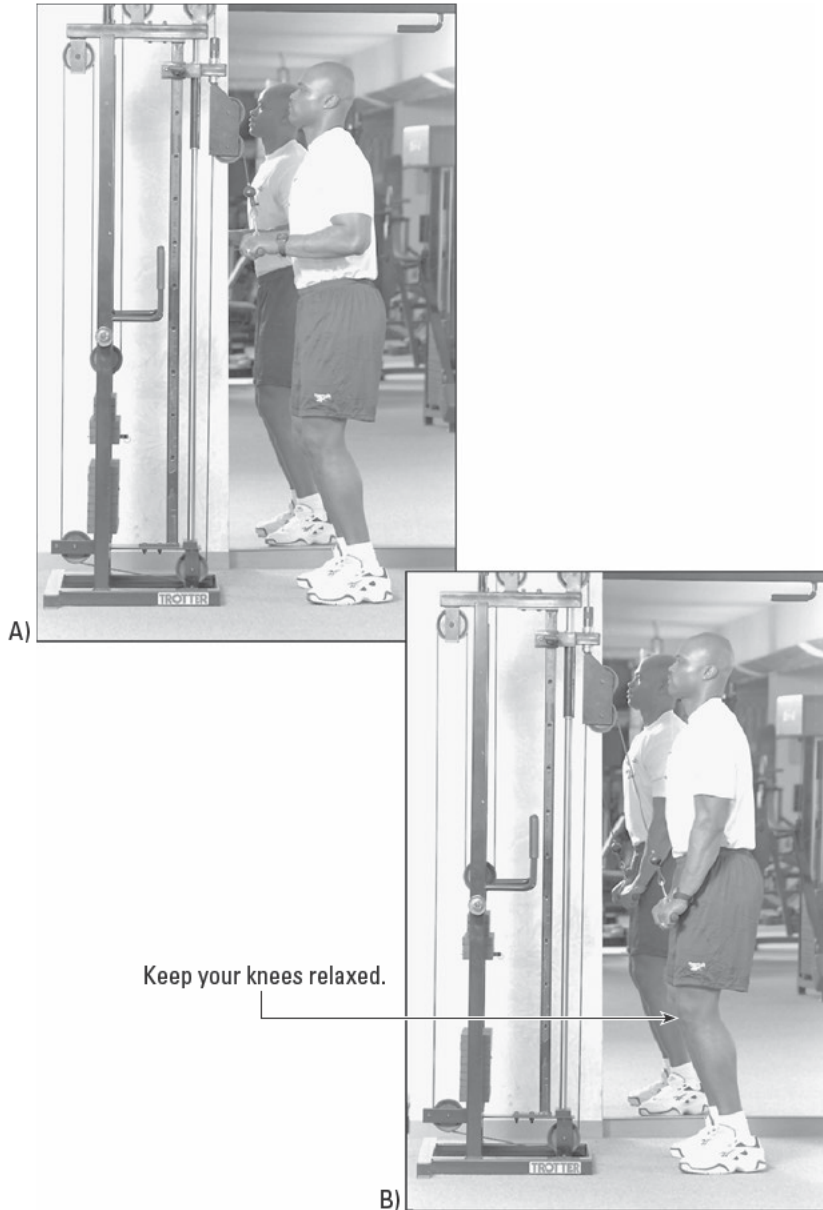
Push the bar straight down, keeping your elbows close to your sides. Then bend your arms to allow the bar to slowly rise until your arms are slightly above parallel to the ground. See photo B of Figure 11-6.



### *Do's and don'ts*

- ✓ DO push down smoothly, exerting the same amount of pressure with both hands so that both sides of the bar travel down evenly.
- ✓ DON'T lean too far forward or too heavily on the bar.
- ✓ DON'T allow your elbows to splay out to the sides, especially as you push down.
- ✓ DON'T let your arms fly back up as you return the bar to the starting position. Do concentrate on controlling the bar.





**Figure 11-6:**  
Don't let  
your elbows  
splay out to  
the sides as  
you push  
down.

### *Other options*

**Reverse Grip Pushdown (Easier):** Turn your hands around and use an underhand grip. Since this version allows your biceps to assist your triceps a great deal, it is less challenging than the basic version.

**One-hand Triceps Pushdown:** Attach the horseshoe and grasp it with one hand in an underhand grip. (You can also use an overhand grip, but it's tougher.) Place your other hand on your hip. Straighten your arm, pushing the handle until it is alongside your hip. Then slowly raise the handle back up.

**Rope Attachment (Harder):** Use the rope attachment, and move your hands 5 to 10 centimetres apart as you press the rope down. You may need to use less weight with the rope than you do with a bar.

## Triceps Kickback



The Triceps Kickback works your triceps. Use caution if you have **elbow** or **lower back** problems.

### Getting set

Hold a dumbbell in your right hand and stand next to the long side of your bench. Lean forward at the hips until your upper body is at a 45 degree angle to the floor, and place your free hand on top of the bench for support. Bend your right elbow so that your upper arm is parallel to the floor, your forearm is perpendicular to it, and your palm faces in. Keep your elbow close to your waist. Pull your abdominals in and relax your knees. See photo A of Figure 11-7.

### The exercise

Keeping your upper arm still, straighten your arm behind you until the end of the dumbbell is pointing down. Slowly bend your arm to lower the weight. When you've completed the set, repeat with your left arm. See photo B of Figure 11-7.



### Do's and don'ts

- ✓ DO keep your abdominals pulled in and your knees relaxed to protect your lower back.
- ✓ DON'T lock your elbow at the top of the movement; do straighten your arm but keep your elbow relaxed.
- ✓ DON'T allow your upper arm to move or your shoulder to drop below waist level.

**Figure 11-7:**  
Don't let  
your upper  
arm move  
or your  
shoulder  
drop below  
waist level.



### *Other options*

**Cable Triceps Kickback:** Put the pulley on the topmost setting and attach a horseshoe handle. Grasping the handle in one hand, position yourself in the same way described in the Triceps kickback, and perform the same exercise. You may have to step a half to one metre away from the cable tower to prevent the cable from going slack.

**Triceps Kickback with a Twist (Harder):** As you straighten your arm, twist it so that at the top of the movement, your palm faces up.

## *Bench Dip*



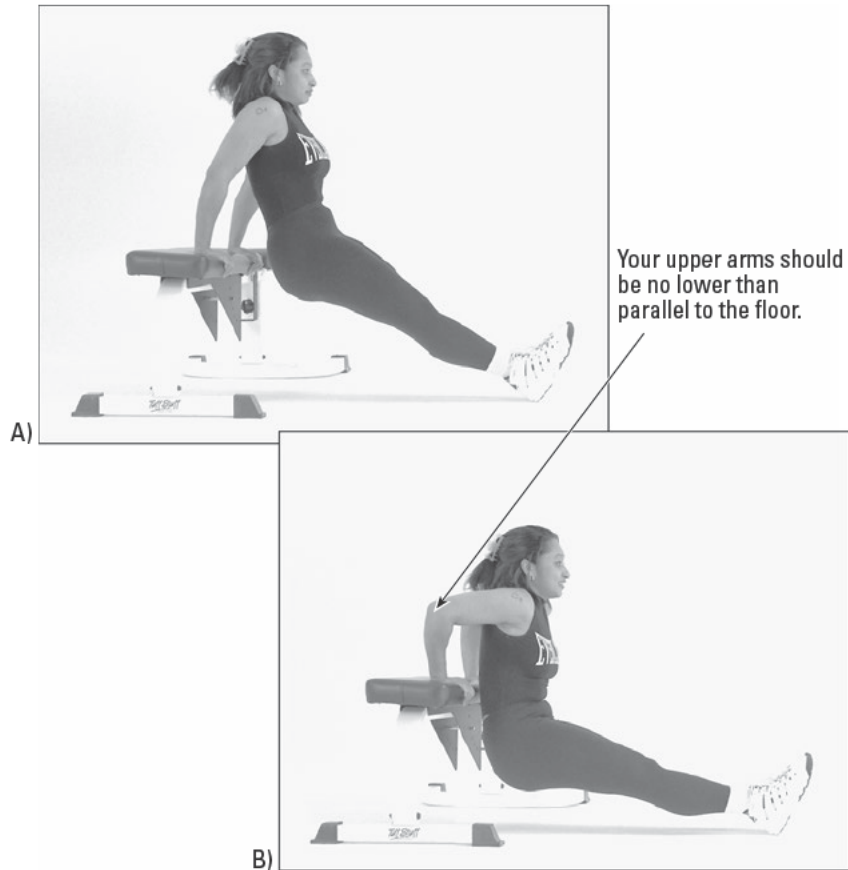
The Bench Dip is one of the few triceps exercises that strengthens other muscles, too — in this case, the shoulders and chest. Be careful if you have **wrist, elbow or shoulder** problems.

**Getting set**

Sit on the edge of a bench with your legs together and straight in front of you, toes pointing up. Keeping your elbows relaxed, straighten your arms, place your hands so that you can grip the underside of the bench on either side of your hips and slide your butt just off the front of the bench so that your upper body is pointing straight down. Keep your abdominals pulled in and your head centred between your shoulders. See photo A of Figure 11-8.

**The exercise**

Bend your elbows and lower your body in a straight line. When your upper arms are parallel to the floor, push yourself back up. See photo B of Figure 11-8.



**Figure 11-8:**  
Don't lower yourself past the point at which your upper arms are parallel to the floor.



### *Do's and don'ts*

- ✓ DO try to keep your wrists straight rather than bent backwards.
- ✓ DO keep hips and back (as you lower) close to the bench throughout the motion.
- ✓ DON'T simply thrust your hips up and down, a common mistake among beginners. Make sure your elbows are moving.
- ✓ DON'T lower yourself past the point at which your upper arms are parallel to the floor.

### *Other options*

**Bent-leg Bench Dip (Easier):** Rather than extending your legs out in front of you, bend your knees at a right angle so you're positioned as if you're sitting in a chair.

**Feet-up Bench Dip (Harder):** Place your feet on another chair of equal height. Or, for an even tougher version, place a weight plate or dumbbell on your lap.

## *Assisted Dip*



The Assisted Dip primarily works your tricep muscles, with a lot of emphasis on your shoulders and chest, too. Use caution if you have **elbow**, **shoulder** or **lower back** problems.

### *Getting set*

For this exercise, deciding which plate to put the pin in can be confusing because you follow the exact opposite rule of every other exercise. In this case, you choose *more* plates if you want the exercise to be *easier* and fewer plates if you want the exercise to be harder. The more plates you select, the more your weight is counterbalanced during the exercise. For example, if you weigh 75 kilograms and you place the pin in the plate marked 50, you have to lift only 25 kilograms of your body weight. But if you put the pin into the plate marked 25, you have to lift 50 kilograms.

Once you've set your weight, step onto the platform of the Assisted Dip machine, and then carefully kneel onto the knee pad. Grip the lower bars with your palms facing inwards, and straighten your arms. Pull your abdominals in and keep your body tall. See photo A in Figure 11-9.

***The exercise***

Lower your body until your upper arms are parallel to the floor and then push back up. See photo B in Figure 11-9.



A)



B)

---

**Figure 11-9:**

Don't  
explode  
back to the  
start and  
snap your  
elbows.

---



### *Do's and don'ts*

- ✓ DO relax your shoulders so they don't hunch up by your ears.
- ✓ DON'T explode back to the start and snap your elbows.
- ✓ DON'T lower your body further than the point at which your upper arms are parallel to the floor.

### *Other options*

**Negative-only Dip (Easier):** If you find a traditional dip (shown in Chapter 15) too difficult, perform only the *negative* phase: Use your muscle power to lower yourself and then jump up to the start after every repetition. However, when you jump up, take it easy on your elbows.

Check out Chapter 15 for more advanced versions of this exercise.

## *Wrist Curl and Reverse Wrist Curl*



The Wrist Curl and Reverse Wrist Curl are great for strengthening your wrist muscles. But be careful if you've had **wrist** or **elbow** problems.

### *Wrist Curl*

Hold a weight in your right hand with an underhand grip and sit on the edge of your bench with your knees as wide as your hips. Lean slightly forward and place your entire forearm on top of your thigh so that your hand hangs over the edge of your knee. Clasp your left palm over your wrist to hold it steady. Curl your wrist up so that the dumbbell moves towards your forearm, and then lower the weight back down. See photo A of Figure 11-10.

### *Reverse Wrist Curl*

Turn your palm down and, again, secure your wrist in place with your other hand. Bend your wrist up to raise the dumbbell to thigh height, and then lower the weight back down. **Hint:** You may need slightly less weight to do the Reverse Wrist Curl. See photo B of Figure 11-10.



### *Do's and don'ts*

- ✓ DO curl straight up; try to avoid moving the weight to the side.
- ✓ DON'T let your forearm lift off your thigh.

### *Other options*

**Modified Wrist Curl:** If you have very weak wrists and find this exercise difficult, simply move the weight up and down a shorter distance.

**Wrist-and-finger Curl (Harder):** At the bottom of the wrist curl, roll the weight down to the tips of your fingers and then roll it back before curling the weight up. This is an excellent exercise for typists or others who use their hands a lot.



**Figure 11-10:**  
Don't let  
your forearm  
lift off your  
thigh.



## Chapter 12

# Working Your Abdominals

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### *In This Chapter*

- ▶ Introducing your abs
  - ▶ Understanding why you need strong abdominals
  - ▶ Debunking myths about abdominal training
  - ▶ Avoiding classic mistakes when training your abs
  - ▶ Sampling some exercises for your abs
- 

**W**e were pretty happy a few years back when the market for abdominal gizmos went flabby. After spending millions of dollars on the AbFlex, AbTrainer and their two dozen inbred cousins, the public finally seemed to have tired of these gizmos. We thought this was great news — that the public finally saw through the misleading slogans like ‘Go from flab to abs!’ and ‘Get a flat stomach before you know it!’

But it seems we were wrong. Australians and New Zealanders may have stopped buying these products like crazy, but many people are still buying into the notion that abdominal exercises can melt the fat off of your midsection. Walk into any gym, and you’ll still hear people saying things like, ‘I have been doing 100 abdominal crunches a day for two months and my belly isn’t dropping any centimetres. What’s wrong with me?’

In this chapter, we explain why there’s nothing wrong with you. It’s just that abdominal exercises are *not* an effective way to shrink your midsection. And then we explain why it’s important to train your abdominals anyway.

## *Abdominal Muscle Basics*



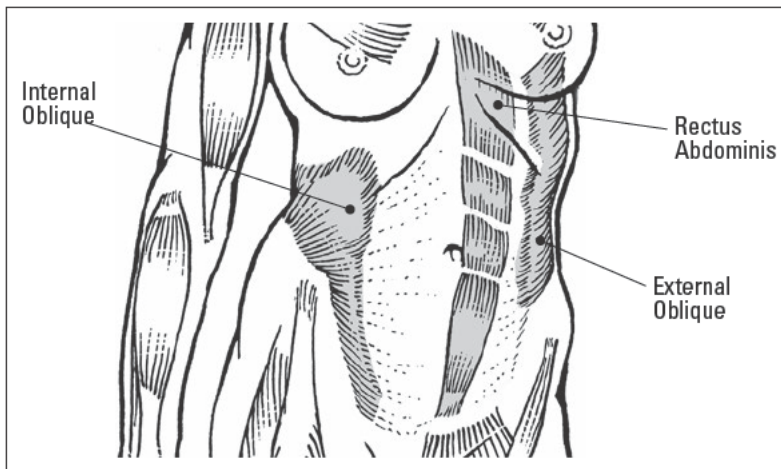
You have four abdominal muscles. At this point, every household in Australia and New Zealand probably knows that these muscles are collectively referred to as the abs. Your largest abdominal muscle is the *rectus abdominis*. This is a wide, flat sheet of muscle that runs down your

middle, from your lower chest to a few inches below your belly button. The rectus abdominis curls your spine forward, like when you do the Crunch or when you double over with laughter from watching *Funniest Home Videos*. This muscle also keeps your spine still when you move other parts of your body, such as when you lift a heavy box off the floor.

Your internal and external *obliques* run diagonally up and down your sides. In addition to helping your rectus abdominis curl your spine forward, your obliques enable you to twist and bend to the side. Because the fibres of your oblique muscles are interwoven and wrap all the way around the sides of your middle, they provide a lot of lower back support.

The *transversus abdominis*, which sits directly beneath the rectus abdominis, is the deepest of all your abdominal muscles. This muscle isn't responsible for any type of movement per se, but you use it whenever you exhale forcefully, cough or sneeze.

This chapter features exercises that emphasise the rectus abdominis and the obliques. You don't need to specifically target your transversus abdominis, but you can strengthen this muscle by pulling your abs inward and exhaling strongly as you perform exercises for your rectus and obliques. Figure 12-1 gives you a view of your abdominal muscles.



**Figure 12-1:**  
These are  
your main  
abdominal  
muscles.

## Why You Need Strong Abdominals

Abdominal exercises won't zap the fat around your midsection, but these exercises can serve you in many other important ways.

- ✓ **Real-life benefits:** Your abs play a crucial behind-the-scenes role in your daily life, supporting your spine in all sorts of movements. For instance, as you're sitting here reading this book, you probably think your abs have very little to do. In fact, they're the reason you can sit up straight in your chair, as opposed to oozing off the edge like a blob of jelly. Your abs are even more important when your movements are more complicated. Strong abs also enable you to stand in line or shovel dirt in your garden for a lot longer without getting a backache.
- ✓ **Injury prevention:** Most back pain could be reduced — perhaps even eliminated — by strengthening the abdominal muscles along with your core (see Chapter 13) and lower back muscles. All of your abdominals, but especially your obliques, support and move your spine. When your abs are weak, they sag forward, throwing your lower back off kilter.
- ✓ **The 'feel good' factor:** You'll be happy to know that ab exercises can improve your appearance by improving your posture. When you have weak abs, your back arches and your stomach area pokes out. By strengthening your abs, you can reduce this arch; when you stand up straighter, your abdominal area appears flatter — although how flat depends on how much fat is obstructing the view.

## Strategies for a Great Abdominal Workout

To design an effective abdominal program, you need to separate the hype from the truth. So forget everything you may have learned from TV infomercials. Here we debunk the remarkably persistent myths about abdominal training.

**Myth #1: Doing abdominal exercises will get rid of the blubber around your middle.**



**Reality:** Ab exercises cannot help you 'go from flab to abs', as the infomercials claim, because flab and abs are separate entities. Abdominal exercises strengthen and tone your abs, but you won't notice the results until you reduce the layer of flab on top. Abdominal exercises contribute

nothing toward this goal: Spot reducing is a fantasy. The only way to lose your gut is to eat less and exercise more, a strategy that reduces your overall body fat. However, even then you have no guarantee that you will lose the fat from your middle.

**Myth #2: Everyone can develop washboard abs if they try hard enough.**



**Reality:** Even if you make it your life's mission to eat a low-fat diet, spend hours a day on the StairMaster, and perform abdominal exercises to utter perfection, you *still* may not develop that rippled look unless your body is genetically programmed to carry almost no fat in the abdominal area. And very few of us are built that way.

**Myth #3: For best results, you should do several hundred repetitions of abdominal exercises.**



**Reality:** Treat your abs like any other muscle group; in other words, perform 8 to 15 repetitions per set. If you can do more than this, you are either doing the exercise incorrectly or you are performing an exercise that's too easy for you. Either way, you're not doing your abs much good.

**Myth #4: You need to work your abs every day.**



**Reality:** Again, your abdominals are like every other muscle group. They respond best to hard work followed by a day or two of rest. Overtraining your abs simply invites neck and lower back problems, not to mention boredom.

**Myth #5: The front of your stomach has two separate muscles: the upper abs and one called the lower abs.**



**Reality:** The rectus abdominis is one long, flat, continuous sheet of muscle. Any abdominal crunch exercise works the entire muscle, although lifting your upper body off the floor emphasises the upper portion of the rectus, and lifting your hips off the floor emphasises the lower portion. When you do ab exercises slowly and with perfect form, you feel the entire muscle working no matter what exercise you do.

**Myth #6: You need a gadget to train your abs.**



**Reality:** Those ab roller-type contraptions that were floating around gyms for so many years? Well, there's a reason you don't see 'em anymore. Not only do most of them strengthen your back and hips more than they do your abs, but some of them can cause injury to your neck. You're much better off sticking with ab-roller-free exercises — like, say, the ones we show you in this chapter.

**Myth #7: Sit-ups are better than crunches.**



**Reality:** With any sit-up-type movement, your abdominals are involved only in the first part of the motion. After your shoulders clear the floor, your hip and lower back muscles take over. So there's no point in sitting all the way up to your knees.

## *Mistakes to Avoid When Training Your Abdominals*

Mistakes are so common with abdominal exercises that the Crunch has the dubious honor of qualifying for a spot in Chapter 26 as one of the exercises most often performed incorrectly. Here's a close look at abdominal training no-nos:



- ✔ **Avoid doing neck-ups.** In other words, lift from your abs, not your neck; otherwise you're asking for neck pain. Your head and neck shouldn't be involved in abdominal exercises at all — they're just along for the ride. Place your hands behind your head without lacing your fingers together, and tilt your chin slightly upward so that there's about a fist's worth of space between your chin and your chest. Your head and neck should stay in this position throughout the exercise.
- ✔ **Don't move your elbows.** Your elbows have nothing to do with abdominal exercises. Once you position your elbows out and slightly rounded inwards, leave them there. If you pull your elbows up and in, you'll end up pulling on your neck.
- ✔ **Don't arch or flatten your back.** We frequently remind you to pull your abs in, but always keep a slight gap, the width of a finger or two, between the small of your back and the floor.
- ✔ **After the lift, don't forget the curl.** The Crunch involves more than simply lifting your head, neck and shoulder blades off the floor; you also need to curl forward, as if you are doubling over. Imagine how you'd move if you were lying there and someone dropped a weight on your stomach. That's the movement you're aiming for here.





## Exercises in This Chapter

Here's a list of the abdominal exercises that we present in this chapter:

- ✓ Basic Abdominal Crunch
- ✓ Reverse Crunch
- ✓ Oblique Crunch
- ✓ Bent Knee Side Crunch
- ✓ Wall Roll-up
- ✓ Roll Down Negative Curl

### Basic Abdominal Crunch



The Basic Abdominal Crunch is the fundamental abdominal exercise, working all of your ab muscles. Pay special attention to your form if you have **lower back** or **neck** problems.

#### Getting set

Lie on your back with your knees bent and feet flat on the floor hip-width apart. Place your hands behind your head so that your thumbs are behind your ears. Don't lace your fingers together. Hold your elbows out to the sides and rounded slightly in. Tilt your chin slightly so that there's a few inches of space between your chin and your chest. Gently pull your abdominals inwards. See photo A of Figure 12-2.

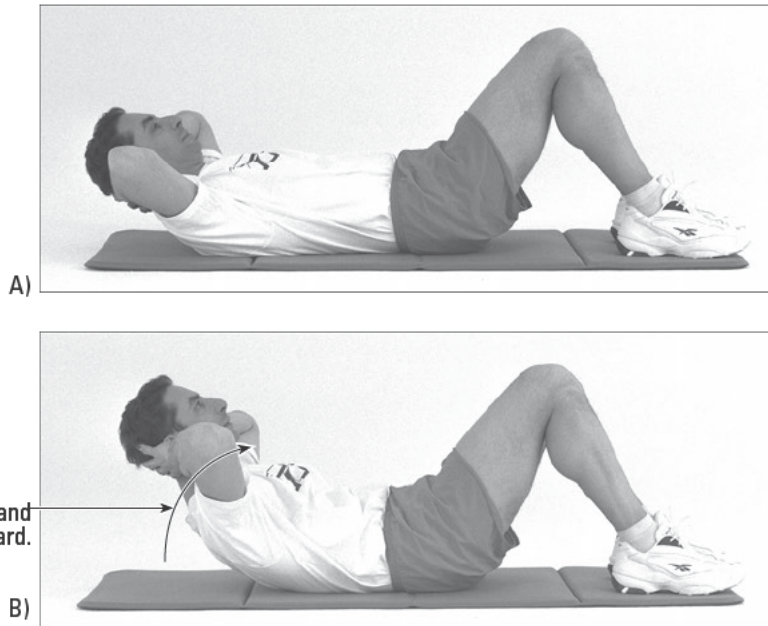
#### The exercise

Curl up and forward so that your head, neck, and shoulder blades lift off the floor. Hold for a moment at the top of the movement, and then lower slowly back down. See photo B of Figure 12-2.



#### Do's and don'ts

- ✓ **DO** keep your abdominals pulled in so that you feel more tension in your abs and so you don't overarch your lower back.
- ✓ **DO** curl as well as lift. For an explanation of curling, refer to the introduction to this chapter and to Chapter 26, in which we describe common crunch mistakes.
- ✓ **DON'T** pull on your neck with your hands or draw your elbows in.



**Figure 12-2:**  
Gently  
pull your  
abdominals  
inwards.

### *Other options*

**Cross-arm Crunch (Easier):** Fold your arms across your chest, palms down, and tuck your chin so that it rests on your hands. This will save you the effort of having to lift the weight of your arms.

**Legs-up Crunch:** Keeping your knees bent, pick your legs off the floor and cross your ankles.

**Weighted Crunch (Harder):** Hold a *light* weight plate on your chest, or for an even greater challenge, hold a weight on top of or behind your head. Just don't press the plate down too hard.

## *Reverse Crunch*



The Reverse Crunch emphasises the lower portion of your main abdominal muscles (the rectus abdominis). Use caution if you're prone to **lower back** discomfort.

### *Getting set*

Lie on your back with your legs up, knees slightly bent and ankles crossed. Rest your arms on the floor beside you or behind your head. Rest your head on the floor, relax your shoulders and pull in your abdominals. See photo A of Figure 12-3.

### *The exercise*

Lift your butt about 5 to 10 centimetres off the floor so that your legs lift up and a few inches backwards. Hold the position for a moment, and then lower slowly. See photo B of Figure 12-3.



### *Do's and don'ts*

- ✓ DO keep your shoulders relaxed and down. Don't involve your upper body at all.
- ✓ DO keep this movement small and precise; you don't have to lift very high to feel this exercise working.
- ✓ DO use a minimum of leg movement; don't thrust or jerk your hips.
- ✓ DON'T roll your hips so that your buttocks and back come way off the floor. This type of movement involves your front hip muscles more than your abdominals.

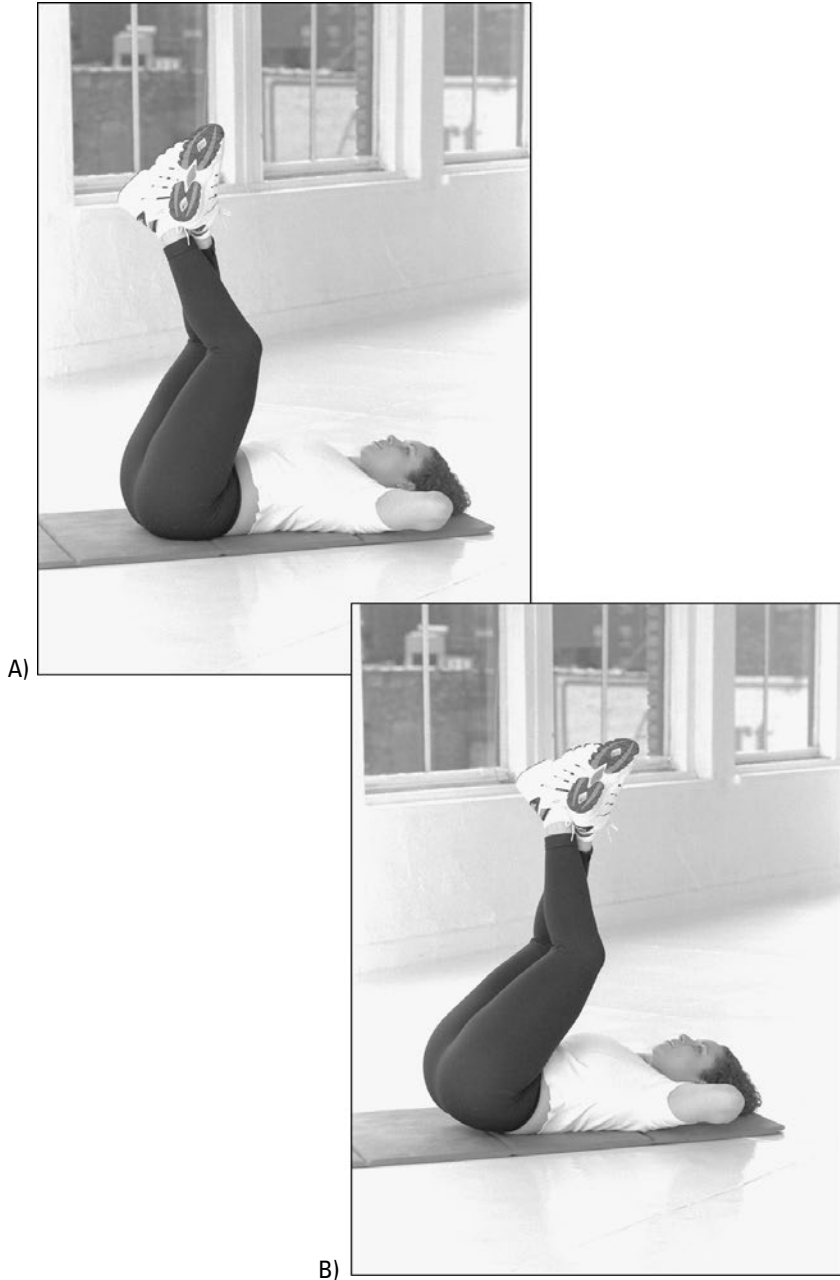
### *Other options*

**Modified Reverse Crunch (Easier):** Hold onto the back edges of an exercise mat or stable object such as the underside of a couch or stuffed chair to help stabilise your upper body.

**One-leg Reverse Crunch (Easier):** Lift one leg at a time. Bend your other knee so that your foot is flat on the floor.

**Incline Reverse Crunch (Harder):** Place three risers underneath one end of a step bench and one riser underneath the other end. Lie on the step with your head at the higher end of it. Stretch your arms out behind you and hold on to the underside of the step directly behind your head. Perform a reverse crunch by lifting your hips up. This version of the Reverse Crunch is more difficult because you are working against gravity.





**Figure 12-3:**  
Lift your  
butt 5 to 10  
centimetres  
off the floor.

## Oblique Crunch



The Oblique Crunch works all your abdominal muscles with an emphasis on your obliques. Pay special attention to form if you have a history of **lower back** or **neck** discomfort.

### Getting set

Lie on your back with your knees bent and your feet hip-width apart and flat on the floor. Place your left hand behind your head so your thumb is behind your left ear. Place your right arm along the floor beside you. Bring your elbow out to the side and round it slightly inwards. Tilt your chin so your chin and your chest are a few inches apart. Switch your core on. See photo A of Figure 12-4.

### The exercise

As you curl your head, neck and shoulder blades off the floor, twist your torso to the right, bringing your left shoulder towards your right knee. (Your elbow won't actually touch your knee.) Lower your back down. Do all the repetitions on one side and then switch to the other side. See photo B of Figure 12-4.



### Do's and don'ts

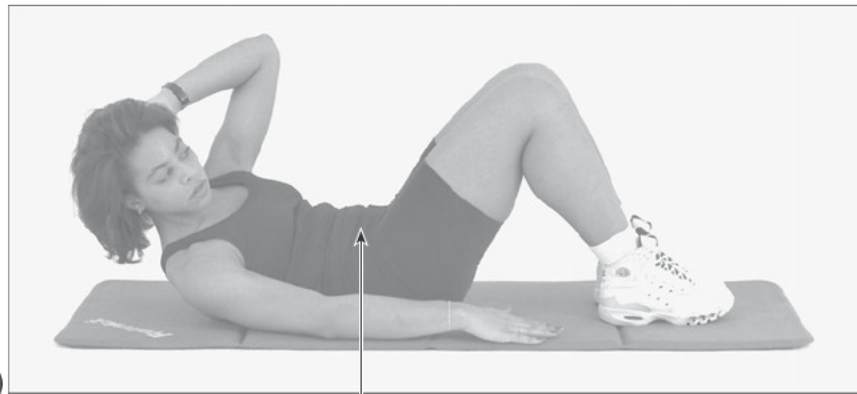
- ✓ DO concentrate on rotating from your middle rather than simply moving your elbows toward your knees.
- ✓ DO keep both hips squarely on the ground as you twist to protect your lower back.

### Other options

**Legs-up Crunch with a Twist (Harder):** Lift your bent knees off the floor and cross one ankle over the other.

**Straight-arm Crunch with a Twist (Harder):** Reach for your opposite knee with your arm straight rather than your elbow bent. Reach past the outside edge of your knee.

**Drop-knee Cross Crunch:** Drop both of your knees to one side and crunch straight upward. This will force the obliques to work along with the other abdominal muscles.



**Figure 12-4:**  
Lift your  
shoulder  
towards  
your knee.

Twist from your middle; don't pull from your elbow.

## *Bent Knee Side Crunch*

The Bent Knee Side Crunch challenges your obliques to work together with all of your abdominal muscles.

### *Getting set*

Lie on your back with your knees bent and your feet hip-width apart and flat on the floor. Drop both of your knees to one side and keep your legs stacked together. Place both hands behind your head without lacing your fingers. Place thumbs at base of skull. See photo A of Figure 12-5.

### The exercise

Curl straight upwards keeping your legs together and drawing your ribs towards your hips. Lower your back down. Do all the repetitions on one side and then switch to the other side. See photo B of Figure 12-5.

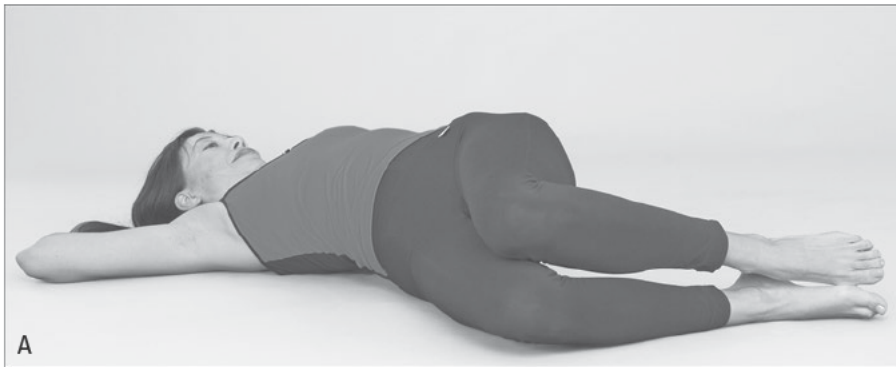


### Do's and don'ts

- ✓ DO keep torso rotated at the waist and legs together.
- ✓ DO keep your head, neck and shoulders relaxed.
- ✓ DO move slowly and take the time to feel your abs working.
- ✓ DON'T pull on your neck or touch your elbow to your knee.

### Other options

**Weighted Bent Knee Side Crunch (Harder):** Hold a *lightweight* plate or dumbbell on your chest, or for an even greater challenge, hold a weight on top of or behind your head. Just don't press the plate down too hard.



A



B

**Figure 12-5:**  
Do keep  
your legs  
together.

## Wall Roll-up



The Wall Roll-up strengthens all your abdominal muscles as well as your lower back muscles. If you have a history of **lower back** problems, you may want to limit the distance that you roll.

### Getting set

Stand with your back against a wall and your feet a comfortable distance from the wall, heels together, and toes apart. Pull your abs in, and gently press your entire back, including your neck and shoulders, into the wall. Let your arms hang down at your sides, loose and relaxed. See photo A of Figure 12-6.

### The exercise

Drop your chin to your chest, and then peel your neck off the wall, followed by your shoulders, then your upper back, then your middle back, and then your lower back. Keep your tailbone and your butt against the wall. Hang forward a moment and then slowly reverse the movement, pasting your entire spine back onto the wall until you have returned to the starting position. See photo B of Figure 12-6.



### Do's and don'ts

- ✓ DO try to move one vertebra at a time so you feel as if you're curling down and then up.
- ✓ DO keep your abdominals pulled in the entire time, and use them to control the speed and degree of movement.

### Other options

**Modified Wall Roll-up (Easier):** If this exercise bothers your lower back or you don't have the strength to lower all the way down, move only to the last point at which you can still maintain good form. Then curl back up again. You'll gradually build enough strength to perform the complete exercise.

**Floor Roll-up (Harder):** Do the Roll-up lying on your back with your knees bent and feet flat on the floor. You can place your hands underneath your thighs to assist you upwards on the hard parts. Don't do this version if you're prone to lower back trouble. And don't just sit up by lifting your back straight up off the floor. Instead, curl up and down one vertebra at a time.



**Figure 12-6:**  
Keep your  
tailbone  
against the  
wall.

## Roll Down Negative Curl

The Roll Down Negative Curl focuses on the hardest part of the crunch — the lowering phase.



Pay special attention to your form if you have lower back or neck problems.

### Getting set

Sit with your knees bent and feet flat on the floor hip-width apart. Reach forward and place your hands on the outside of your thighs. Slide your shoulders down and tilt your chin slightly so there are a few inches of space between your chin and your chest. Gently pull your abdominals inwards. See photo A of Figure 12-7.

### The exercise

Tuck your pelvis and slowly lower your back as far as you can go and keep your feet on the ground. Hold for a moment and then curl slowly back up. See photo B of Figure 12-7.



### Do's and don'ts

- ✓ DO keep your abdominals pulled in so that you feel more tension in your abs.
- ✓ DO curl as well as lift. For an explanation of curling, refer to the introduction to this chapter and to Chapter 26, in which you find out common crunch mistakes.
- ✓ DON'T hunch or collapse your shoulders.

### Other options

**Hands on Chest Negative Curl (Harder):** Fold your arms across your chest, palms down and tuck your chin in slightly. This position increases the weight of your upper body.

**Hands Behind Head Negative Curl (Harder):** Place your hands behind your head without lacing your fingers. This version further increases the weight of your upper body.



**Figure 12-7:**  
Curl back  
with feet on  
the ground.



## Chapter 13

# Working Your Core

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### *In This Chapter*

- ▶ Understanding your core muscles
  - ▶ Benefiting from a strong core
  - ▶ Working out your core muscles
  - ▶ Avoiding mistakes during training
  - ▶ Practising exercises for your core
- 

**C**ore training, core strength and core programs are popular exercise buzzwords these days. On health club group exercise class schedules, sessions are devoted to training the core and so much more.

Many exercisers mistakenly think that core training simply is another name for working more abdominals. This idea is wrong. Core training is about training your body's centre and building a strong foundation. Core stabilisation exercises challenge your body to remain solid and centred. This training builds great posture and prevents injury. In fact, simply by standing with good posture, you look taller and slimmer, as if you've lost a kilo. Many people who train their core gain a couple of centimetres in height, lose inches around the waist, and eliminate back pain after doing core exercises regularly. This news is remarkable when you consider that most people get shorter as they age.

In this chapter, you discover the meaning of *core*. You also understand why having a strong and stable core is important to feel and look your best.

## *Introducing Core Stabiliser Muscle Basics*

Core refers to the anatomic centre of the body. You can also use the terms trunk or torso interchangeably with the word core. Stabiliser muscles hold your joints together properly to improve movement efficiency, prevent injury and promote stability. When athletic trainers typically think of core

training, they refer to muscles that stabilise the hips and lower back. For peak sports performance, athletes need to be able to transfer the strength and power of their legs and hips through the trunk. Think of a great tennis or basketball player and how this player uses his core muscles to add power to the game.

To improve everyday living, it's a good idea to take a broader view of the core and include muscles that support the spine, shoulders and hips. These muscle groups all work together to create good posture and provide balance and control. In Chapters 8, 10, 12 and 14, we discuss training your back, shoulders, abs, butt and legs from the perspective of training your *mover* muscles. Here, we discuss training your *stabiliser* muscles.

Core stabiliser muscles include the following muscles:

✓ Trunk stabilisers

- *Transverse abdominus*
- *Internal obliques*
- *Multifidus*
- *Quadratus lumborum*

✓ Shoulder stabilisers

- *Trapezius*
- *Rhomboids*
- *Levator scapulae*
- *Serratos anterior*
- *Pectoralis minor*

✓ Pelvic stabilisers

- *External rotators*
- *Hip abductors* (includes the *gluteus medius* and *minimus* [glutes] and *tensor fascia latae*)
- *Pelvic floor* and *diaphragm*

Many of these muscle names may be familiar to you from other chapters in this book. The difference when it comes to core training is that instead of strengthening these muscles as movers, the focus in core training is on improving the endurance of these muscles as stabilisers.

Your stabiliser muscles work whenever you're awake and standing, sitting or otherwise moving. Strong core stabilisers do the following:

- ✓ Enable you to sit upright on a bench with no backrest for long hours to watch your kid's soccer game
- ✓ Ensure that your shoulders and hips work properly
- ✓ Help you avoid injury or the need for joint replacement surgery
- ✓ Keep your balance when you stand on one leg
- ✓ Help prevent falls

## *Enjoying a Strong Core*

Core stabilisation exercises aren't sexy, but they're critically important to enjoying everyday living.

- ✓ **Real-life benefits:** A strong core supports good posture and proper joint alignment. Good posture not only makes you look and feel better but also prevents back pain. A strong core allows you to stand for long periods of time without pain or survive sitting at your desk and working at your computer for long hours.
- ✓ **Injury prevention:** Good posture places the least amount of stress on your joints. Strong stabilisers keep your neck, shoulders, hips and knees properly aligned to minimise wear and tear on your body. Strong stabilisers also let you use the strength in your arms and legs. For example, if you don't have a stable shoulder joint, regardless of how strong your arms and back are, lifting items like a suitcase without hurting your shoulder may be tough.
- ✓ **The 'feel good' factor:** Nothing boosts your confidence like great posture and moving from the centre of your being. Standing up tall; facing life straight on. That's what it's all about.

## *Getting a Core Workout*

To get a great core stabilisation workout, you need to focus on keeping your torso solid. Because the objective of core training is to improve muscle endurance, instead of sheer strength, isometrically held exercises such as the Plank (described later in this chapter) are effective training methods.

In addition, core exercises train your body's stabiliser muscles to work together. For example, preventing low back pain isn't simply about strengthening your abs. To provide optimal support for your spine, your abs, back, pelvic floor and hip muscles all need to work together. Unlike other exercises that isolate and target a specific muscle or muscle group, core stabilisation exercises challenge your whole body to work together. Form is critically important. Always stop doing an exercise when you can no longer execute it with perfect form.

Unlike the mover muscles that are closer to the surface of your body, your deep stabiliser muscles are made up of almost 100 per cent slow twitch fibres. In other words, these muscles aren't designed for short bursts of strength and power. Instead, these muscles are meant to be working at all times that you're in motion. Therefore, unlike strength training exercises that require you to push yourself to fatigue and then rest for at least 48 hours, you can do core stabilisation exercises daily. In fact, daily core stabilisation exercises remind you to use your postural muscles as you sit, drive, stand, run your errands or work at the office.

Last, but certainly not least, core exercises improve your sex life. As you tone up your pelvic floor and your deep abdominals, regain mobility in your spine, and improve control over your pelvis, your sex life gets a great boost. And research shows that a healthy sex life is definitely good for your overall wellbeing. As if we need studies to tell us that.

## Avoiding Mistakes When Training Your Core

Most of us are weak in the core, so we need to pay particular attention to form and quality of movement.



TIP

Keep these tips in mind to get the most out of each of your core exercises:

- **Avoid a saggy back.** No, we're not talking about the skin on your back — don't go out and buy any special creams just yet. What we're trying to say is, when you forget to tighten your abdominal muscles, particularly the deepest layer (the *transversus abdominis*), your back sags in the middle — kind of like an old donkey. And no one wants to look like that!



POSTURE PATROL

To avoid donkey posture, draw your abdominals in towards your spine as you exhale and keep your abs contracted for the duration of the exercise.



- ✓ **Don't pop out your rib cage.** Another good way to check whether your deep abdominal muscles are active is to look at the position of your rib cage. Draw your lower ribs in snug towards your spine. If your ribs flare up and out, your deep trunk stabilisers aren't active. Tighten 'em up.
- ✓ **Don't stick your butt up in the air.** When you're training your abs and back in positions like the Plank or a Push-up, you need to rely on the strength of your core muscles and not your legs. You can always tell that you are cheating by relying on your leg strength if your butt is sticking up in the air. Make sure that it is no higher than your shoulders.
- ✓ **When you exhale, always lift your pelvic floor up and pull your abdominals in towards your spine.** The best way to activate your deep abdominals and pelvic floor muscles is by exhaling actively as you lift your muscles up and in. Exaggerate your exhalation as you do your core stabilisation exercises to make sure that you're using these muscles.

## Exercises in This Chapter

Here's a list of the core stabilisation exercises presented in this chapter:

- ✓ Plank
- ✓ Side Plank
- ✓ All-fours Spinal Stabilisation
- ✓ Reverse Tabletop Plank
- ✓ Lying Leg Extension

### Plank

The Plank is a basic core stabilisation exercise that works your abs, back, glutes and shoulder stabiliser muscles.



Do the easiest version if you have any shoulder discomfort.

#### Getting set

Lie facedown with your knees bent. Place your elbows under your shoulders. Slide your shoulders down and lengthen the back of your neck so your ears are in line with your shoulders. Gently pull your abdominals inwards. See photo A of Figure 13-1.

**The exercise**

As you exhale, curl your toes under and push up onto the balls of your feet. Avoid arching your upper or lower back. Work up to a 30-second hold. See photo B of Figure 13-1.



**Figure 13-1:**  
Gently  
pull your  
abdominals  
inwards.

**Do's and don'ts**

- ✓ DO keep your abdominals pulled in so you feel more tension in your abs and so you don't overarch your lower back or pop out your ribs.
- ✓ DO keep your shoulders down and your neck lengthened. Avoid hunching your shoulders.
- ✓ DON'T lift your butt in the air and rest your weight on your legs.

*Other options*

**Plank on Knees (Easier):** Lift up on your knees, keeping your abs and glutes tight and your spine lengthened. Supporting a shorter length is easier for the core stabilisers.

**One-legged Plank (Harder):** Keep your torso parallel to the ground. Lift one leg. Work up to a 30-second hold. To make it even more difficult, pick up and extend the opposite arm as you also hold up one leg.

## Side Plank

The Side Plank conditions core stabilisers, especially the muscles that support the shoulder girdle and lower back.

Use caution if you're prone to shoulder discomfort.

*Getting set*

Recline on your left side, left hand palm down under your shoulder. Place your top right hand in front of your body. Keep your torso perpendicular to the ground, relax your shoulders, and pull in your abdominals. See photo A of Figure 13-2.

*The exercise*

Push into your left hand and lift your hips up into a side plank position. Work up to a 30-second hold. See photo B of Figure 13-2.

*Do's and don'ts*

- ✓ DO keep your shoulders down and neck lengthened. Don't hunch or collapse into your shoulder.
- ✓ DO continue to breathe normally as you hold the position. Avoid holding your breath.
- ✓ DO move smoothly and with control.
- ✓ DON'T collapse your chest forward or lean backward. Keep your torso perpendicular to the floor.

*Other options*

**Modified Side Plank (Easier):** Start with your right elbow under your shoulder and with your lower leg bent at a right angle at the knee. Keep the top leg long and straight.

**Side Plank Lifts:** Instead of holding the elevated position for 30 seconds, lift and lower your hips and work up to 12 repetitions.

**One-legged Side Plank (Harder):** When you reach the elevated position, pick your top leg off the floor and hold it straight at hip height.



**Figure 13-2:**  
Don't hunch  
or collapse  
into your  
shoulder as  
you lift.

## All-fours Spinal Stabilisation

All-fours Spinal Stabilisation is an excellent exercise to condition postural muscles and to prevent lower back pain.

If you have wrist pain when you put your palms on the ground, try doing the exercise on your closed fists.



### Getting set

Kneel on all fours in a tabletop position with your hands under your shoulders and knees under your hips. Slide your shoulders down. Pull your abdominals in. See photo A of Figure 13-3.



**The exercise**

Lift and extend opposite arm and leg out straight. Keep your chest and hips parallel to the ground. Lower your arm and leg back to start. Repeat with other arm and leg. See photo B of Figure 13-3.

**Do's and don'ts**

- ✓ DO concentrate on keeping your torso parallel to the ground.
- ✓ DON'T hunch your shoulders or arch your back.



A)



B)

**Figure 13-3:**  
Keep  
your torso  
parallel to  
the ground.

**Other options**

**Spinal Stabilisation arms only or legs only (Easier):** Instead of simultaneously lifting the opposite arm and leg, only lift alternating arms. Repeat, only lifting alternating legs.

**Spinal Stabilisation same side arm and leg (harder):** Instead of lifting your opposite arm and leg, lift the arm and leg on the same side.

## Reverse Tabletop Plank

The Reverse Tabletop Plank is an all-around excellent core stabiliser, working abs, back, glutes and shoulder stabiliser muscles. This exercise excels because it works so many muscles simultaneously, which is the way that we challenge our bodies in real life.

### Getting set

Lie on your back with your knees bent and palms under your shoulders, and then lift yourself into a tabletop position. See photo A of Figure 13-4. Point your fingers in whatever direction is most comfortable for your shoulders. Slide your shoulders down. Pull your abdominals inwards.

### The exercise

As you exhale, squeeze your buttocks and push up onto your heels. Avoid arching your upper or lower back. Hold your head in the most comfortable position for your neck — either upright and looking down your torso or lowered gently towards the back. Work up to a 30-second hold.

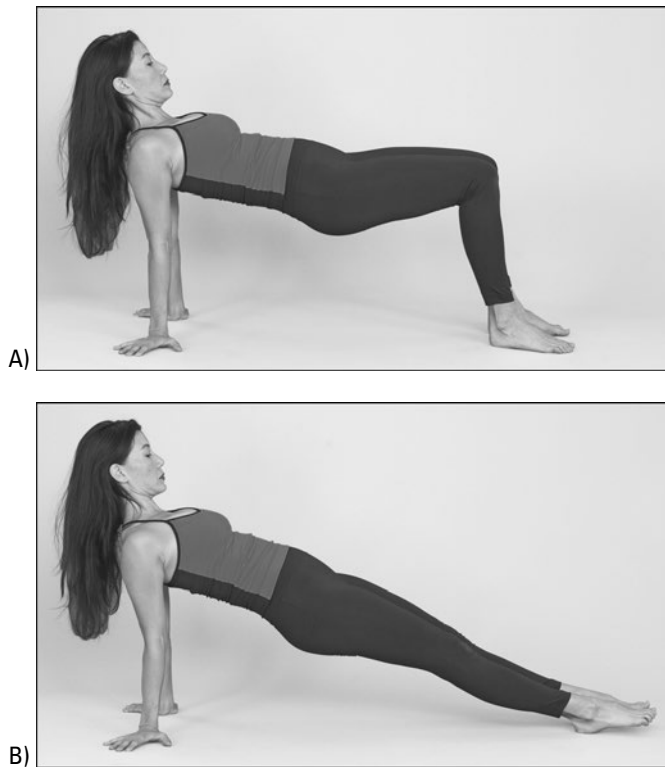


### Do's and don'ts

- ✓ DO keep your abdominals pulled in so you don't arch your lower back or pop out your ribs.
- ✓ DO keep your shoulders down. Avoid hunching or collapsing into your shoulders.
- ✓ DON'T let your bottom sag down.

### Other options

**Reverse Plank (Easier):** Lie on your back with your legs straight and palms under your shoulders, and then lift yourself onto your hands. See photo B of Figure 13-4. Lift your hips, keeping your knees over your ankles, your abs and glutes tight and your spine lengthened. Supporting a shorter length is easier for your core stabilisers.



**Figure 13-4:**  
A Reverse  
Tabletop  
Plank (A),  
and a  
variation  
with straight  
legs (B).

**Reverse Plank with Leg Lift (Harder):** Keep your torso parallel to the ground as in photo A in Figure 13-4. Alternate lifting and lowering one leg at a time as high as you can without lowering your hips.

## *Lying Leg Extension*

This is an all-around excellent core stabiliser, working abs, pelvic floor muscles and the stabilising muscles in your core, as well as your quads.

### *Getting set*

Lie flat on your back with your arms either behind your head, straight down by your sides, or under your lower back (this last option will make the exercise easier, by relieving the pressure off your lower back muscles). Switching your core on, lift your legs into the air, and bend your knees at a 90 degree angle, so that your feet are facing the wall in front of you. See photo A of Figure 13-5.

**The exercise**

As you inhale, lower one heel towards the ground until it touches the floor, maintaining the right angle in both legs. Avoid arching your upper or lower back as you do so, by keeping your core switched on. See photo B of Figure 13-5. As you exhale, slowly bring your leg back up to the starting position; then repeat with the other side.

**Do's and don'ts**

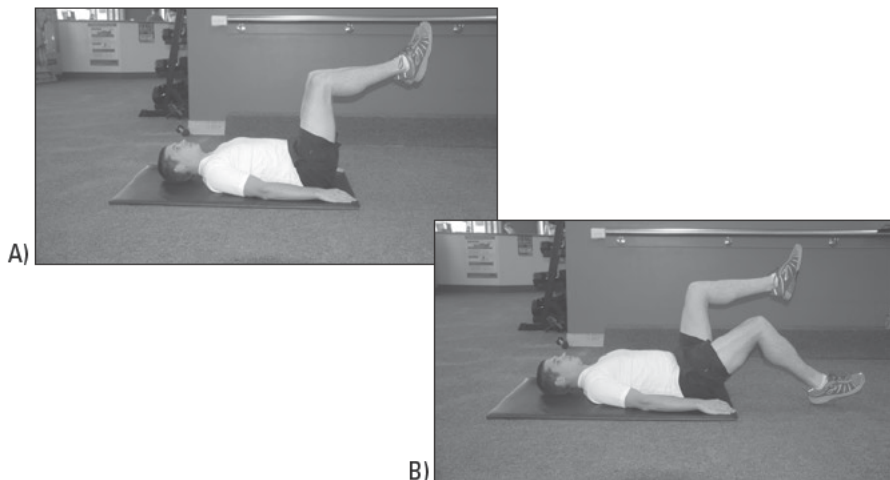
- ✓ DO keep your abdominals pulled in so you don't arch your lower back or pop out your ribs.
- ✓ DO keep your shoulders down and your neck relaxed. Avoid tensing your upper body.
- ✓ DON'T forget to keep breathing!

**Other options**

**Full Leg Extension (Harder):** Start with your legs straight up in the air, rather than bent at a 90 degree angle — so that your feet are pointing towards the ceiling. Then, slowly lower one of your legs towards the floor. Without letting your foot touch the floor, bring your leg back to its starting position. Repeat with your other leg.

**Double Leg Extension (Harder):** Complete the exercise in the same fashion as the lying leg extension, but instead of only lowering one leg at a time, lower both. You can do this with bent legs, or, for an extra challenge, with straight legs as per the Full Leg Extension.

**Figure 13-5:**  
Starting position of a Lying Leg Extension (A). Keep your core switched on as you lower your leg to the floor (B).



## Chapter 14

# Working Your Butt and Legs

### *In This Chapter*

- ▶ Introducing your butt and leg muscles
- ▶ Appreciating why you need a strong lower body
- ▶ Learning strategies for great butt and leg workouts
- ▶ Avoiding classic mistakes when training your lower body
- ▶ Sampling some exercises for your lower body

Your butt and legs are home to the largest muscle groups in your body, and these muscles carry you everywhere you go — unless, of course, you live in Sydney, in which case your car carries you everywhere you go, even if you're going only one block. At any rate, your lower body muscles deserve plenty of attention. If you give them their proper due in your strength training routine, they will carry you even further and faster. And because they're the largest muscle groups in your body, working them out results in a high rate of fat-burning — great news when you're interested in getting slimmer or more toned.

In this chapter, we introduce you to terms such as *glutes* and *quads*, and we explain how best to strengthen and tone these and other lower body muscles.

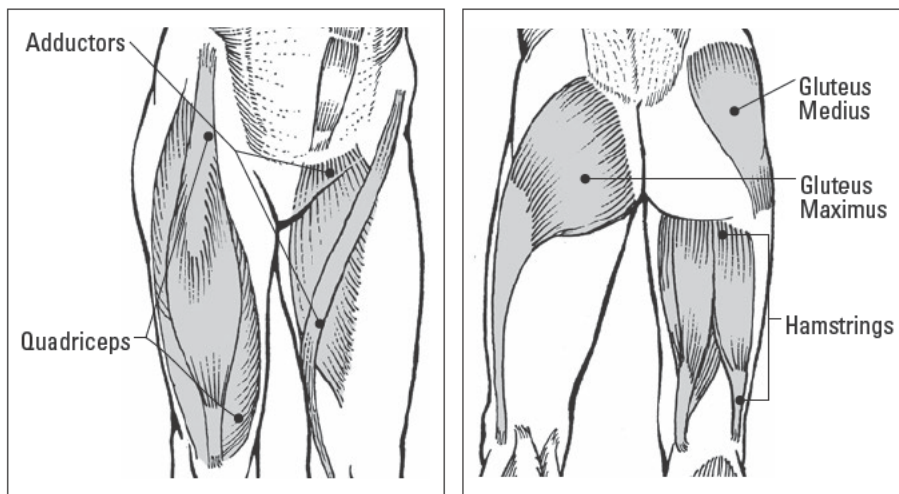
## *Butt and Leg Muscle Basics*

Your largest lower body muscle, as if we have to tell you, is your *gluteus maximus*, emphasis on the maximus. This is the granddaddy of all muscles, and it covers your entire butt, both cheeks. The main job of the gluteus maximus, also known as the *glutes*, is to straighten your legs from your hips, such as when you stand up from a chair. The muscles opposite your gluteus maximus, located at the front of your hips, are collectively known as the *hip flexors*. These muscles help you lift your leg up high so you can march in a parade or step up onto a ladder. You don't need to spend much time

working your hip flexors; they tend to be strong to begin with. When they become disproportionately strong and tight compared to other muscles, they throw your hip and lower spine out of whack. This strength imbalance may contribute to poor posture and lower back pain.

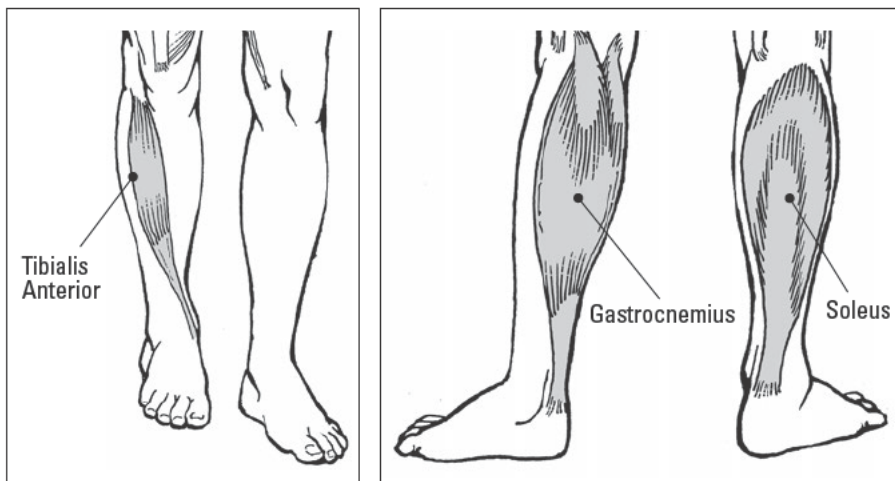
The sides, or meat, of your hips are called your *abductors* or outer thighs. Your outer hips move your leg away from your body, like when you push off while rollerblading. The main outer hip muscle is called the *gluteus medius*. The muscles that span the inside of your upper leg are known as your *adductors*, or inner thighs. They pull your leg back in towards your body or, when they're feeling really ambitious, they sweep one leg in front of and past the other, like when you kick a soccer ball off to the side. The *quadriceps*, or *quads* for short, are located at the front of your thighs. Together these four muscles that create the quads have one purpose: to straighten your leg from the knee. The hamstrings, also known as the *hams*, reside directly behind your thigh bone. These muscles bend your knee and help the glutes do their thing.

You have two calf muscles: the *gastrocnemius* (*gastroc* for short) and the *soleus*. The gastroc is shaped like a diamond. Check out the calves of any competitive bicyclist and you'll see precisely what this muscle looks like. The gastroc allows you to raise up on tip-toe to see over your neighbour's fence. Your soleus sits directly underneath the gastroc and helps out the gastroc when your knee is bent and you need to raise your heels up, like when you're sitting at the movies and you realise that you just stepped in gum. Your shin muscle, covering the front of your lower leg, is the *tibialis anterior*. Whenever you're feeling stubborn and want to dig your heels in, you can thank this muscle for allowing you to literally make this gesture happen. Check out Figures 14-1 and 14-2 for a look at the muscles you'll be working on when you do the exercises in this chapter.



**Figure 14-1:**  
Your butt  
and upper  
leg muscles.





**Figure 14-2:**  
Your lower  
leg muscles.

## Why You Need Strong Legs

Many men are too busy attempting to inflate their upper body muscles to epic proportions, while many women are afraid of developing tree trunks where their legs once were, to focus on working out their pins. But here's why you should get to work on those glutes, quads, hams and calves:

- ✓ **Real-life benefits:** When you take the time to strengthen your legs, you have more stamina for waiting in line at the cricket ground beer tent, racing through the shopping centre to find a last-minute birthday gift, climbing the office stairs when the elevator is broken and standing on tip-toe to paint the corner of your ceiling.



If you're on an aerobic mission like training for a 10K or a bike-a-thon, strong legs are even more essential. Many runners and cyclists are afraid to lift weights, figuring that they'll develop bulky legs that'll slow them down. But the reality, according to mounds of research, is that leg and butt exercises will help you go farther and faster.

One guy we know couldn't break the 4-hour barrier in the marathon until he started doing lower body weight training exercises. His hips used to tire out at about kilometre 25, so he wasn't able to stretch his legs out to their full stride, and he'd shuffle through the last 16 kilometres. At age 49, thanks to a regular leg routine, he was finally able to cruise through the finish line in 3 hours and 50 minutes. Even if your athletic goals aren't as ambitious as running 42 kilometres, leg workouts are important. Say you simply want to ride your stationary bike for 30 minutes three times a week. Stronger legs help you pedal faster and harder, so that you can burn more kilojoules during that half hour.

✓ **Injury prevention:** Strengthening your lower body muscles is a good way to preserve your hip, knee and ankle joints — three joints that put in a lot of overtime and are particularly susceptible to injury. It's true that many joint injuries result from torn ligaments or tendons (the connective tissue that holds your bones in place), but many of these injuries won't occur in the first place if you have a strong army of muscles surrounding and protecting your joints. Often, lower body injuries result from a lifetime of repetitive motions such as walking up and down stairs.

By strengthening the muscles that surround the joints, you give them the competitive edge they need to do their job day after day. With strong lower body muscles you're less likely to sprain your ankle by stepping off a kerb because your joints have the strength to hold up even when they're wrenched into positions they'd prefer to avoid. Even if you're already at the point where you have bad knees or a 'trick ankle', it's not too late to pump some iron with your lower body muscles.

✓ **The 'feel good' factor:** People look strange when they have a fabulously built upper body and little bitty, microscopic legs — or a toned upper body and shapeless legs. Having toned, shapely legs is also the emphasis these days in Hollywood — and who wouldn't want a pair that looked a little more like Jennifer Aniston's or Ashton Kutcher's?

## *Keys to a Great Leg Workout*

You should work your large muscles before moving on to your small ones. So, perform your lower body workouts in the following order: glutes, quads, hamstrings, inner and outer thighs, calves, and shins.

In general, you should do at least four or five lower body exercises on a regular basis. Your workouts should include two types of exercises: *compound* exercises, which involve several muscle groups at once, and *isolation* exercises, which hone in on a single muscle group. If you're starting out with bad knees or hips, you may want to take a few weeks to simply focus on the muscles surrounding those joints. If your knees are the problem, for example, you could start with exercises that isolate your quads (the Thigh Squeeze and the Leg Extension machine) and your hams (the Leg Curl Machine) and wait a few weeks before graduating to compound exercises (the Squat and the Lunge). Here are some tips for working specific lower body muscle groups:





- ✓ **Glutes:** It's tough to isolate your butt muscles because nearly every butt exercise also involves the front and/or rear thigh muscles. However, you can maximise the emphasis on your maximus with a few simple technique tricks. For instance, when you're doing the Leg Press or the Squat, keep your weight shifted slightly back onto your heels, especially as you press back up into the straight-leg position. The more weight you shift onto your toes, the more your quadriceps become involved. Also, when you stand up, squeeze your cheeks to make sure your glutes are really working and not just going along for the ride.
- ✓ **Quadriceps:** The Leg Extension — an exercise in which you straighten your legs from a bent position — may give you a twinge of pain in your kneecap as you near the fully extended position. In this case, stop just before your legs are straight. Many leg extension machines have a device that stops the lever of the machine from going past the point you set. The machine may also let you start from a higher position than normal if you feel pain when you're initiating the movement.
- ✓ **Hamstrings:** The most popular way to work the hamstrings is with a leg curl machine; you start with your legs straight and curl your heels toward your butt. You typically find this machine in three varieties: lying, seated and standing. In this chapter we show you how to use the lying leg curl because it's the one you see most often and the one we generally like best, although our opinions vary from brand to brand. With some leg curl machines, you lie flat on your stomach; others have a severe bend in the support pad. Our favorite variety has you lying at an angle with your hips above your head. Try all the hamstring machines available to you, and use any of the machines that feel comfortable.
- ✓ **Calves:** When you perform the Standing Calf Raise, experiment with the angle of your toes to find the position that's most comfortable. But don't angle your toes too much outward or inward or you'll place too much stress on your knees and ankles. And perform calf exercises slowly. Bouncing your heels up and down can cause your calf muscles to tighten.



Expect to feel sore and walk a little stiffly for a day or two after your first few lower body workouts. Of course, any muscle that's new to weight training is likely to be sore after the first few sessions, but leg muscles seem particularly prone to this phenomenon. Start out with very light weights; otherwise, you may find yourself walking like you've been horse-riding for three days straight or wincing in agony when you get up from the breakfast table.

## *Mistakes to Avoid When Working Your Lower Body*

Here are the most common pitfalls to watch out for when training your butt and legs:

- ✔ **Don't play favourites.** In other words, don't work your butt muscles and neglect your thighs just because you want to fill out the back of your jeans. Strive for balance. If one lower body muscle group is monstrously strong compared to the others, you may end up with an injury.
- ✔ **Don't put your knees in jeopardy.** Avoid locking your knees when you're lifting a weight, and don't allow your knees to shoot out past your toes in the Squat, Lunge or Leg Press. If you feel knee pain during an exercise, stop immediately. Try another exercise and return to the one that gave you trouble after you've been training for a few weeks. Or do a simpler version of the exercise, restricting the distance you move the weight.
- ✔ **Don't perform more than 15 repetitions for any leg exercise.** Some people, afraid of developing bulky legs, use extremely light weights and perform 40 repetitions. You're not going to build much strength this way, and you'll probably fall asleep in the middle of a set. You also increase your chance of injury.

## *Exercises in This Chapter*

Here's a preview of the exercises we show you in this chapter:

- ✔ **Butt and Leg Exercises:** Squat, Lunge, Leg Press and Kneeling Butt Blaster
- ✔ **Quadriceps (Front Thigh) Exercises:** Dumbbell Step-ups and Leg Extension machine
- ✔ **Hamstring (Rear Thigh) Exercises:** Kneeling Leg Curl and Leg Curl machine
- ✔ **Inner and Outer Thigh Exercises:** Inner and Outer Thigh machine and Side-lying Leg Lift
- ✔ **Calf and Shin Exercises:** Standing Calf Raise and Toe Lift

## Squat



In addition to strengthening your butt muscles, the Squat also does a good job of working your quadriceps and hamstrings. If you have **hip, knee** or **lower back** problems, you may want to try the modified version.

### Getting set

Hold a dumbbell in each hand or place your hands on your hips or on the tops of your thighs, or allow them to hang comfortably down at your sides. Stand with your feet as wide as your hips and with your weight slightly back on your heels. Pull your abdominals in and stand up tall with square shoulders. See photo A of Figure 14-3.

### The exercise

Sit back and down, as if you're sitting into a chair. Lower as far as you can without leaning your upper body more than 5 to 10 centimetres forward, keeping your weight in your heels. (You should be able to lift your toes slightly off the floor.) Don't lower any further than the point at which your thighs are parallel to the floor, and don't allow your knees to shoot out in front of your toes (as shown in photo B of Figure 14-3). Once you feel your upper body fold forward over your thighs, straighten your legs and stand back up. Take care not to lock your knees at the top of the movement.

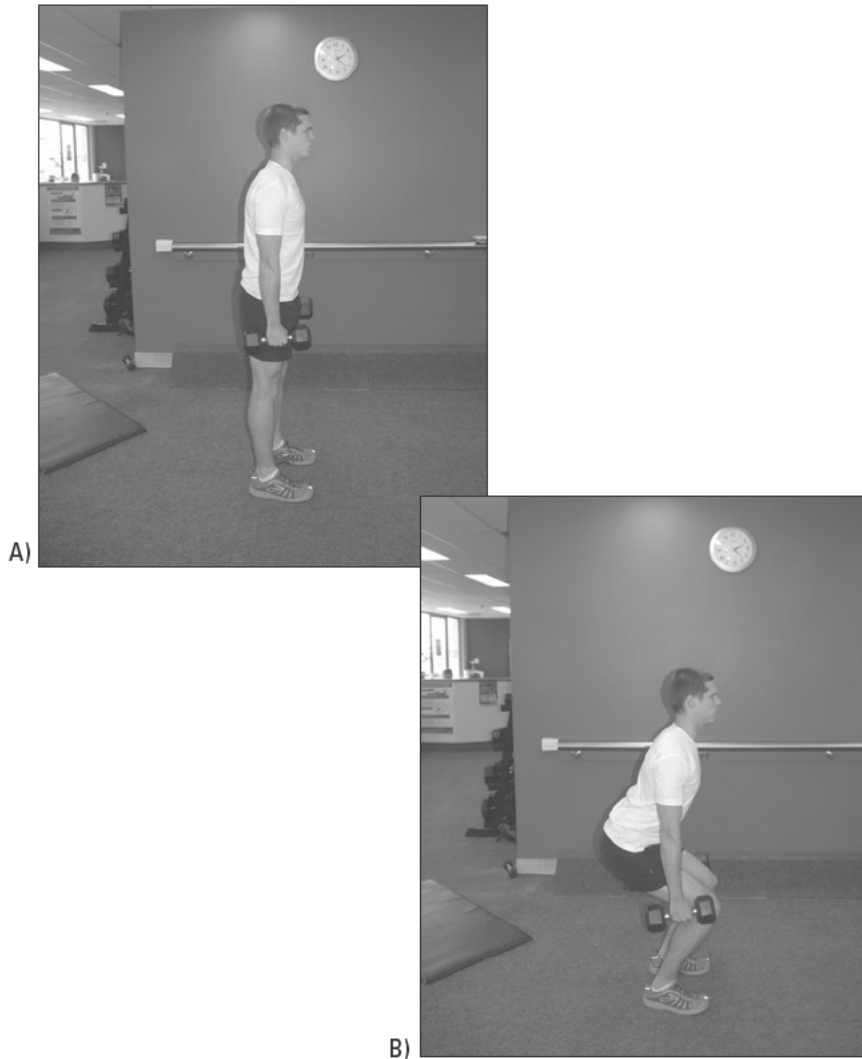


### Do's and don'ts

- ✓ DON'T allow your knees to travel beyond your toes. We know we said this before, but it bears repeating.
- ✓ DON'T look down. Your body tends to follow your eyes. So if you're staring at the ground, you're more likely to fall forward. Instead, keep your head up and your eyes focused on an object directly in front of you.
- ✓ DON'T shift your body weight forward so that your heels lift up off the floor. When you push back up to the standing position, concentrate on pushing through your heels.
- ✓ DO keep your core switched on throughout the entire exercise.
- ✓ DON'T arch your back as you stand back up.

### Other options

**Weightless Squat (Easier):** If you have trouble balancing or completing at least 8 repetitions of the Squat with good form, skip the weights. Instead place your hands on your hips or the tops of your thighs as you do the exercise.



**Figure 14-3:**  
Starting  
position of  
Dumbbell  
Squats (A).  
Don't shoot  
your knees  
past your  
toes (B).

**Bench Squat (Easier):** Place the end of a bench behind you and allow your buttocks to lightly touch the top of it as you sit down. This helps you guide your movement and perfect your form.

**Sumo Squat:** To add emphasis to the inner and outer thighs, place your feet out a little wider apart and angle your toes outwards. Most people can lower further in this position because they feel more stable. Still, don't travel any lower than the point at which your thighs are parallel to the floor, and don't let your knees shoot out past your toes.

## Lunge



The Lunge is a great overall lower body exercise: It strengthens your butt, quadriceps, hamstrings and calves. If you feel pain in your **hips, knees** or **lower back** when you do this exercise, try the Split Lunge version.

### Getting set

Stand with your feet as wide as your hips and your weight back a little on your heels, and place your hands on your hips. Pull your abdominals in and stand up tall with square shoulders. See photo A of Figure 14-4.

### The exercise

Lift your right toes slightly and, leading with your heel, step your right foot forward an elongated stride's length, as if you're trying to step over a crack on the footpath. As your foot touches the floor, bend both knees until your right thigh is parallel to the floor and your left thigh is perpendicular to it. Your left heel will lift off the floor. Press off the ball of your foot and step back to the standing position. See photo B of Figure 14-4.



### Do's and don'ts

- ✓ DO keep your eyes focused ahead; when you look down, you have a tendency to fall forward.
- ✓ DON'T step too far forward or you'll have trouble balancing.
- ✓ DON'T lean forward or allow your front knee to travel past your toes.

### Other options

**Split Lunge (Easier):** Start with one leg a stride's length in front of the other. Bend both knees and lower your body so that your ending position is the same as in the basic lunge. You may want to lightly grasp the back of an upright bench or a chair for support.

**Lunge with Weights (Harder):** Hold a dumbbell in each hand with your arms down at your sides, or place a barbell behind your neck and across your shoulders. You also can do the Split Lunge while holding a dumbbell in each hand or using the Smith Machine.

**Backward Lunge (Harder):** Step your right leg back about a stride's length behind you, and bend both knees until your left thigh is parallel to the floor and your right thigh is perpendicular to it. You'll feel this version a bit more in your hamstrings.

**Travelling Lunge (Harder):** Perform the basic lunge, alternating legs so that you travel forward with each repetition. You need a good 5 metres of space to do this. Bend your arms to 90 degrees and swing them purposefully. This is a great variation for skiers, hikers, and climbers.



A)



B)

**Figure 14-4:**  
Keep  
your eyes  
focused  
ahead.

Don't let your knee shoot past your toes.

## Leg Press machine



The Leg Press machine covers a lot of ground, strengthening your butt, quadriceps and hamstrings. It's a good alternative if the Squat or Lunge bother your lower back. You may want to try the modified version if you experience pain in your **hips** or **knees**.



### *Getting set*

Set the machine so that when you lie on your back with your knees bent and feet flat on the foot plate, your shoulders fit snugly under the shoulder pads and your knees are bent to about 5 to 10 centimetres below parallel to the foot plate. Place your feet as wide as your hips with your toes pointing forward and your heels directly behind your toes. Grasp the handles. Pull your abdominals in and keep your head and neck on the back pad. See photo A of Figure 14-5.

### *The exercise*

Pressing through your heels, push against the platform until your legs are straight. Then bend your knees until your thighs are parallel with the platform and the weight plates you are lifting are hovering just above the weight stack. See photo B of Figure 14-5.



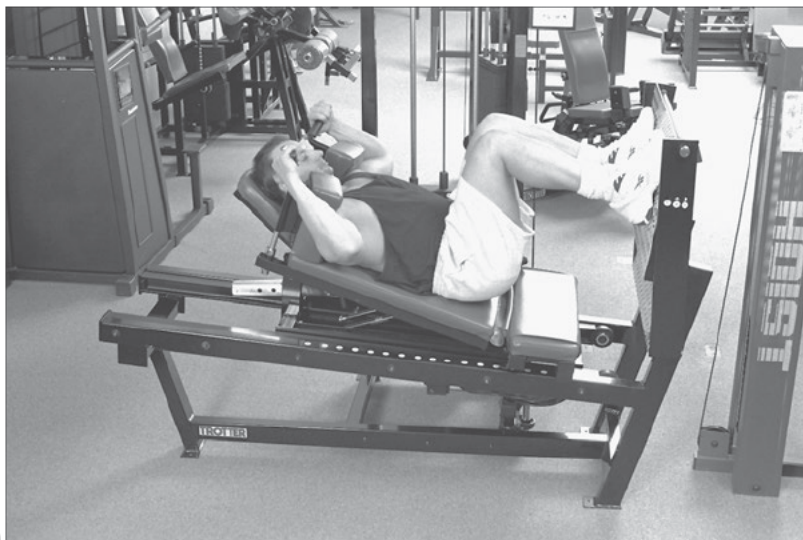
### *Do's and don'ts*

- ✓ DO press your heels into the foot plate rather than allowing them to lift up.
- ✓ DON'T lower your thighs past parallel with the foot plate or allow your knees to shoot in front of your toes.
- ✓ DON'T arch your back off the pad to help move the weight.
- ✓ DON'T lock your knees when your legs are straight.

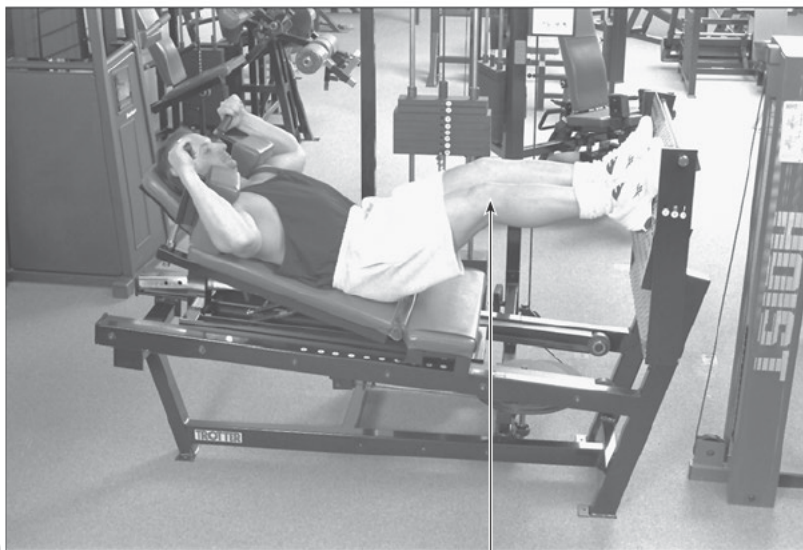
### *Other options*

**Different types of machines:** You may run across several types of leg press machines. One has you sitting in an upright position, pressing your legs out straight. Another is called a 45-degree leg press: You lie in a reclining position and press up and out diagonally. Yet another version has you lie on your back and press your legs straight up. All these variations are acceptable. Just remember: Don't bend your legs so far that your thighs are smooshed against your chest and your knees are hanging out there in Never Never Land. Keep in mind that your foot position can change the emphasis of the exercise. The higher you place your feet on the foot platform, the more you emphasise your butt muscles.

**Modified Leg Press (Easier):** If you have chronic knee problems, you can still do this exercise. Set the seat height so that your thighs are 5 to 10 centimetres above parallel — this position limits the distance you can bend your knees. However, this version focuses more on your front thigh muscles and less on your butt.



A)



B)

**Figure 14-5:**  
Don't lower  
your thighs  
past parallel  
with the  
foot plate.

Don't lock your knees.

**One-leg Leg Press (Harder):** Use the same form as with the basic version of this exercise with one foot lifted up and off the foot plate. After you complete your reps, switch legs.



## Kneeling Butt Blaster



The Kneeling Butt Blaster works your butt with some emphasis on your hamstrings, too. Make sure that you keep your abdominals pulled in on this exercise, especially if you're prone to **lower back** discomfort.

### Getting set

Kneel on your elbows and knees on top of a thick towel, with your knees directly under your hips and your elbows under your shoulders. Clasp your hands together or turn your palms towards the floor. Flex your right foot so that it is perpendicular to the floor. Tilt your chin slightly towards your chest, and pull your abdominals in so that your back doesn't sag towards the floor. See photo A of Figure 14-6.

### The exercise

Keeping your knee bent, lift your right leg and raise your knee to hip level. Then slowly lower your leg back down. Between repetitions, your knee should almost, but not quite, touch the floor. Complete all the repetitions with one leg before switching sides. See photo B of Figure 14-6.



### Do's and don'ts

- ✓ DO keep your neck still and your shoulders relaxed.
- ✓ DON'T throw your leg up in the air; do move slowly.
- ✓ DON'T raise your knee above hip height or arch your back as you lift your leg.

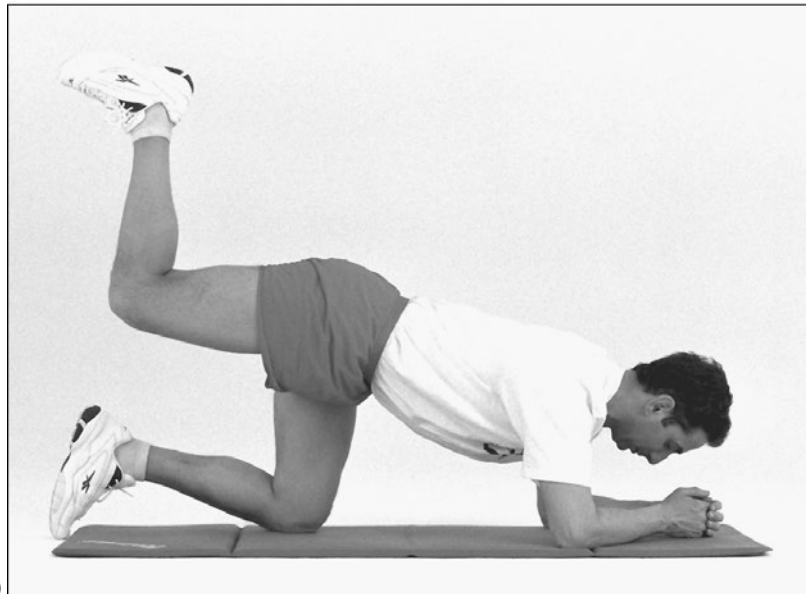
### Other options

**Kneeling Butt Blaster with Weight (Harder):** Add an ankle weight to this exercise or squeeze a small dumbbell in the well of your knee. We love this last option because your muscles have to work even harder to hold the weight in place.

**Butt Blaster machine:** This machine mimics the Kneeling Butt Blaster. You kneel with one knee on a platform, place your other foot onto a foot plate, and then press back and up. This is a fine machine as long as you remember to keep your abdominals pulled in and resist arching your lower back.



A)



B)

**Figure 14-6:**  
Don't arch  
your back  
as you lift  
your leg.



## Dumbbell Step-ups

The Step-up focuses on your quadriceps muscles and your gluteus maximus muscles. If this exercise bothers your **knees**, try the modified version or choose a different exercise.

### Getting set

Stand in front of a stable step or bench no higher than knee height, such as an aerobic step or weight bench, with your knees no wider than shoulder-width apart. Holding a dumbbell by either side, place your leading foot onto the bench or step. Your back should be straight and your core switched on. See photo A of Figure 14-7.

### The exercise

Put your entire weight onto your leading leg, and push up onto it, until your leading leg is straight and you are standing on the bench. Without transferring any weight onto your trailing leg, place that foot onto the bench also, then step back down to the ground, trailing leg first. See photo B of Figure 14-7. Do between 8 and 15 repetitions on each leg before swapping.

### Do's and don'ts

- ✓ DO make sure that your leading knee is pointing in the same direction as your foot throughout the movement.
- ✓ DO move slowly; don't cheat by 'popping' up with the momentum of your body weight.
- ✓ DON'T let your knee shoot past your toes.

### Other options

**Step-up (Easier):** Complete the same movement without dumbbells. This can be a great way to familiarise yourself with the exercise when attempting it for the first time.

**Reverse Dumbbell Step-up (Easier):** Instead of starting with your feet on the ground, start standing on the bench and step down.

**Dumbbell Step-up with Shoulder Press (Harder):** Instead of holding the weights by your side, press them upwards above your head using the technique we describe under 'Seated Supported Dumbbell Shoulder Press' in Chapter 10.



A)



B)

**Figure 14-7:**  
Starting  
position for  
Dumbbell  
Step-ups  
(A). This  
exercise  
recruits  
the same  
muscles you  
use to climb  
stairs (B).

## *Leg Extension machine*



The Leg Extension machine zeroes in on your quadriceps muscles. If this exercise bothers your **knees**, try the modified version or choose a different exercise.

### *Getting set*

Set the machine so that your back sits comfortably against the backrest, the centre of your knee is lined up with the machine's pulley, and your shins are flush against the ankle pads. (On most machines you can move the

back rest forward and back and the ankle pads up and down.) Sit down and swing your legs around so that your knees are bent and the tops of your shins are resting against the underside of the ankle pads. Hold on to the handles. Sit up tall and pull your abdominals in. See photo A of Figure 14-8.

### *The exercise*

Straighten your legs to lift the ankle bar until your knees are straight. Hold for a second at the top position, and then slowly bend your knees. See photo B of Figure 14-8.

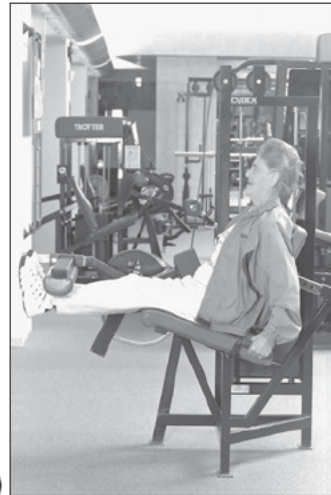


### *Do's and don'ts*

- ✓ DO make sure you take the time to set the machine properly.
- ✓ DO move slowly; don't ram your knees at the top of the movement.
- ✓ DON'T arch your back in an effort to help you lift the weight.



A)



B)

**Figure 14-8:**

Don't arch your back in an effort to help you lift the weight.

### *Other options*

**Modified Leg Extension (Easier):** If one leg is noticeably stronger than the other, slide one leg out of the way and do this exercise one leg at a time. You probably will need less than half the weight you use when lifting both legs together.

**Single-leg Extension:** Many leg extension machines have a mechanism you can set to limit the distance that you can bend and straighten your legs. Use this device if your knees give you trouble at any point of the exercise.

**Ball Squeeze Leg Extension (Harder):** Place a soccer ball, weighted ball, or rolled-up towel between your knees. As you extend your leg, concentrate on squeezing the ball so it does not slip out of place. This version of the exercise forces your quads to work harder in order to hold onto the ball.



## Kneeling Leg Curl

The Kneeling Leg Curl targets your hamstring muscles. Pay extra attention to good form if you have **lower back** or **knee** troubles.

### Getting set

Kneel on your elbows and knees on a mat or thick towel, with your knees directly under your hips and your elbows directly under your shoulders. Clasp your hands together or turn your palms toward the floor. Flex your right foot so that it is perpendicular to the floor. Keeping your knee bent, lift your right leg and raise your knee up to hip level. Tilt your chin slightly toward your chest and pull your abdominals in so your back doesn't sag. See photo A of Figure 14-9.

### The exercise

Straighten your leg and then bend your knee. Complete all of the repetitions with one leg before switching sides. See photo B of Figure 14-9.



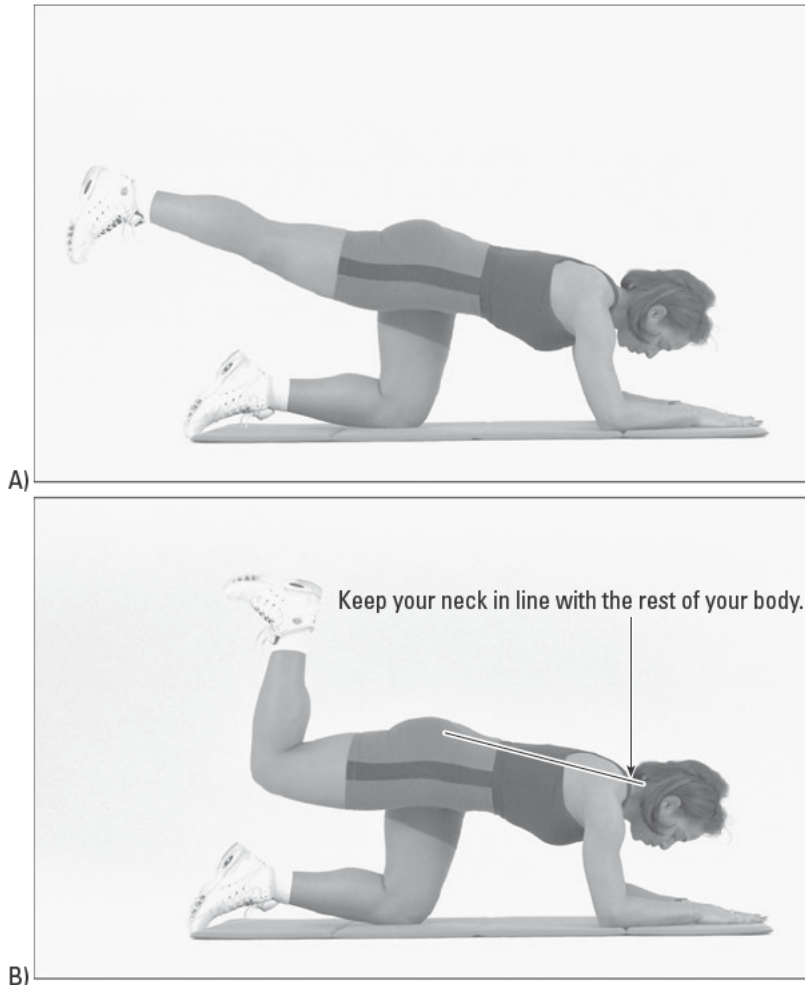
### Do's and don'ts

- ✓ DO keep your neck still and your shoulders relaxed.
- ✓ DON'T use an ankle weight for this exercise: It places too much pressure on your knee.
- ✓ DON'T just throw your leg out straight and snap it back again; do move slowly so that you feel the tension in the back of your thigh.
- ✓ DON'T raise your leg above hip height or arch your back as you curl and uncurl your leg.

### Other options

**Variations (Easier):** To make this exercise easier, lie on the floor with your forehead resting on your forearms. Lift your thigh slightly off the floor, and then curl and uncurl. Or do this exercise while standing and holding onto the back of a chair or the back of an upright bench with your hands.

**Weighted Leg Curl:** You can add weight to this exercise by wrapping an ankle weight around your ankle or thigh. Or, do a kneeling or standing version of the exercise with the low pulley of a cable machine that has a padded ankle strap.



**Figure 14-9:**  
Don't arch  
your back  
as you curl  
and uncurl  
your leg.

## *Leg Curl machine*

The Leg Curl machine does a great job of strengthening your hamstring muscles. Use caution if you have a history of **lower back** discomfort.

### *Getting set*

Set the ankle pads of the machine so that when you lie on your stomach, the underside of the pads are flush with the tops of your heels. Lie down, rest the side of your face on the support pad and grasp the handles. Gently flex your feet. Pull your abdominals in and tuck your hips down so that your hip bones press into the pad. See photo A of Figure 14-10.

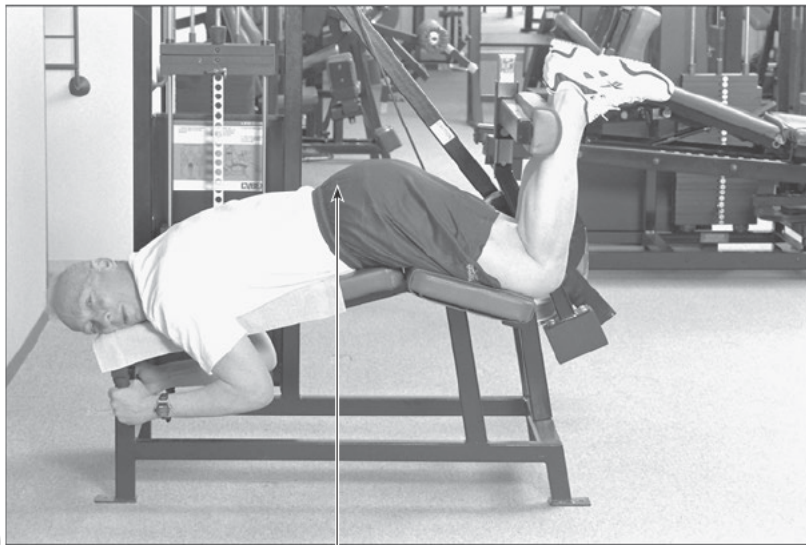


*The exercise*

Bend your knees to lift the ankle bar until your calves are perpendicular to the floor. Then slowly straighten your legs. See photo B of Figure 14-10.



A)



B)

**Figure 14-10:**  
Don't let  
your butt  
pop off  
the pad.

Don't let your hips pop up.





### *Do's and don'ts*

- ✓ DO keep your hip bones pressed against the machine and your abdominals pulled in. You may want to lift your thighs just a hair upwards before you bend your knees.
- ✓ DO lower your legs back down slowly so the weights you are lifting don't slam down against the rest of the stack.
- ✓ DON'T — and this is a *big* don't — allow your butt to pop off the pad. This puts stress on your lower back and minimises the work being done by your hamstrings.
- ✓ DON'T kick your heels all the way to your butt.

### *Other options*

**Other Curl machines:** Some machines work your hamstrings from a standing or seated position. Others have independent left and right sides so that each leg has to carry its own share of the weight. Still others have a 'range limiting' device that allows you to cut off the movement at the top or bottom — a good variation if you are experiencing any pain while doing this exercise.

**Single-leg Curl:** Lift with both legs, straighten one out of the way, and lower the weight down with one leg only.

## *Inner/Outer Thigh machine*

The Inner/Outer Thigh machine can be set to strengthen either your inner thigh muscles or your outer thigh muscles. Skaters, skiers, basketball players — anyone involved in side-to-side movements — can help prevent injury by using this machine.

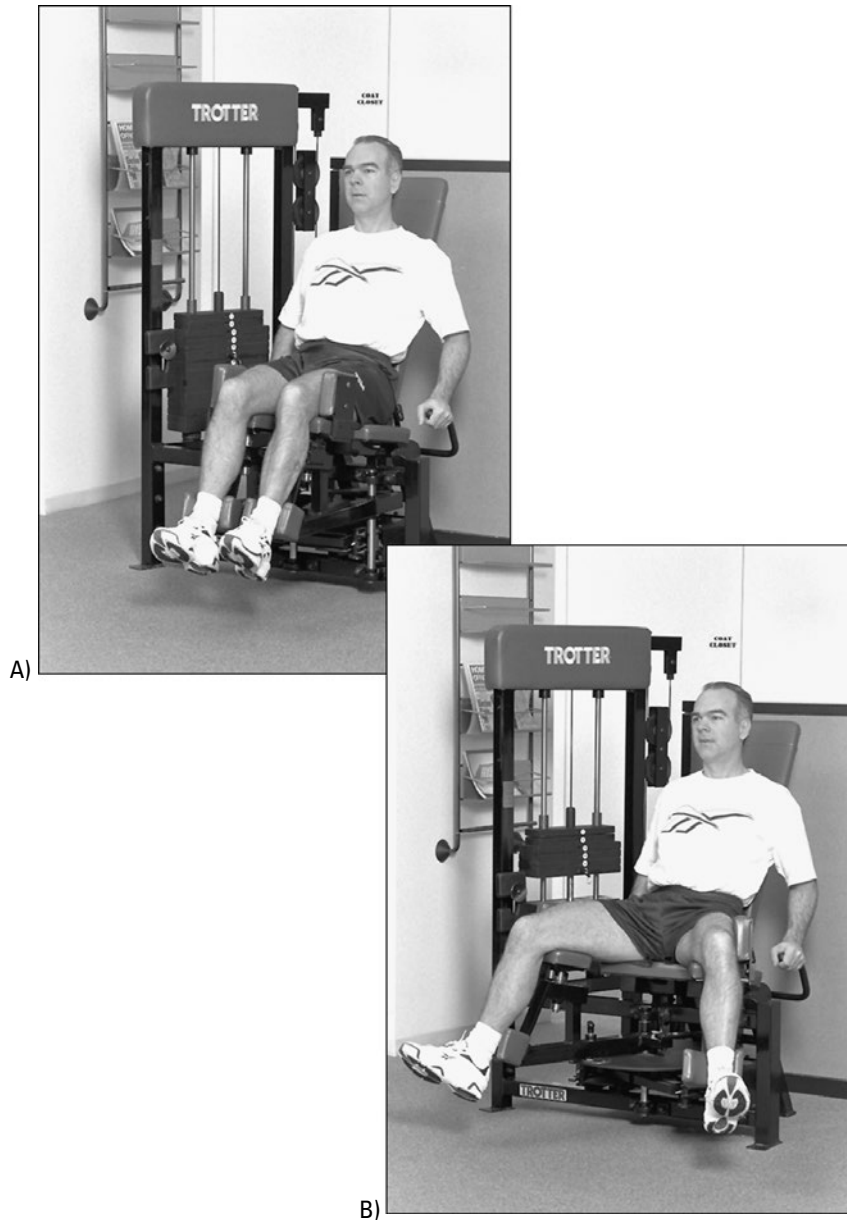
### *Getting set*

Set the machine so that the leg mechanisms are together and the knee and ankle pads are rotated to the outside. Sit up tall in the seat, and bend your knees so that they rest against the thigh pads and the outside of your ankles rest against the ankle pads. Switch your core on and sit up tall. See photo A of Figure 14-11.

### *The exercise*

Press your knees outwards until you feel tension in your outer thighs. Hold the position for a moment, and then slowly allow your legs to move back together. This is the outer thigh, or *abduction* exercise. To set the machine for the inner thigh, or *adduction*, exercise, shift the leg mechanisms so your legs are comfortably spread apart, and turn the knee and ankle pads

towards the inside. Position your legs so that the inside of your knees rest against the thigh pads, and the inside of your ankles rest against the ankle pads. Pull your legs together, and then slowly move them back out to a point at which you feel a comfortable stretch through your inner thighs. See photo B of Figure 14-11.



**Figure 14-11:**  
Control the  
movement  
in both  
directions.



### *Do's and don'ts*

- ✓ DO control the movement in both directions. If you hear the weight stack come crashing down, slow down.
- ✓ DO change the weight between exercises if you need to. Most people use approximately the same weight for both inner and outer thigh exercises, but don't take that for granted.
- ✓ DON'T arch your back or wiggle around in the seat in an effort to assist your legs.

### *Other options*

**Vary seat position:** Some machines allow you to decline the seat back a few degrees or even all the way down so you can lie flat. Experiment with different back positions to see what's most comfortable for you and to give the exercise a different feel.

## *Side-lying Leg Lift*



The Side-lying Leg Lift strengthens your outer thigh muscles. Pay attention to the instructions marked by the Posture Patrol icon, particularly if you have a history of **lower back** pain.

### *Getting set*

Lie on the floor on your left side with your legs 5 to 10 centimetres in front of you, knees bent slightly, and head resting on your outstretched arm. Bend your right arm and place your palm on the floor in front of your chest for support. Align your right hip directly over your left hip and pull your abdominals in so your back isn't arched. See photo A of Figure 14-12.

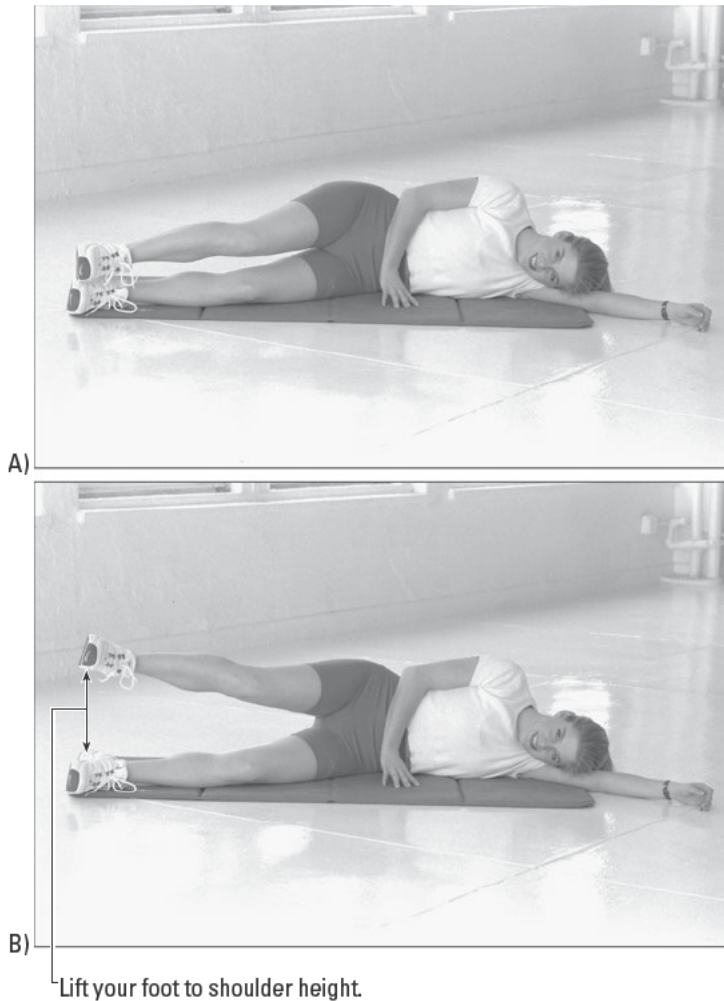
### *The exercise*

Keeping your knee slightly bent, raise your right leg until your foot reaches shoulder height. Then slowly lower your leg back down. Switch sides and do the same number of repetitions with your left leg. See photo B of Figure 14-12.



### *Do's and don'ts*

- ✓ DO keep your top hip stacked directly over your bottom hip; don't roll backwards.
- ✓ DO keep your head down and your neck and shoulders relaxed.
- ✓ DO keep your abdominals pulled in to help your body remain still so that you work only your outer thigh.
- ✓ DON'T raise your foot any higher than shoulder height.



**Figure 14-12:**  
Keep your top hip stacked directly over your bottom hip; don't roll backwards.

### *Other options*

**Modified Leg lift (Easier):** Bend your top knee even more when performing the Side-lying Leg Lift.

**Leg Lift with Rotation (Harder):** When you reach the top of the movement, rotate your thigh outward by turning your knee up to the ceiling; then rotate back to the original position and lower your leg back down.

**Leg Lift with a Weight (Harder):** Place an ankle weight on your ankle or, if you have knee problems, on top of your thigh.

## Standing Calf Raise

The Standing Calf Raise hones your calf muscles.

### Getting set

Stand on the edge of a step. (Or, if you have a step aerobics platform, place two sets of risers underneath the platform.) Stand tall with the balls of your feet firmly planted on the step and your heels hanging over the edge. Rest your hands against a wall or a sturdy object for balance. Stand tall with your abdominals pulled in. See photo A of Figure 14-13.

### The exercise

Raise your heels 5 to 10 centimetres above the edge of the step so that you're on your tiptoes. Hold the position for a moment, and then lower your heels back down. Lower your heels below the platform in order to stretch your calf muscles. See photo B of Figure 14-13.



### Do's and don'ts

- ✓ DO lift as high as you can onto your toes.
- ✓ DO lower your heels down as much as your ankle flexibility will allow.

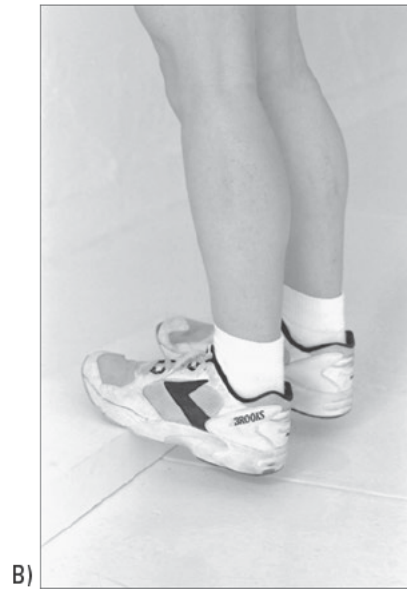
### Other options

**Standing Calf machine:** Stand with your shoulders snugly underneath two pads and your heels hanging off the edge of a platform. The standing calf machine isolates the gastrocnemius. If you want to get your soleus into the act (and you do if you do a lot of activities that involve walking, running or jumping), look for a seated calf machine. Your knees fit underneath a platform and your heels again hang off the edge.

**Add a Dumbbell (Harder):** Holding a dumbbell in one hand adds resistance to this exercise and also forces you to balance more because you won't be able to hold onto something with both hands.

**One-leg Calf Raise:** To work one calf at a time, bend one knee behind you and raise the heel of your other foot up and down. Do the same number of repetitions with each leg.

**Figure 14-13:**  
Lift as high  
as you  
can onto  
your toes.



## Toe Lift

If you're prone to ankle problems, adding the Toe Lift to your repertoire is definitely worth considering.

### Getting set

Stand with your feet as wide as your hips and your legs straight but not locked. You may hold on to a sturdy object for support. See photo A of Figure 14-14.

### The exercise

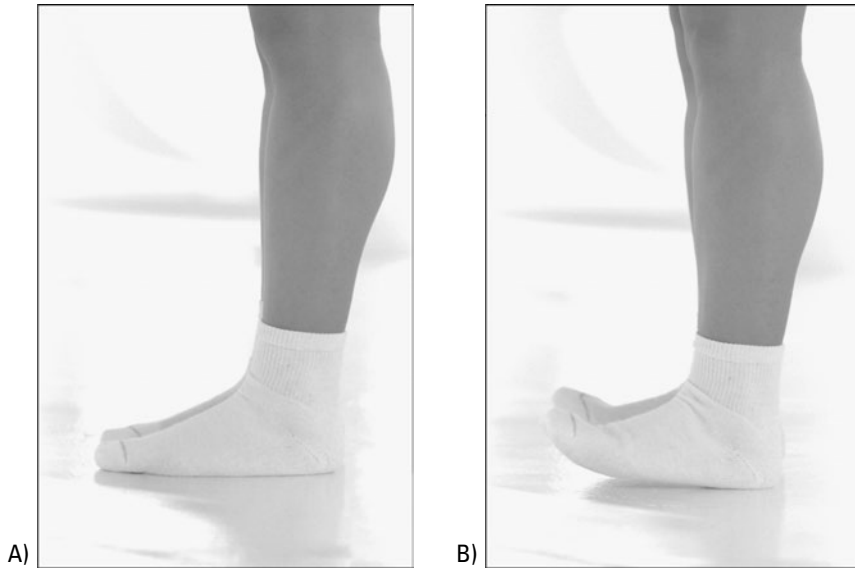
Keeping your heels firmly planted into the floor, lift your toes as high as you can. You should feel a tightening through the lower part of your shins. Lower your toes. See photo B of Figure 14-14.



### Do's and don'ts

- ✓ DO lift only the part of your foot that's in front of the ball of your foot.
- ✓ DON'T rock back onto your heels.

**Figure 14-14:**  
Don't rock  
back onto  
your heels.



### *Other options*

**Seated Toe lift (Easier):** Do the Toe Lift while seated with your knees bent.

**Exercise Sequence (Harder):** Do the Toe Lift immediately following Calf Raises.

**Band Toe lift (Harder):** Do the Toe Lift while seated, but wrap a band around the back edges of your toes. You'll feel resistance both when lifting your toes and lowering them. (Don't use the band to help lift though.)





## Chapter 15

# Advanced Weight Training Exercises

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### *In This Chapter*

- ▶ Heeding important safety cautions
  - ▶ Performing advanced weight training exercises
- 

You may think that ‘advanced’ weight training exercises require lifting barbells heavier than your average four-wheel drive. And you may think that these exercises are appropriate only for hardcore bodybuilders who have been pumping iron practically since birth.

Not true on either count! Many of the exercises that experienced lifters perform at the gym are perfectly suitable for lifters with four to six months of consistent weight training experience. Sure, as a relative newcomer, you will be lifting a lot less weight than the monster-sized guys and girls. But you can perform the same motions and look almost as cool doing them.

These moves are impressive to perform, especially if you do them with textbook form, and they will earn you the respect of your friends, family and co-workers. Okay, maybe not. But your street credibility is likely to go up among other gym members, especially those who haven’t yet mastered these exercises. If you’re not yet ready for these moves, consider them something to aim for.

Of course, we’re not recommending the exercises in this chapter simply because they have a high macho factor. They also happen to be exceptionally effective at developing strength and, in many cases, coordination. Most are *compound exercises*, which means that they work several muscle groups at once and build strength that translates well into everyday life tasks. For instance, the Military Push-up uses your chest, shoulders and triceps the exact same way you’d use them if you were

pushing a lawnmower or shopping trolley. A few of the exercises in this chapter work only one muscle group, but we include them here because they're tougher than comparable moves shown in other chapters.

We've added these advanced exercises to give you even more ways to vary your routine. Just make sure you heed the cautions that follow. The advanced moves are tougher to perform correctly than most of the exercises shown elsewhere in the book. They therefore carry a greater risk of injury, so it's essential that you perform them correctly.

## *Important Safety Cautions*

We strongly recommend that you get at least a few months of regular weight training under your belt before you attempt the exercises in this chapter. Even then, you may want to skip some — or all — of them. For instance, if you have even the slightest hint of lower back pain, avoid the Deadlift. If you're unsure whether other exercises are appropriate for you, consult a trainer. (Chapter 5 tells you how to determine whether a trainer is qualified to help you.)

Pay particular attention to the Joint Cautions listed in the beginning of each exercise description, and follow these important safety tips:

- ✔ **Add only one advanced exercise to your routine at a time.** If, after a week or two, you have mastered the move and don't feel any discomfort, go ahead and add another advanced exercise to your repertoire.
- ✔ **Start with a very light weight and focus on form, form, form.** Performing these exercises with the proper technique is far more important than attempting to push around heavy weight.
- ✔ **Do only one set of each new exercise for the first two workouts.** Then, if you want to, gradually add another set or two. How many sets you add and how quickly you add them depends on your goals and abilities.
- ✔ **If the basic version of an exercise is too challenging at first, don't sweat it.** Try one of the easier modifications, which are designed to help you build up to the real thing. For instance, if you can't do the Chin-up on your own, start the modification that involves standing on a chair with one leg. After a few weeks, there's a good chance you'll have worked your way up to doing at least a few fully fledged Chin-ups.

- ✔ **Use a spotter, preferably a trainer or very experienced lifter.** Your spotter can help you get in and out of the starting position, offer technique tips, and, of course, save your muscles and joints from destruction if something goes wrong and you're not able to complete the exercise. (We tell you all about spotting in Chapter 2.) Even if you've already mastered the technique for an advanced move, enlist a spotter when you're moving to a significantly heavier weight. Some of these exercises, such as the Deadlift and Barbell Squat, should *never* be done without a spotter.
- ✔ **If something hurts, don't do it!** If you hear a ripping sound as you reach down to grab the bar for the Military Press, that's a pretty good indication that this exercise isn't for you.

## Exercises in This Chapter

Here's a look at the advanced exercises described in this chapter:

- ✔ Chin-up
- ✔ Push-up
- ✔ Dip
- ✔ Military Press
- ✔ Preacher Curl
- ✔ French Press
- ✔ Barbell Squat
- ✔ Stiff-legged Deadlift
- ✔ Hanging Abs

### Chin-up



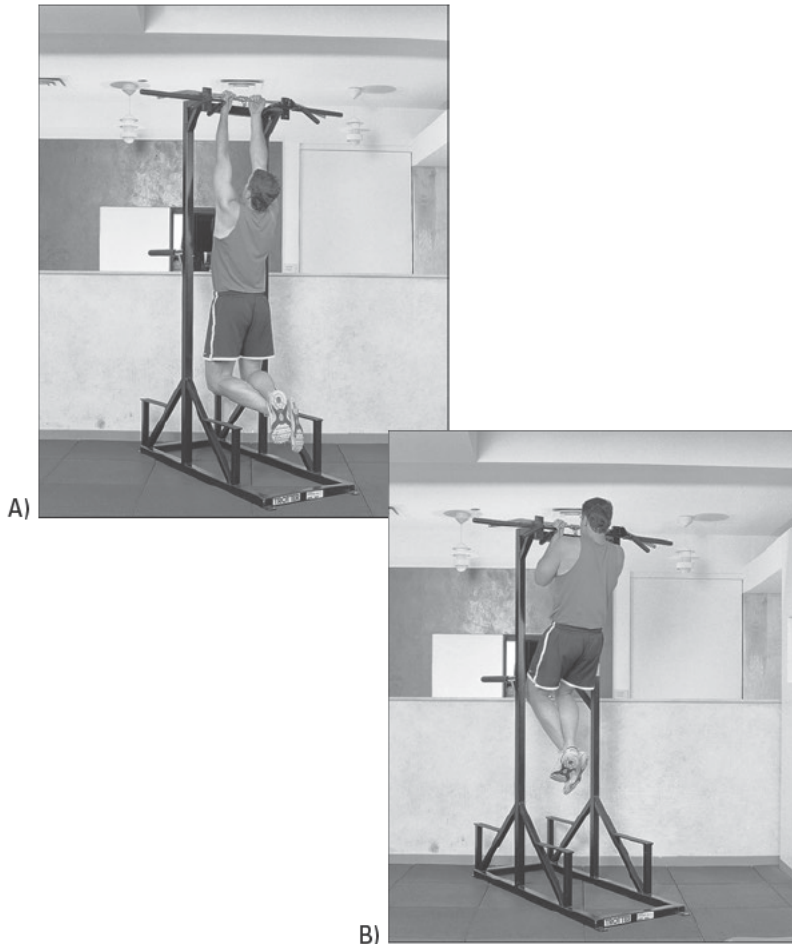
The Chin-up targets your upper back, with additional emphasis on your shoulders, biceps and wrists. Be careful if you have **lower back** or **shoulder** problems.

**Getting set**

You can do Chin-ups with a pull-up bar, a chin/dip frame or by placing a barbell in one of the upper positions of a power rack or Smith machine. Stand underneath the bar and grab it with your palms facing you and hands slightly closer than shoulder-width apart. Switch your core on and keep your body tall. See photo A of Figure 15-1.

**The exercise**

Hoist your chest up to the bar by bending your arms; don't contort or swing your body to help out. Slowly lower yourself until your arms are fully straightened before beginning the next rep. See photo B of Figure 15-1.



**Figure 15-1:**  
Don't rock  
your body to  
help move  
you up and  
down.

B)



### *Do's and don'ts*

- ✓ DO keep your legs straight and together. (However, if the bar is too low, you may have to bend your knees.)
- ✓ DO relax your shoulders so they don't hunch up by your ears.
- ✓ DON'T rock your body to help move you up and down.
- ✓ DON'T arch your back or round forward.

### *Other options*

**Chin-up with a Chair (Easier):** Stand on a chair with one leg hanging off to the side. As you lower your body, bend the knee of the leg that's on the chair. As you raise yourself, straighten your leg. Use only as much leg strength as you need to help you through the exercise.

**Pull-up (Harder):** Grasp the bar with your palms facing forward and your arms spread 5 to 10 centimetres wider than shoulder-width apart. Always lift your chest — rather than the back of your neck — up to the bar. (Behind-the-neck pull-ups are very hard on your shoulders and rotator cuff muscles.)

## *Push-up*



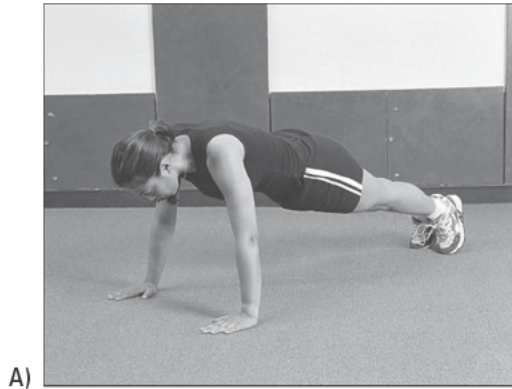
The Push-up strengthens your chest muscles, with emphasis on your shoulders and triceps as well. Be extra careful if you have **lower back, shoulder, elbow** or **wrist** problems.

### *Getting set*

Lie face-down with your legs straight out behind you. Bend your elbows and place your palms on the floor a bit to the side and in front of your shoulders. Straighten your arms and lift your body so that you're balanced on your palms and the underside of your toes. Tuck your chin about 5 centimetres toward your chest so that your forehead faces the floor. Tighten your abdominals. See photo A of Figure 15-2.

### *The exercise*

Bend your elbows and lower your entire body at once. Rather than try to touch your chest to the floor, lower only until your upper arms are parallel to the floor. Push back up. See photo B of Figure 15-2.



**Figure 15-2:**  
Keep your abs tight so your back doesn't arch like a swayback horse.



### *Do's and don'ts*

- ✓ DON'T lock your elbows at the top of the movement, but do bring your arms to a full extension.
- ✓ DON'T do the dreaded head bob. That's when you dip your head toward the floor without moving any other part of your body. Talk about a giant pain in the neck!

### *Other options*

**Negative Push-up (Easier):** Just do the lowering phase of this exercise. Slow the movement down and try to lower yourself in five counts. Or try the Modified Push-up, shown in Chapter 9.

## Dip



Dips work your tricep muscles but also place a lot of emphasis on your shoulders and chest. Take extra care with this exercise if you have **lower back** or **shoulder** issues.

### Getting set

Stand facing a dip station, and place your hands on the dip bars. Hop up so that your feet are off the floor. Straighten your arms and lift your body upwards. Keep your legs straight, or bend your knees slightly and cross one ankle over the other. Remain tall and relaxed with your core switched on. See photo A of Figure 15-3.

### The exercise

Bend your elbows and lower your body only until your upper arms are parallel to the floor. Straighten your arms to lift yourself back up. See photo B of Figure 15-3.



### Do's and don'ts

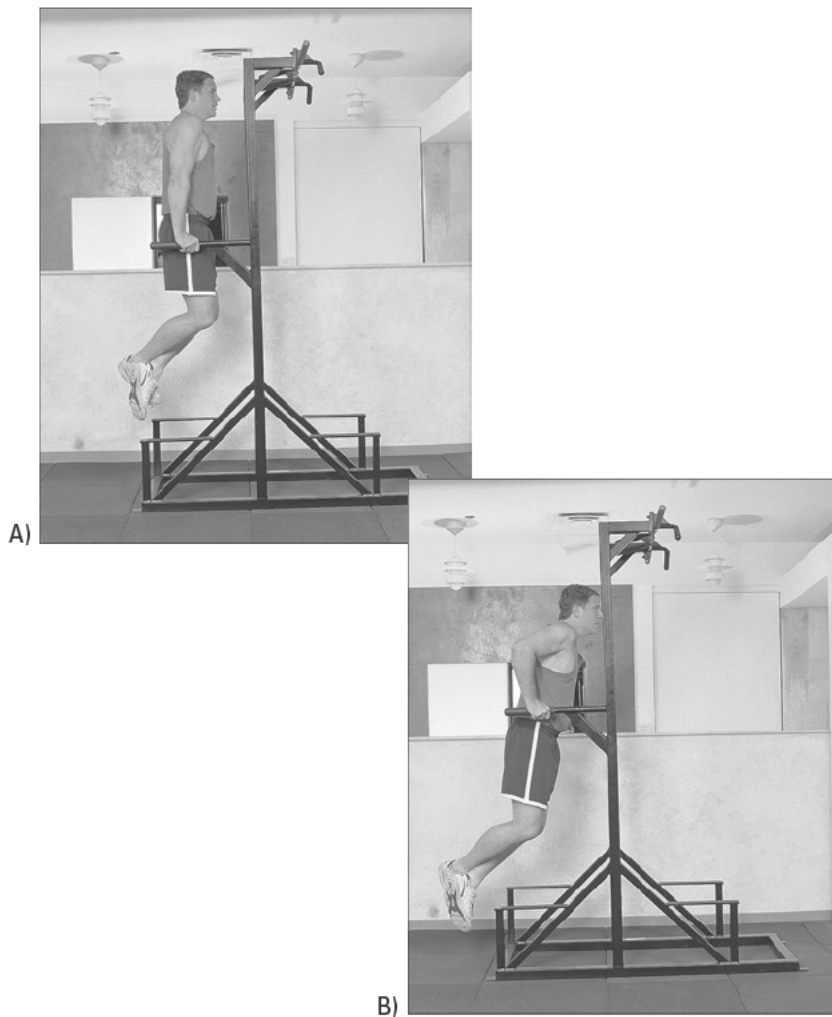
- ✓ DO keep your abdominals pulled in so that your back doesn't arch.
- ✓ DO keep your neck aligned with the rest of your spine rather than allow your chin to jut forward.
- ✓ DON'T bend your elbows too far. This places a great deal of strain on your elbows and shoulders.

### Other options

**Assisted Dip (Easier):** Have a partner hold your feet and assist you upwards. Or, try the Assisted Dip, described in Chapter 11.

**Negative Dip (Easier):** If you can't push yourself back up, do only the downward part of this exercise. Lower yourself slowly, taking about five slow counts to complete the movement.

**Weighted Dip (Harder):** Do the basic version of the exercise with a special waist belt designed to hold a weight plate on the end of it.



**Figure 15-3:**  
Lower your  
body only  
until your  
upper arms  
are parallel  
to the floor.

## *Military Press*



The Military Press targets the top and centre of your shoulder muscles. This exercise also works your upper back and triceps. Use caution if you have **lower back, neck or elbow** problems.



**Getting set**

Sit on a bench with back support just behind a barbell that is set on stanchions higher than chest level. Place your hands on the bar with your palms facing forward, arms slightly wider than shoulder-width apart, and elbows slightly below your shoulders. Lift the bar off the safety rack and slowly straighten your arms to press the bar up. Pull your abdominals inward and keep your back against the support. See photo A of Figure 15-4.



A)



B)

**Figure 15-4:**  
Don't lower  
the bar  
behind your  
neck.

*The exercise*

Lower the bar towards the top of your chest until your elbows are just below shoulder height. Press the bar back up. See photo B of Figure 15-4.

*Do's and don'ts*

- ✓ DO keep your head and back against the pad rather than let your head dip forward or your back arch off the support.
- ✓ DO keep your elbows relaxed at the top rather than locking them.
- ✓ DON'T lower the bar behind your neck. This puts a lot of stress on your shoulders and rotator cuff.
- ✓ DON'T wiggle or squirm around in an effort to press the weights up.

*Other options*

**Smith Machine Military Press (Easier):** Do the same exercise using the bar of a Smith machine or power cage. The frame will help guide the bar. You can also set the range-limiting device to ensure you don't lower the bar too far.

*Preacher Curl*

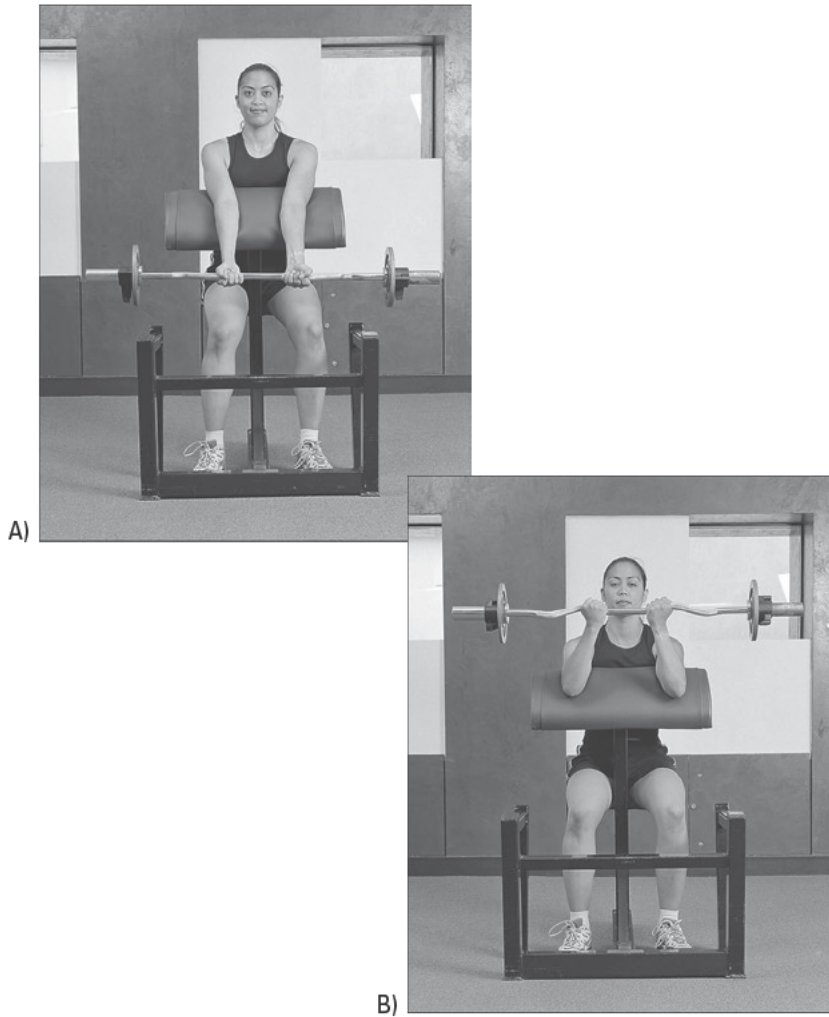
The Preacher Curl targets your biceps. Use caution if you have **elbow** problems.

*Getting set*

Place an EZ-curl bar in the cradle of the preacher bench. Set the seat of the bench so that your chest rests comfortably on the support pad and you can easily reach over the top of the bench to grasp the bar. Sit down on the seat of the preacher curl bench with your feet firmly planted on the floor. Grasp the bar on the outside curves with your palms facing up. Pull your abdominals in, and keep your shoulders down and relaxed. See photo A of Figure 15-5.

*The exercise*

Bend your arms and lift the bar upwards until your hands are level with your shoulders. Straighten your arms to lower the bar. See photo B of Figure 15-5.



**Figure 15-5:**  
Remain seated rather than popping up as you lower the bar.



### *Do's and don'ts*

- ✓ DO lower the bar slowly rather than letting it drop quickly downward.
- ✓ DO remain seated throughout the exercise; don't pop up as you lower the bar.

- ✓ DON'T lean back or wiggle around to lift the bar.
- ✓ DON'T lower the bar to a full arm extension as this may place undue stress on your joints. Do leave a small bend in your elbow at the end of the movement.

### *Other options*

**Cable Preacher Curl:** Attach a straight or curved bar to the low pulley of a cable column, and place the preacher bench so that it is facing the pulley. Perform the same exercise as the basic version using the cable instead of the EZ-Curl bar.

**Scott Curl (Easier):** This is a machine version of the Preacher Curl. It's a good option to help you build up enough strength to perform the Preacher Curl.

## *French Press*



The French Press targets your triceps. This exercise tends to aggravate **elbow** injuries if you use too much weight or don't use proper form.

### *Getting set*

Grasp an E-Z-curl bar with an overhand grip and your hands about shoulder-width apart. (You can do the French Press using a straight bar, although you'll need to concentrate more on steadying the bar.) Lie face-up on the bench with your feet on the floor. Straighten your arms up to raise the bar directly over your shoulders. Pull your abdominals in and keep the back of your head firmly on the bench. See photo A of Figure 15-6.

### *The exercise*

Keeping your upper arms still and your elbows in, bend your elbows and lower the bar toward your forehead. Then straighten your arms to raise the bar back up overhead. See photo B of Figure 15-6.

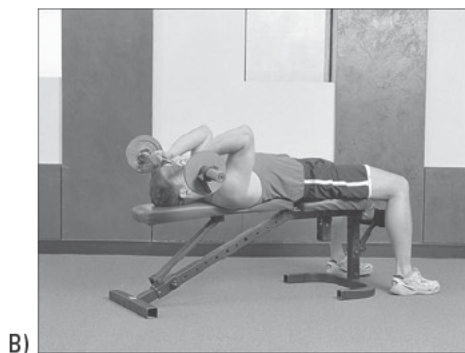
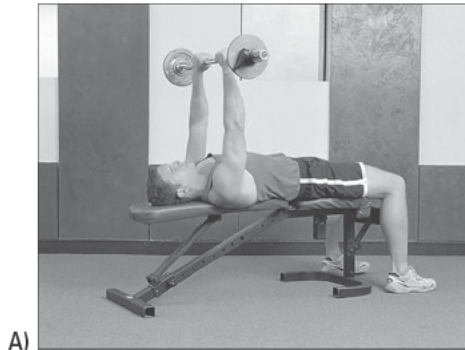


### *Do's and don'ts*

- ✓ DO squeeze your elbows together.
- ✓ DO keep your upper arms in exactly the same position throughout the motion.
- ✓ DO lower the bar slowly and stop just short of touching your forehead so that you don't clunk yourself in the head with the weight!
- ✓ DON'T arch your back up off the bench to help move the weight.

### Other options

**Dumbbell French Press:** Lying on a bench, hold a dumbbell in each hand and straighten your arms directly over your shoulders with your palms facing each other. Keep your upper arms still, and bend your elbows to lower the weights until they are alongside either ear. Then press the weights back up to the starting position.



**Figure 15-6:**  
Keep your upper arms in the same position throughout the motion.

## Barbell Squat



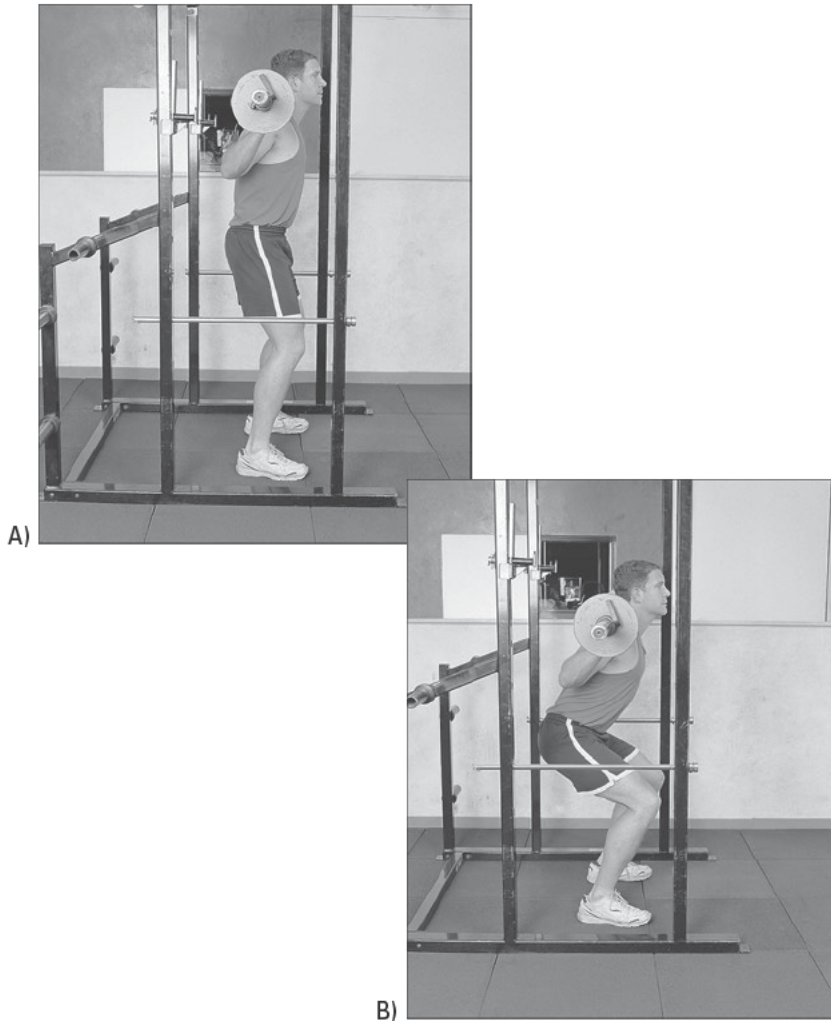
In addition to strengthening your butt muscles, the Barbell Squat also works your quadriceps and hamstrings. Take extra care if you have **hip**, **knee** or **lower back** problems.

### Getting set

Place a weighted bar in a power cage so that when you stand underneath it, the bar rests gently across the top of your shoulders. Stand with your feet as wide as your hips, weight shifted slightly back on to your heels, and hold on to either side of the bar with your hands wider than shoulder-width apart. Switch your core on and stand up tall with square shoulders. See photo A of Figure 15-7.

***The exercise***

Sit back and down, as if you're sitting into a chair. Lower as far as you can without leaning your upper body more than 5 to 10 centimetres forward. Don't lower any further than the point at which your thighs are parallel to the floor, and don't allow your knees to shoot out in front of your toes. Once you feel your upper body fold forward over your thighs, straighten your legs and stand back up. Take care not to lock your knees at the top of the movement. See photo B of Figure 15-7.



**Figure 15-7:**  
Don't let  
your knees  
travel  
beyond your  
toes.





### *Do's and don'ts*

- ✓ DON'T allow your knees to travel beyond your toes.
- ✓ DON'T allow your body to fall forward. It helps to keep your eyes focused forward.
- ✓ DON'T shift your body weight forward so that your heels lift off the floor. When you push back up to the standing position, concentrate on pressing through your heels.
- ✓ DON'T arch your back as you stand back up.

### *Other options*

**Smith Machine Squat (Easier):** Do this exercise with a Smith machine. The guides help you maintain balance and keep you in a fixed position.

**Front Squat (Harder):** Rather than placing the bar behind your neck, place it across the top of your chest. You can hold it there by crossing your arms and placing your hands on the bar to keep it resting gently across your shoulders. Because this version of the Squat requires a lot of balance and coordination, we strongly recommend you do this exercise with a spotter or with a Smith Machine.



## *Stiff-legged Deadlift*

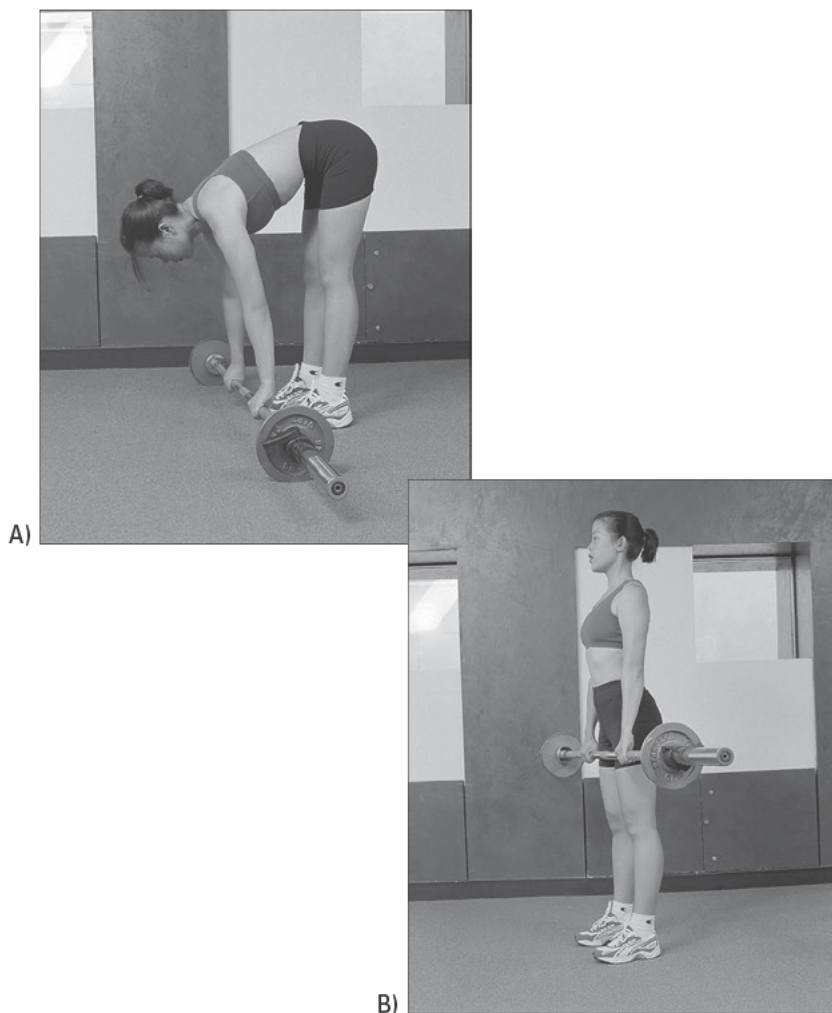
This exercise strengthens your hamstrings, buttocks and lower back. Avoid this exercise if you have **lower back** problems.

### *Getting set*

Place a barbell just in front of your feet, and stand tall with your feet as wide as your hips. Bend from the hips and grasp the bar so that your palms are facing you and your hands are approximately shoulder-width apart. Pull in your abdominals. See photo A of Figure 15-8.

### *The exercise*

Keeping your arms and legs straight, stand and lift the bar until it is resting against the tops of your thighs. Carefully bend over to lower the bar. See photo B of Figure 15-8.



**Figure 15-8:**  
Don't arch  
or round  
your lower  
back, as  
shown here.



**Do's and don'ts**

- ✓ DO be sure to pull your abdominals inward.
- ✓ DO move slowly and carefully. *Never* jerk the bar upward or plop it back down on the floor.
- ✓ DON'T arch or round your lower back.



### *Other options*

**Bent-Knee Deadlift (Easier):** Do this exercise with your knees slightly bent. This version will not emphasise your hamstrings as much but will be easier on your lower back.

**Platform Deadlift (Harder):** Do this exercise while standing on a step bench or low platform. If you have enough flexibility, you will be able to lower the bar beyond the level of your feet.

## *Hanging Abs*

This exercise is a real ab burner; it works the rectus abdominals, obliques and transverse abdominals.

### *Getting set*

Slide your arms into two padded loops suspended on a bar or a frame. Keep your feet together and let your legs hang downward directly below your body. Pull your abdominals inward. See photo A of Figure 15-9.

### *The exercise*

Keeping your feet together, slowly bend your knees and lift them toward your chest. Slowly straighten your legs back down. See photo B of Figure 15-9.



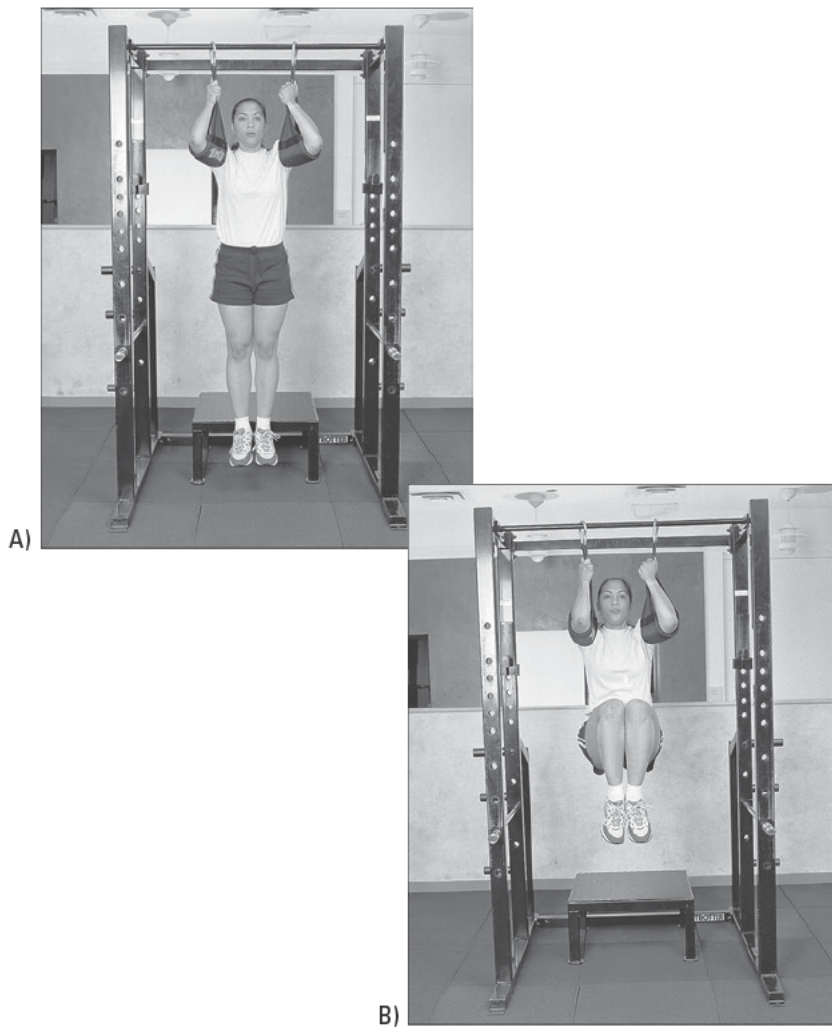
### *Do's and don'ts*

- ✓ DO move slowly so that your abdominals do all the work and you don't rely on momentum.
- ✓ DO keep your torso still and stabilised against the back pad.
- ✓ DON'T hunch your shoulders upward or dip your chin forward.

### *Other options*

**One-leg Hanging Abs (Easier):** Lift one knee at a time.

**Straight-leg Hanging Abs (Harder):** This extremely difficult version of the exercise calls for you to straighten your legs up and outward until your legs are parallel to the floor. We don't recommend this version for anyone with lower back problems.



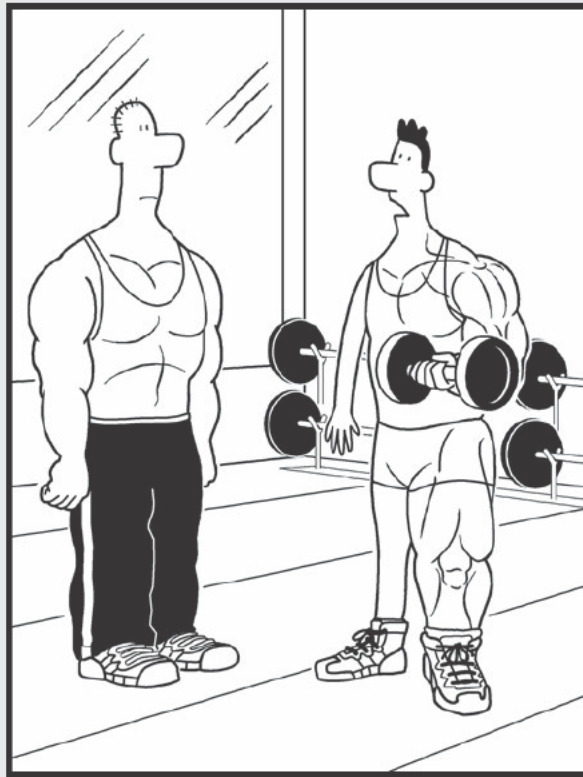
**Figure 15-9:**

Move slowly so that your abs do the work and you don't rely on momentum.

# Part IV

# Designing Your Workout Program

*Glenn Lumsden*



*'I keep missing every other  
day's training.'*

## *In this part ...*

**P**art IV shows you how to custom-design your workout program — whether you lift weights twice a week or five times, whether you have 20 minutes or 2 hours, or whether your goal is to build strong bones or biceps the diameter of a watermelon. In this part, we give you the basic recipe for effective weight workouts — a list of the ingredients essential to all routines. Then we help you tinker with the recipe to concoct routines that suit your personal needs, and we describe plenty of training techniques to give your workouts extra pizzazz. We also show you how to structure your routines if you lift weights more than three times per week.

## Chapter 16

# Designing a Basic Workout

### *In This Chapter*

- ▶ Developing a key weight training vocabulary
- ▶ Performing repetitions
- ▶ Knowing how many sets to do
- ▶ Understanding the essential elements of a weight routine
- ▶ Custom-designing your routine
- ▶ Sampling routines that strengthen your whole body

**I**n the chapters in Part III, we describe more than 160 exercises. Certainly we don't expect you to do all of the moves in one workout — your workouts would last longer than the TV Week Logie Awards. So how do you choose?

Consider that weight training is a lot like cooking: part science, part art. Baking is governed by certain immutable rules — for instance, you can't cook oatmeal biscuits without flour. However, there's no limit to what ingredients you can *add* to your oatmeal biscuits, whether it's raisins, cinnamon, chocolate chips, blueberries or nutmeg. The biscuit recipe you choose on a given day depends on a lot of things, including your taste preferences, the ingredients you have in the house and how much time you have.

The same principles apply to weight training routines. You've got your basic rules — you can't develop a well-toned body without chest exercises, for example. But you can pick from a whole variety of chest exercises. You can do them sitting, standing or lying down. You can use dumbbells, barbells, machines or no equipment at all. You can do one chest exercise or six.

In this chapter, we give you a basic recipe for effective weight workouts — a list of the ingredients essential to all routines. Then we help you fiddle with the recipe to create routines that are based on your own goals, preferences, time schedule and available equipment. We also include a number of sample beginner routines. All the workouts in this chapter strengthen the entire body. In Chapter 17, we include more advanced routines that focus on specific body parts.

## Jargon You Actually Need to Know

Weight training has its fair share of gobbledegook. You don't need to be fluent in the language spoken at bodybuilding competitions and physiology conferences, but to design an effective workout, you do need to know the basics. In this section, we explain key strength training terminology.

✓ **Repetition:** This term, often shortened to *rep*, refers to a single rendition of an exercise. For example, pressing two dumbbells straight above your head and then lowering them back down to your shoulders constitutes one complete repetition of the Seated Supported Dumbbell Shoulder Press (refer to Chapter 10).

Anyone who lifts weight for general fitness, should perform 4-second repetitions — 2 seconds to lift the weight and 2 seconds to lower it. Don't pause for more than a split second at the end of a repetition. Each rep should flow seamlessly into the next. Athletes and those who are lifting for extreme strength or bulk may do slower or faster reps depending on their goals.

✓ **Set:** A *set* is a group of consecutive repetitions that you perform without resting. When you've done 12 repetitions of the Seated Supported Dumbbell Shoulder Press and then put the *weights* down, you have completed one set. If you rest for a minute and then perform 12 more repetitions, you have done two sets.

✓ **Routine:** This is a broad term that encompasses virtually every aspect of what you do in one weight lifting session, including the type of equipment you use; the number of exercises, sets and repetitions you perform; the order in which you do your exercises; and how much rest you take between sets. By varying the elements of your routine — say, decreasing the number of reps or adding new exercises — you can significantly change the results you get from weight training. Your routine (also referred to as your program or your workout) can change from one exercise session to the next, or it can stay the same over a period of weeks or months.

## The Rap on Reps

The number of repetitions you perform matters a lot. In general, if your goal is to build the largest, strongest muscles that your genetic makeup allows, perform relatively few repetitions, about 4 to 6 (perhaps even fewer). If you're seeking a more moderate increase in strength and size — for example, if your goal is to improve your health or shape your muscles — aim for 8 to 15 repetitions.

Performing reps in the 8 to 15 range also gives you something that a low-rep routine doesn't: *Muscular endurance*, in other words, the ability of that muscle to perform longer. Muscular endurance comes in handy for everyday tasks like carrying a heavy box from your house to the car. Don't confuse muscular endurance with *cardiovascular endurance*, which is the stamina of your heart and lungs. Muscular endurance affects only the muscle in question and lasts only a minute or two; you improve the staying power of one muscle rather than the stamina of your entire body.

Why does performing 6 reps result in more strength than doing 15 reps? Because the number of reps you perform is linked to the amount of weight you lift. Always use a weight that's heavy enough to make that last repetition a real challenge, if not an outright struggle. So when you perform 6 reps, use a much heavier weight than when you perform 15 reps of the same exercise. If you were to perform only 6 reps with a weight that you were capable of lifting 15 times, you wouldn't develop much strength.

Weight training isn't an exact science, so don't take these rep numbers too literally. It's not as if performing 6 repetitions will transform you into an Amazonian warrior, whereas performing 10 reps will make you look like Sarah Murdoch. Everyone's body responds a bit differently to weight training.

Bodybuilders (who aim for massive size) and powerlifters (who aim to lift the heaviest weight possible) often train by hoisting so much weight that they can perform only 1 or 2 reps. However, most of us have goals that are best served by doing between 6 and 15 repetitions. Performing fewer reps — and thus using ultra-heavy weights — carries a greater risk of injury. And doing more than 15 reps is generally not effective for building strength. To keep yourself motivated and your muscles challenged, you may want to vary the number of reps you perform. For example, you could do 6 to 8 repetitions one month and then 12 to 15 the next.

Finding the right weight for each exercise requires some trial and error. Don't be afraid to add or subtract weight after you start a set. We've seen people contort their bodies to finish a set just because they overestimated what they could lift but were too embarrassed to drop down a plate.

## *The Scoop on Sets*

Beginners should start with one set for each of the major muscle groups listed in the next section. That's roughly 11 sets per workout. After a month or two, you may want to increase the number of sets. But then again, you may not. If your goal is to gain moderate amounts of strength and improve your health, one set may be as much as you ever need to do.

However, if your goal is to become as strong as you can or reshape an area of your body, you need to perform more than three sets per muscle group. Some serious weight lifters perform as many as 20. (However, they don't do 20 sets of the same exercise; they may do five sets each of four different exercises that work the same muscle.) See Chapter 17 for more guidelines on how many sets to perform if you're an experienced lifter.

Beginners should take all the rest they need between sets. Most people find that 60 to 90 seconds is enough to feel fully recovered from the previous set. As you get more fit, you can gradually decrease your rest periods. *Circuit training* (described later in this chapter) involves taking little or no rest between sets.

## *Essential Elements of a Weight Routine*

If an orchestra were to play Vivaldi's *Four Seasons* minus the string section, the piece would lack a certain vitality and depth. Likewise, if you leave out a key element of your weight workout, you may end up with disappointing results. So follow the guidelines below.

### *Work all of your major muscle groups*

Be sure that your routines include at least one exercise for each of the following muscle groups. (In the chapters in Part III, we show you precisely where each muscle is located.)

- ✓ Butt (glutes)
- ✓ Front thighs (quadriceps)
- ✓ Rear thighs (hamstrings)
- ✓ Calves
- ✓ Chest (pecs)
- ✓ Back
- ✓ Shoulders (delts)
- ✓ Front of upper arm (biceps)
- ✓ Rear of upper arm (triceps)
- ✓ Abdominals (abs)



In Part III, we include exercises for additional muscle groups, such as the wrist and shin muscles and inner and outer thighs. But for general fitness, the preceding muscles should be your highest priorities. If you neglect any of these muscle groups, you'll have a gap in your strength, and you may set yourself up for injury.

If you avoid training any particular muscle group, you also may end up with a body that looks out of proportion. You don't need to hit all your muscle groups on the same day — just make sure you work each group twice a week. In Chapter 17, we discuss several ways you can split up your workouts.

## *Do the exercises in the right order*

In general, work your large muscles before your small muscles. This practice ensures that your larger muscles — such as your butt, back and chest — are sufficiently challenged. Suppose that you're performing the Dumbbell Chest Press, shown in Chapter 9. This exercise primarily works your chest muscles, but your pecs do require assistance from your shoulders and triceps. If you were to work these smaller muscles first, they'd be too tired to help out the chest.

In order to perform your exercises in the right order, you need to understand which exercises work which muscle groups. Many people do their routines in the wrong sequence because they don't realise the purpose of a particular exercise (the purpose is not always obvious). When you pull a bar down to your chest, as in the Lat Pulldown (see Chapter 8), you may think that you're doing an arm exercise when, in fact, the exercise primarily strengthens your back. So, make a point of learning which muscles are involved in each move that you do.

When choosing the sequence of a workout, imagine that your body is divided into three zones: upper, middle and lower. Within each zone, do your exercises in the following order. Feel free to mix exercises from different zones.

### *Upper body*

1. Chest and back (it doesn't matter which comes first)
2. Shoulders
3. Biceps and triceps (in whatever order you prefer)
4. Wrists

### *Middle body*

You can perform your abdominal and lower back muscle exercises in any order you want.

### *Lower body*

1. Butt
2. Thighs
3. Calves and shins (it doesn't matter which you do first although we prefer to work our calves before our shins)

## *Don't exercise the same muscle two days in a row*

Always let a muscle rest at least one day between workouts. This doesn't preclude you from lifting weights two days in a row; you could work your chest and back one day and then your legs the next. But if you're doing a full-body routine, don't lift weights more than three times a week and don't cram your three workouts into one weekend.

## *How to Custom-design a Routine*

You've probably read magazine articles that reveal an athlete or actor's weight training routine. Often, the stories imply that if you follow the routine to the letter, you too can become a sculpted celebrity — or at least look like one. Don't buy into this notion. Everyone has a unique genetic makeup — and a unique set of preferences and priorities. You certainly can pick up good ideas from reading about other people's workouts, but you're better off designing your own routines by taking the following elements into consideration.

### *Your goals*

Too many people blindly go through the motions of a weight training program without stopping to ask themselves, 'What the heck am I trying to accomplish?' So give this question some serious thought. Are you planning to scale the Snowy Mountains, or do you just want to strengthen your back to add oomph to your golf swing?

Here's a rundown of some common goals and suggestions for how you can reach each of them. You may want to consult a trainer or medical doctor for advice that's even more specific to your needs.

- ✔ **Goal: Improve your health.** If you aspire to increase your strength, keep your bones strong and avoid common injuries, you need not spend half your waking hours with hunks of steel in your hands. You can get by with one exercise for every major muscle group in your body. Simply do one set of 8 to 15 repetitions for each muscle listed earlier in this chapter. We recommend doing two or three workouts a week.
- ✔ **Goal: Alter your looks.** Weight training can be a powerful tool for changing your appearance, whether you're looking to do a major overhaul or simply aiming to tone your triceps. But don't get carried away with any fantasies. Keep in mind the old joke about the 75-year-old woman who walks into a hair salon with a picture of a 20-year-old model. 'I want to look like *this*,' she says. 'Lady,' the hairdresser replies, 'I'm a hairdresser, not a magician.' If you're large boned and muscular, weight training cannot make you lean and lithe — and vice versa. You need to work within your body's parameters.

Significantly changing your looks requires more of a time commitment than simply improving your health. (And keep in mind that your diet and cardiovascular workouts play a large role, too.) Instead of training your entire body in 20 minutes, you may need to spend 20 minutes simply on your upper body. To develop a noticeably firmer body, we suggest performing at least three sets per muscle group. To build some serious bulk, you may need to perform even more sets and use some of the advanced techniques we describe in Chapter 17.

By the way, don't expect to look like the sculpted, fat-free people who sell weight training products on TV infomercials. Many of these people have unusual genetics, have taken drugs and/or have undergone surgery to achieve their looks.

- ✔ **Goal: Train for an athletic event.** Preparing for an athletic challenge at any level takes time and dedication (and weight training, of course, is just one aspect of your training). For best results, you need to tailor your weight routine precisely to the event. For example, if you're working towards a hilly 10 kilometre walk or run, you need to give extra attention to your leg and butt muscles. And your workout will be very different if you want to simply complete a 10 km run rather than win it. Serious competitors should expect to spend a lot of serious time in the weight room at certain times of the year (primarily the off-season).

## Your equipment

Naturally, the exercises you choose are limited to the equipment that's available to you. If you belong to a health club the size of a department store, you may be able to try every exercise in this book — and probably a few thousand more.

If you work out at a smaller club or at home, your choices are more limited, but even with rudimentary equipment, you can get your body into great shape. In Part III, for example, we describe dozens of exercises that you can do at home with nothing more than dumbbells and a bench. If you're short on equipment, you may want to consult a trainer to find out how to make the most of the gizmos you have access to.

## Your exercise preferences

When you first take up weight training, you may be overwhelmed by the challenge of learning the basics of each exercise — how to stand, where to grab the weight, how to adjust the machines. But you soon develop strong preferences for certain exercises and equipment. Before you know it, you'll be saying things like, 'I love the Seated Chest Press Machine, but I'd much rather do the Dumbbell Chest Press on a flat bench.' Pay attention to which exercises feel good to you and which equipment you enjoy using, and design your workout accordingly.

## Your lifestyle

Ask yourself (and answer honestly): 'How many times can I work out each week? How many hours can I spend at the gym, including time in the shower and the locker room?' If you're a busy parent who also works full time, chances are you have less time to work out than a university student or retired person.



Be realistic. Don't vow to do six sets per muscle group if the only time you can lift weights is during your 30 minute lunch break on Tuesdays and Thursdays. Otherwise, you can fall into that *why-bother?* trap. You're better off doing a 20-minute routine than skipping that 2-hour workout you planned but somehow never got around to.

## *Your current level of fitness*

If you haven't lifted weights since high school 20 years ago, don't start with the routine your old football coach gave you. Otherwise, you can expect a lot of muscle soreness — and maybe an injury or two — in your immediate future. Don't let your enthusiasm, your flexible schedule or your access to fancy equipment cloud your judgment as you design your routine.

## *Sample Beginner Routines*

Following are just a few of the countless ways you can combine exercises to create an effective weight routine. All these routines include one or two exercises per muscle group.

### *Machine circuit*

Many gyms have a dozen or so machines arranged in a circle or row called a *circuit*. They're placed in a logical order (earlier in this chapter we discuss what's logical), so that you can move from machine to machine without having to use any brain power to decide which exercise to do next. For reasons we explain in Chapter 12, we suggest skipping the abdominal machines and doing the Basic Abdominal Crunch (or other ab floor exercises) instead.

Table 16-1 shows a logical order for using weight machines in a circuit.

<b>Table 16-1</b>	<b>Sample Weight Machine Circuit</b>
Butt and Legs	Leg Press Machine, Leg Extension Machine, Leg Curl Machine
Back	Lat Pulldown
Chest	Seated Chest Press Machine
Shoulders	Shoulder Press Machine
Arms	Arm Curl Machine
Triceps	Assisted Dip Machine
Abdominals	Basic Abdominal Crunch

## *Dumbbells-and-a-bench routine*

For this routine, you need several sets of dumbbells and a bench with an adjustable backrest. This is a typical workout for someone who works out at home, but many gym-goers like it too.

Table 16-2 shows a good routine using dumbbells and a bench.

<b>Table 16-2</b>	<b>Sample Dumbbells-and-a-Bench Routine</b>
Butt and Legs	Squat, Lunge, Standing Calf Raise
Back	One-arm Row, Back Extension
Chest	Dumbbell Chest Press
Shoulders	Lateral Raise
Arms	Dumbbell Bicep Curl, Triceps Kickback
Abdominals	Abdominal Crunch with a Twist

## *The time-crunch routine*

On some days you may not even have 15 minutes to lift weights. Rather than skip your workout altogether, we suggest plan B: the absolute bare minimum. The following workout is for emergency situations only — it's by no means a complete routine. But it can tide you over for a few sessions until you get back on track.

Tables 16-3 and 16-4 show a couple of quicky workouts to do on busy days.

<b>Table 16-3</b>	<b>Time-Crunch Machine Routine</b>
Butt and Legs	Leg Press Machine
Back	Machine Row
Chest	Seated Chest Press Machine
Shoulders	Shoulder Press Machine
Abdominals	Basic Abdominal Crunch

<b>Table 16-4</b>	<b>Time-crunch Dumbbell Routine</b>
Butt and Legs	Squat
Back	One-arm Dumbbell Row
Chest	Dumbbell Chest Press
Shoulders	Seated Supported Dumbbell Shoulder Press
Abdominals	Basic Abdominal Crunch

### *The mix 'n' match routine*

Most experienced weight lifters use a combination of machines and free weights. Over time you develop certain preferences — some exercises feel better with free weights, others are more fun with machines. We encourage you to try all the equipment at your disposal at least a few times.

Tables 16-5 and 16-6 show two combination routines — some machine exercises and some with free weights.

<b>Table 16-5</b>	<b>Liz's Favourite Mix 'n' Match Routine</b>
Butt and Legs	Lunge, Leg Press, Inner/Outer Thigh Machine, Standing Calf Raise
Back	Cable Row
Chest	Push-up
Shoulders	Cable Lateral Raise
Arms	Dumbbell Bicep Curl, Triceps Pushdown, Wrist Curl
Abdominals	Abdominal Crunch

<b>Table 16-6</b>	<b>Suzanne's Favourite Mix 'n' Match Routine</b>
Butt and Legs	Squat, Seated Leg Curl, Standing Calf Raise
Back	Pull-up
Chest	Bench Press
Shoulders	Seated Supported Dumbbell Shoulder Press
Arms	Barbell Bicep Curl, Triceps Kickback
Abdominals	Reverse Crunch

## How to liven up your weight workout

If 'Weight training is boring' starts to become your daily mantra, revisit this page and remind yourself of the numerous ways you can jazz up your routine. Here's a recap of the main components — or variables — you can experiment with. You can change one or several of these variables from month to month, week to week, workout to workout.

- ✔ **Repetitions:** For variety, you could go heavy on Monday, performing 6 reps of each exercise. On Wednesday, you could use lighter weights and perform 12 to 15 repetitions. On Friday, you could use moderate weights and perform 8 to 10 reps. You also can vary your repetitions within a workout. You could do 12 reps on your first set of an exercise, then increase the weight and perform 9 reps on your second set, then increase the weight again, performing 6 reps on your third set.
- ✔ **Sets per muscle group:** Some days you may have the time or inclination to do three or more sets per muscle group; other days, one set may be your limit. If you do multiple sets, try different exercises. For example, if you're doing three sets of shoulder exercises, you could do one set each of the Shoulder Press, Lateral Raise and Front Raise (all described in Chapter 10).
- ✔ **Rest:** Some days, you may want to rest a minute or two between sets so that you

can challenge yourself with relatively heavy weights (or so you can schmooze with your friends). Other days, you may want to zoom through your workout, taking 30 seconds or less between sets. Just remember that the less rest you take, the less weight you'll be able to lift.

- ✔ **Equipment:** Tired of sticking those pins into the weight machines? March over to the free weight room and pick up some dumbbells. You can work almost any muscle group with dumbbells, barbells, machines and rubber exercise bands.
- ✔ **Exercises:** Getting stale? Vary the moves in your repertoire. There are literally hundreds of different ways to strengthen your muscles — and if you can't think of anything different you can always ask that attractive guy/gal at the gym to show you a new lift. Now there's another way to beat the boredom!
- ✔ **Exercise sequence:** As we explain earlier in this chapter, the general rule is to work larger muscles before smaller ones (within each region of your body). But you can still mix up the order plenty. You can vary the order of, say, your three back exercises. You can alternate between upper body and lower body exercises. Or you can work your upper body and then your lower body, or vice versa.



## Chapter 17

# Expanding Your Repertoire

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### *In This Chapter*

- ▶ Putting periodisation into your program
  - ▶ Setting weekly routines
  - ▶ Going about your daily workout
  - ▶ Delving into advanced techniques
- 

You may come to a point in your weight training career when moving through the same 12 weight machines or performing the same old dumbbell exercises is not enough — not enough to keep you interested and not enough to keep giving you results. Out of boredom or disappointment, you may start skipping your workouts. This is a warning sign.

In this chapter, we show you how to move beyond the basics to create a more sophisticated, stimulating weight training program. The strategies we present fall into four basic categories: organising your program from month to month, designing your weekly schedule, arranging your exercises during a particular workout and structuring an individual set.

You can experiment with a couple of the strategies we discuss in this chapter, or you can use every one. Just don't try them all at once. You'll feel less overwhelmed if you incorporate changes one by one. Plus, you can pinpoint more precisely which strategies work for you and which don't. Beginners certainly can benefit from the techniques we discuss here and should read this chapter. But you'll find the strategies here more valuable if you've been lifting weights for at least a month.

## *The Big Picture: Organising Your Program Month to Month*

One excellent strategy for yanking yourself out of a rut is periodisation (another bit of weight training jargon that we feel compelled to foist upon you). *Periodisation* simply means organising your program into different

*periods*, each lasting about four to eight weeks. Each period has a different theme. For example, one month you may use weight machines and the next month you may switch to dumbbells and barbells. Or you can change the number of sets, repetitions and exercises you perform from one period to the next. Athletes use periodisation to vary their weight lifting (and other types of training) from their off season to their competitive season.



Periodisation is more than a fun diversion; this strategy may also give you better results. Consider a recent university study of more than 30 women. Half the women did a typical circuit of 12 weight machines (see Chapter 16 for a definition of circuit), performing one set of 8 to 10 repetitions per machine. They continued this workout three times a week for nine months. The second group engaged in *periodised* training, systematically changing the number of sets, reps and exercises they performed. Initially, the groups showed comparable strength gains. But after four months, the circuit group hit a plateau. The periodisation group continued to make steady progress throughout the nine months.

We recommend that an introductory periodisation program include five distinct phases, each lasting about a month. (However, depending on your goals, each phase can be as short as two weeks or as long as eight weeks.) You can repeat this cycle over and over again. Here's a look at each phase:

- ✔ **The Prep Phase:** During this period, you prepare your body for the challenges ahead with a basic workout. Use light weights, perform 1 to 4 sets per muscle, do 12 to 15 repetitions per set and rest 90 seconds between sets.
- ✔ **The Pump Phase:** In this phase, you step up your efforts a bit. You lift slightly heavier weight, perform 10 to 12 reps per set, do 3 to 8 sets per muscle group, and rest only 60 seconds between sets. The pump phase is a good time to introduce a few of the advanced training techniques we describe later in this chapter, such as super sets and giant sets.
- ✔ **The Push Phase:** In this period, you do 8 to 10 reps per set, resting 30 seconds between sets. You do only two or three different exercises per muscle group, but you do several sets of each so that you can use the advanced training techniques, such as pyramids, that we describe later in this chapter.
- ✔ **The Peak Phase:** In this phase, you focus on building maximum strength. Do 6 to 8 reps per set, 15 to 20 sets per muscle group but fewer different exercises. For instance, you may only do 1 or 2 leg exercises, but you do multiple sets of each exercise and 6 to 8 repetitions per set. Rest a full two minutes between sets so that you can lift more weight. This phase is your last big effort before you take a break from heavy training.



✓ **The Rest Phase:** In this phase, you either drop back to the light workouts you did in the prep phase or you take a break from weight training altogether. Yes, that's right, we're giving you permission to stop lifting weights — for as long as two weeks. Resting gives your body (and your mind) a chance to recover from all the hard work you've been putting in. After your break, you move back into your next periodisation cycle with fresh muscles and a renewed enthusiasm for your training.

If you're hell-bent on toning or building up your body, you may be tempted to skip the rest phase. Don't. If you never rest, at some point your body will start to break down. You stop making progress and you may get injured. If you want to get fit, resting is just as important as working out.

We present just one model of periodised training. The possibilities are endless. Depending on your goals, you may want to emphasise or play down a particular phase. For example, if your aim is to get as strong as possible, spend more time in the peak phase; if you've been lifting weights for years, you can shorten the prep phase or skip it altogether. An experienced and well-educated personal trainer can help you design a periodisation program to meet your needs.

Table 17-1 recaps the five-phase periodisation program.

<i>Phase</i>	<i>Weight</i>	<i>Number of Sets per Muscle Group</i>	<i>Reps per Set</i>	<i>Rest between Sets</i>
Prep	Light	1–4	12–15	1½ min.
Pump	Moderately light	3–8	10–12	1 min.
Push	Moderately heavy	8–15	8–10	30 sec.
Peak	Heavy	15–20	6–8	2 min.
Rest	Complete rest or light weights	0–2	12–15	1½ min.

## Weight Training Week by Week

Periodisation gives you an overall sense of purpose. Now we narrow the focus of our discussion and home in on each week of exercise. Regardless of your goals, you need to hit each muscle group at least twice a week. The simplest way to accomplish this is to perform two *total-body* workouts per week; in other words, twice a week do a routine that works every major muscle group.

Total-body workouts are great if you're doing only one or two exercises per muscle group. But once you get serious about weight training — adding exercises and sets — a total-body workout can become tedious. If your schedule permits you to lift weights at least four days a week (the sessions can be as short as 15 minutes), consider doing a *split routine*. You split a total-body routine into two or three shorter routines. For example, you can train your upper body on one day and your lower body the next. You can even split your upper body muscles into three different workouts. (We discuss these options in detail later in this section.)

Split routines are ideal for people who have the time to work out several days a week but not much time for each workout session. Split routines also work well for people who have a short attention span for weight training or who want to give each muscle group an extra-hard workout. Brief, focused workouts help you stay motivated. If you walk into the gym knowing that all you have to do today is work your back and biceps, you're more likely to give those muscle group exercises an all-out effort.

If you're looking to make some serious changes in your body, split routines are the way to go. As we explain in Chapter 16, transforming your body requires doing at least 3 sets per body part and perhaps as many as 20 sets. Depending on your goals, a total-body workout could take you four hours. By splitting up your routine, you can give all your muscles a good workout because they'll always be fresh.



When designing a split routine, you need to follow two basic rules: Hit each muscle group at least twice a week, and don't work the same muscle group on consecutive days. This second rule is a bit more complicated than it sounds. For example, you may think that it's okay to work your triceps and thighs on Monday and then your chest and butt on Tuesday. Actually, it's not. You see, most chest exercises *also* work the triceps and most butt exercises *also* work the thighs. So, if you work your triceps on Monday, they will not have recovered sufficiently by Tuesday to help out on your chest exercises. These rules may sound confusing, but within a few weeks, they'll

become second nature. Until then, here's a list of muscle pairs that you should not work on back-to-back days:

- ✓ Chest and triceps
- ✓ Back and biceps
- ✓ Butt and thighs

The split routines that we describe in the following sections heed the preceding two basic rules.

## *The upper body/lower body split*

The upper body/lower body split is perhaps the simplest split, a good one for beginners to try. You don't have much to remember: It's pretty obvious which exercises work the muscles above the belt and which work your muscles down south. When you work your upper body one day and your lower body the next, each zone of your body gets more of a complete rest than for any other way you do your split.



People who do the upper/lower split generally train their abdominals with their lower body, but this isn't a hard-and-fast rule. Don't make the mistake of working your abs every workout. Remember, the abs are like any other muscle group: They need time to recover. Two or three abdominal workouts a week will suffice. Table 17-2 shows two sample weekly schedules based on the upper/lower split.

**Table 17-2** Sample Weekly Schedules for Split Routines

<i>Day of the Week</i>	<i>Body Area or Rest Period</i>
<i>Sample Upper/Lower Split #1</i>	
Monday	Upper body
Tuesday	Lower body and abdominals
Wednesday	Rest
Thursday	Upper body
Friday	Lower body and abdominals
Saturday	Rest
Sunday	Rest

(continued)

**Table 17-2 (continued)**

<i>Day of the Week</i>	<i>Body Area or Rest Period</i>
<i>Sample Upper/Lower Split #2</i>	
Monday	Upper body and abdominals
Tuesday	Rest
Wednesday	Lower body and abdominals
Thursday	Rest
Friday	Upper body and abdominals
Saturday	Rest
Sunday	Lower body

Tables 17-3 and 17-4 are two examples of the exercises you can include in your upper body/lower body split routine — one routine is for beginners and one is for more experienced lifters.

**Table 17-3**      **Sample Exercises for Basic Upper Body/Lower Body Split Routine**

<i>Body Part</i>	<i>Exercises</i>
<i>Upper Body</i>	
Back	Lat Pulldown, Machine Row, Pelvic Tilt
Chest	Dumbbell Chest Press, Seated Chest Press Machine
Shoulders	Seated Supported Dumbbell Shoulder Press, Lateral Raise
Biceps	Hammer Curl, Concentration Curl
Triceps	Triceps Pushdown, Triceps Kickback
<i>Lower Body</i>	
Butt and Legs	Squat, Lunge, Leg Extension Machine, Leg Curl Machine, Inner and Outer Thigh Machines, Standing Calf Raise Machine
Abdominals	Basic Abdominal Crunch, Bent Knee Side Crunch

**Table 17-4**      **Sample Exercises for Advanced Upper Body/Lower Body Split Routine**

<i>Body Part</i>	<i>Exercises</i>
<i>Upper Body</i>	
Back	Chin-up, Lat Pulldown with Triangle Grip, Cable Row, Back Extension
Chest	Bench Press, Seated Chest Press Machine, Modified Push-up, Cable Crossover
Shoulders	Military Press, Lateral Raise, Back Delt Fly, Internal and External Rotation
Biceps	Barbell Bicep Curl, Preacher Curl, Alternating Dumbbell Bicep Curl
Triceps	Triceps Pushdown, French Press, Bench Dip
<i>Lower Body</i>	
Legs	Barbell Squat, Backward Lunge, Stiff-Legged Deadlift, Leg Extension Machine, Leg Curl Machine, Inner/Outer Thigh Machine, Single-leg Calf Raise
Abdominals	Hanging Abs, Reverse Crunch, Abdominal Crunch with a Twist

## *Push/pull split routine*

This type of split separates your upper body *pushing* muscles (the chest and triceps) from the upper body muscles involved in *pulling* (your back and biceps). You can do your lower body and abdominal exercises on either day or on a separate day altogether. Or you can include your legs with your pushing muscles and your abdominals with your pulling muscles.

Savvy readers will notice that we have not mentioned where your shoulders fit into the push/pull split. There's no simple answer because shoulders don't fit neatly into either the push or the pull category; the shoulders are partially involved in both movements. Where you work in your shoulders is a matter of personal preference. Some people like to work their shoulders right after their chest muscles. Others like to do shoulder exercises after their back exercises. Still others prefer to divide their body into three workouts: back and biceps; chest and triceps; shoulders, legs and abs.

Push/pull split routines are popular among experienced exercisers who really want to go to town with each muscle group. You may see people spend two hours just working their back and biceps. However, other people feel unbalanced after one of these routines because they worked only one side of their torso. Table 17-5 shows some sample push/pull split routine schedules.

<b>Table 17-5 Sample Push/Pull Split Routine Schedules</b>	
<i>Day of the Week</i>	<i>Body Area or Rest Period</i>
<i>Sample Four-day Workout</i>	
Day 1	Chest, triceps and shoulders
Day 2	Back, biceps, abdominals and lower body
Day 3	Rest
Day 4	Chest, triceps and shoulders
Day 5	Rest
Day 6	Back, biceps, abdominals and lower body
Day 7	Rest
<i>Sample Five-day Workout</i>	
Day 1	Chest and triceps
Day 2	Back and biceps
Day 3	Shoulders, lower body and abdominals
Day 4	Rest
Day 5	Chest, triceps and shoulders
Day 6	Back, biceps, lower body and abdominals
Day 7	Rest

Table 17-6 suggests exercises to include for each of the four main push/pull split combinations. You can mix and match these combinations to fit the workouts that we describe for the weekly schedules in Table 17-5.



<b>Table 17-6 Sample Exercises for Push/Pull Split Routines</b>	
<i>Body Parts</i>	<i>Exercises</i>
<i>Back and Biceps</i>	
Back	Assisted Pull-up, Lat Pulldown, Cable Row, One-arm Row, Back Extension
Biceps	Barbell Biceps Curl, Concentration Curl, Arm Curl Machine
<i>Chest and Triceps</i>	
Chest	Bench Press, Seated Chest Press Machine, Cable Crossover, Push-up
Triceps	Triceps Pushdown, Triceps Kickback, Assisted Dip Machine
<i>Shoulders</i>	
Shoulders	Seated Supported Dumbbell Shoulder Press, Cable Lateral Raise, Front Raise, Back Delt Fly, Internal/External Rotation
<i>Lower Body and Abdominals</i>	
Legs	Lunge, Leg Press Machine, Leg Extension Machine, Leg Curl Machine, Inner/Outer Thigh Machine, Standing Calf Raise
Abdominals	Rolling Like a Ball, Reverse Crunch, Oblique Crunch

## *Ideas for Organising Your Daily Workout*

Now we're going to narrow our focus even further. Once you decide that you're going to work, say, your chest, triceps and shoulders on Monday, you need to decide the order in which to do the exercises. In Chapter 16, we explain that you should work your large muscles before your smaller ones within each zone of your body. However, you still have plenty of options. Certain exercise sequences can save you time by reducing the amount of rest you need between sets; other sequences take longer but give your muscles a tougher challenge. Use the suggestions in the following sections to vary the order of your exercises.

## Super sets

Doing a *super set* simply means performing two different exercises without resting between the sets. There are two types of super sets, each with a different purpose:

- ✓ **Same-muscle super sets:** You do consecutive sets of different exercises that work the same muscle group. For example, go immediately from the Dumbbell Chest Press to the Cable Crossover, rest for a minute, and then do the Press + Crossover sequence again. This type of super set really challenges the muscle in question. Just when your pecs think that they've completed a job well done — Bam! You blindside them with another exercise right away.

You can do super sets with just about any two exercises. Keep in mind that you'll probably use less weight than usual on the second exercise because your muscles are already fairly tired. You may want to enlist a spotter if you're doing super sets that involve lifting a weight directly over your face or head.

Table 17-7 shows some super set combinations. You can string them all together to form a whole super set workout. Or you can insert any number of these combinations into your workout.

- ✓ **Different-muscle super sets:** With this type of super set, you do back-to-back exercises that work different muscles. For example, go from a front thigh exercise directly to a rear thigh exercise. This type of super set is a great way to speed up your routine because it cuts back on the rest you need to take during a routine. Your front thighs rest while you perform the rear thigh exercise, and vice versa. Table 17-8 shows a sample different-muscle super set routine.

**Table 17-7**      **Sample Same-muscle Super Set Routine**

<i>Body Parts</i>	<i>Exercise Combinations</i>
Butt and Legs	Squat + Lunge
Back	Lat Pulldown + Machine Row
Chest	Bench Press + Push-up
Shoulders	Seated Supported Dumbbell Shoulder Press + Lateral Raise
Biceps	Barbell Bicep Curl + Dumbbell Bicep Curl
Triceps	French Press + Bench Dip
Abdominals	Basic Abdominal Crunch + Legs-up Crunch with a Twist

**Table 17-8**      **Sample Different-muscle Super Set Routine**

<i>Body Parts</i>	<i>Exercise Combinations</i>
Butt and Legs + Chest	Leg Press + Seated Chest Press Machine
Back + Quadriceps	Dumbbell Shrug + Leg Extension Machine
Shoulders + Hamstrings	Shoulder Press + Leg Curl Machine
Biceps + Legs	Barbell Bicep Curl + Calf Raise
Triceps + Abdominals	Triceps Pushdown + Basic Abdominal Crunch
Wrists + Lower back	Wrist Curl + Back Extension

## *Giant sets*

Giant sets take the super set idea one step further: Instead of doing two consecutive sets of different exercises without rest, you string *three* exercises together. For example, for a killer abdominal workout, you could link together three different abdominal exercises, rest, and then repeat the sequence. Or, to save time in your workout, you could move from a back exercise to a chest exercise to a butt exercise. Table 17-9 shows some of our favorite giant sets that you can work into your routines.

**Table 17-9**      **Suggested Giant Exercise Sets**

<i>Body Parts</i>	<i>Exercise Combinations</i>
Abdominals	Basic Abdominal Crunch + Reverse Crunch + Abdominal Crunch with a Twist
Butt and Legs	Leg Press Machine + Leg Extension Machine + Leg Curl Machine
Back	Lat Pulldown + Cable Row + Seated Back Machine
Chest	Dumbbell Chest Press + Vertical Chest Press Machine + Cable Crossover
Shoulders	Shoulder Press + Front Raise + Lateral Raise

## Circuits

A *circuit* is a routine in which you do one set each of several exercises, taking little or no rest between sets. Then you repeat the whole shebang as many times as you want. The typical circuit uses weight machines because they save you time. (In Chapter 16, we list exercises for a typical weight machine circuit.) However, you can create your own circuit using free weights or a free weight/machine combination. Here are some basic rules to keep in mind when designing your circuit workout:



- ✓ Try to alternate upper, lower and middle body (abdominal and lower back) muscles so that no single muscle group gets tired too quickly. However, you also can do opposing muscle groups in the same region of the body, such as chest and back or quadriceps and hamstrings.
- ✓ Switch between lying, standing, and seated exercises very carefully. Moving from one posture to another too quickly can cause sudden changes in blood pressure, which can cause you to feel dizzy or pass out.
- ✓ Even though you're moving quickly between exercises, don't speed up the repetitions within a set. Good form still applies.



- ✓ Expect to use about 20 per cent less weight than usual for each exercise because you're moving so fast. Sure, your front thighs are resting while you work your rear thighs, but your whole body, including your heart and lungs, is still working at a pretty quick pace.
- ✓ Don't do circuits more than once a week. Circuit training is a good way to pull yourself up out of a rut, but you won't gain as much strength from working out this way.

## Advanced Training Techniques

After you choose which exercises to do and what order to do them in, you still have a few decisions to make. Suppose that you're going to perform three sets on the Leg Extension machine. Are you going to perform the same number of repetitions for each set? Or do you want to decrease the number of repetitions from one set to the next so that you can lift more weight?

## Pyramids



If you have the time or inclination to perform at least five sets of an exercise, consider a pyramid. You start with a light weight and then gradually work your way up to the heaviest weight you can lift for 1 or 2 repetitions. Or you could do a modified pyramid. Instead of piling on the weight until you can do only one repetition, stop at the point where 5 or 6 reps is tough. This is a better approach for beginners and for people who don't have a mate to spot them while lifting heavy weights.

You can also do a descending pyramid, starting with the heaviest weight you think you can lift once, and working down until you're lifting a weight that allows you to perform 12 to 15 reps. However, don't do your heaviest set without first doing at least one warm-up set.

A third option is to combine a regular pyramid with a descending pyramid. In other words, you could start with 10 reps and a light weight, work your way up to a heavy weight and 1 to 3 reps, and then work your way back down to a light weight and 10 reps again. This technique brings new meaning to the word *fatigue*. Expect to lift a lot less weight on the way down than you do on the way up. For example, if you can bench press 40 kilograms ten times on the way up, you may be able to bench press 40 kilograms only six times on the way down. For the 10-rep set, you may be lifting only 25 kilograms.

## Breakdowns

*Breakdown training* is just another way of tiring out the muscle. You do multiple sets of an exercise without resting between sets; meanwhile, you decrease the weight for each set. Suppose that you're doing the Lateral Raise. First line up four to six sets of dumbbells near you, from heaviest to lightest. After a light warm-up set, do 10 repetitions with the heavy set, put the weights down, do 8 reps with the next lightest dumbbells, put those down, and so on (until you either run out of steam or run out of dumbbells). Breakdowns also are fun to do with machines because, instead of putting down and picking up weights, all you have to do is move the pin.

Another option is to do modified breakdowns using just two different weights. For example, first choose a weight that enables you to do 10 repetitions, and then immediately put it down and pick up a lighter weight, squeezing out as many repetitions as possible until failure, usually about 4 or 5.

## *Negatives*

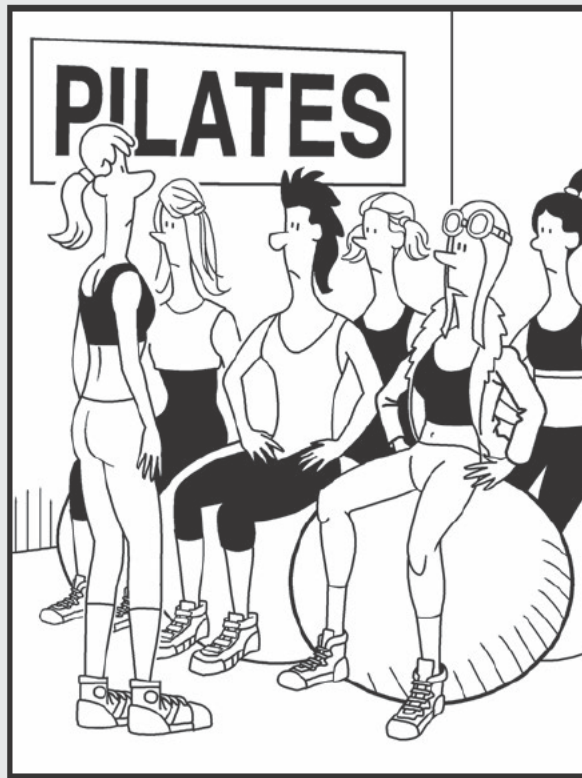
Negatives is an advanced technique that can cause extreme muscle soreness, so beginners should not try it. Someone helps you lift a weight, and then you're on your own for the lowering, or *negative*, phase of the lift. The negative phase is also referred to as the *eccentric* phase, pronounced EE-sentric, as opposed to ECK-sentric. The positive, or lifting, phase is called the *concentric* phase.

Your muscles generally can handle more weight when you lower a weight than when you lift it, so this technique gives you a chance to really max out on the negative phase. This is a good technique to try on the Bench Press and also many lower body machines such as the Leg Extension and Leg Curl because it's easy for your mate to help you lift up a handle or a machine's lever. Negative sets done with machines are safer than free weight negative sets because you're not in danger of dropping a dumbbell on your dental work if your arms or shoulders suddenly give out.

# Part V

# Beyond the Barbell

*Glenn Lumsden*



*'This ball stuff is great, but when  
do I get to fly the plane?'*

## *In this part . . .*

**O**ur mission in this book is to get you started on a weight training program and to get you feeling comfortable with hunks of steel in your hands. However, we would feel remiss if we did not give at least a nod to several related topics: yoga, Pilates, cardiovascular exercise, stretching, balance and nutrition. In this part, we compare the benefits of yoga and Pilates to those of weight training. We remind you why it's important to combine weight lifting with activities such as walking and stairclimbing. And we cover the often forgotten subject of stretching, which is sort of the Tasmania of fitness topics. We also show you how to do a workout with an exercise ball, and improve your balance and coordination; important attributes even if you have no intention of joining the circus. We also give you the latest on some of the dietary supplements that are promoted like crazy at health clubs, along with some practical nutrition advice.



## Chapter 18

# Yoga and Pilates

### *In This Chapter*

- ▶ Understanding the differences between yoga and Pilates
- ▶ Finding out what yoga and Pilates can do for you
- ▶ Fitting yoga or Pilates into your fitness program
- ▶ Choosing a type of yoga to suit you
- ▶ Getting strong with Pilates

**I**f you read fitness magazines or belong to a gym, you've probably been hearing a lot lately about yoga and Pilates, activities touted to increase strength and flexibility and make you look and feel younger than Justin Bieber. You may be wondering: What are the benefits of these activities compared to weight training? Do I need to incorporate all three modes of exercise into my fitness program? How many days a week should I do each one? Will I go broke doing all of these activities? Will my body collapse from exhaustion? This chapter answers all of these questions and more.

## *What's the Difference Between Yoga and Pilates?*

We explore each mode of exercise in detail later in the chapter, but here's the answer in a nutshell.

Yoga, developed in India more than 5,000 years ago, consists of a series of poses, known as *asanas*, that you hold anywhere from a few seconds to several minutes. The moves, which require a blend of strength, flexibility and body awareness, are intended to promote the union of the mind, body and spirit. Most yoga styles include the same basic poses but differ in terms of how quickly you move, how long you hold each pose, how much breathing is emphasised and how much of a spiritual aspect is involved.

Some styles offer more modifications for beginners. Other styles are for people who can already fold themselves in half like a piece of foam rubber.

Pilates (pih-LAH-teez) is an exercise form named after Joseph Pilates, the former carpenter and gymnast who invented the technique for injured dancers at the turn of the 20th century. Many Pilates moves were inspired by yoga, although some were patterned after the movements of zoo animals, such as swans, seals and big cats. Pilates mat classes involve a series of specialised calisthenics exercises; rather than hold the positions, as in yoga, you're constantly moving. Private lessons are taught on medieval-looking machines with names such as the Cadillac and the Reformer. The Cadillac looks like a four-poster bed that's been rigged for torture, with its array of springs, straps, poles and bars. The Reformer looks like a weight bench souped up with assorted springs, straps and pads.

## *What Will Yoga and Pilates Give You That Weight Training Won't?*



Some yoga and Pilates practitioners claim that yoga and Pilates are superior to weight training because these disciplines can make you stronger without creating bulky muscles. It's true that yoga and Pilates can build strength without bulk — but, in reality, so can strength training with free weights or machines. The only way to end up with barrel-sized biceps is to train for it by lifting super-heavy weights and performing a minimal number of repetitions. So, choosing yoga or Pilates simply because you're trying to develop strength without bulk is buying into a fitness myth. However, there are plenty of other excellent reasons to take up these alternative modes of exercise. Here's a rundown.

### *Yoga and Pilates engage your whole body*

Weight training tends to emphasise individual body parts; you think about working your chest muscles or your shoulders or your hamstrings. Magazines promote 'The Ultimate Ab Workout' or 'Eight Moves for a Better Butt'. With most weight training exercises — especially with those performed on machines — you work one or two muscle groups without involving any others. Yoga and Pilates take a different approach. Both disciplines require you to engage virtually your whole body at once.

For instance, when performing a thigh exercise, you don't simply straighten and bend your leg, as you would in a traditional weight training exercise for your quads. Instead, you must engage your butt muscles in order to sit evenly in the seat, use your abs and lower back to avoid wiggling back and forth, work your upper body muscles to keep your back and neck in alignment and so on. Every movement is a thoughtful process, and you learn to take into account how every part of your body must respond and contribute to even the smallest movements.

The benefit of working so many muscle groups simultaneously is that this is the way you're likely to use them in everyday life. It may not seem that lying on your stomach and arching your chest off the floor is a position you often assume during your life, but if you think about it, the way you use your lower back in an exercise like this is pretty similar to the way your lower back muscles spring into action whenever you have to screw in a light bulb that's just within your reach or when you put something back up on a high shelf.

Not only do yoga and Pilates offer the benefit of engaging your whole body, but they also place a particular emphasis on your 'core' muscles — your abdominals, lower back and dozens of small spinal muscles that don't get much action in a weight machine workout.

This is a type of strength worth developing: It can help you stand up straighter and move more loosely and comfortably. When all of those small, internal muscles are optimally strong, they also lend support, stability and added strength to your weight room activities. You may find that you can pile on extra weight plates at the gym if you include regular yoga or Pilates sessions in your repertoire.

## *Yoga and Pilates increase your flexibility*

Weight training has an undeserved reputation for making your muscles tight; in reality, lifting weights can actually increase your flexibility somewhat if you go through the entire range of motion. However, strength training — even under the best of circumstances — isn't going to make a big difference in how freely your muscles and joints move. (That's why we strongly recommend stretching on a regular basis; see Chapter 21.)

However, yoga and Pilates can do remarkable things for your flexibility. You may never be able to fold yourself into a human half sandwich, but if you put time and effort into these pursuits, you will be surprised by how pliable your body becomes.

## *Yoga and Pilates can improve your balance, coordination and concentration*

Some weight training moves, such as the Squat and the Lunge (and other advanced moves not included in this book), do require a fair amount of balance and coordination. But for the most part, strength training simply gives you strength. Lying facedown on a hamstring machine and kicking your legs up doesn't exactly train you to float down a flight of stairs without having to look at your feet.

But yoga and Pilates moves tend to be more complicated. Consider a Pilates move called the Teaser. You lie on your back with your arms overhead and your legs straight and off the ground at a 45-degree angle. Then you lift your upper body and torso off the floor and try to reach your fingers to your toes.

This requires more balance, strength and flexibility than you could possibly imagine. When you first try this move, you typically tip over sideways. It can take several years just to start to perform this move with grace and fluidity. These disciplines require a lot of concentration and body awareness. You can't simply go through the motions and expect to get much out of the technique.

## *Can Yoga and Pilates Replace Weight Training?*

Rather than choosing one over the other, you'll probably get the best results if you combine weight training with one of the two. One of the best reasons to lift weights is to maintain and build bone density so that you'll have enough bone in reserve to prevent osteoporosis later in life. Studies suggest yoga and Pilates may offer the same benefit, but, for the most part, you don't work against nearly as much resistance during a yoga or Pilates routine as you do during a challenging weight workout, so you might not get the same level of increase in bone strength.

Also, it's not clear whether yoga and Pilates can build as much muscle as a good, solid weight training program. It's important to build muscle for the same reason it's crucial to build bone: to bank it away for the future, when, inevitably, you will have less of it.

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Then again, you won't get nearly the flexibility benefits from pumping iron that you will from Pilates or yoga. For these reasons, we think of yoga and Pilates as complementary to — not replacements for — weight training.

## *How Can I Fit Yoga and Pilates into My Fitness Program?*

First, realise that you can't do everything in life! You can't be a full-time investment banker *and* a professional TV critic *and* a world-class pole vaulter. There just isn't enough time in the day. Besides, your brain would explode. By the same token, you can't devote yourself to weight training, yoga *and* Pilates — especially when you're also (we hope) doing cardiovascular exercise. You'll feel like your body has been dragged through the spin cycle.

That said, we do think it's a good idea to incorporate either yoga or Pilates into your workout program. Which one? Try out both and see which one you like best.

This may take a while to figure out because there are so many different styles of yoga and different Pilates contraptions and because various instructors may teach the same class differently. From our experience, Pilates mat classes tend to be similar nationwide, whereas yoga classes seem to vary more. During this tryout period, drop to two weight training sessions a week and take a third day to try an alternative exercise. Or, take a two-week break from weight training (don't worry; your muscles won't disintegrate) and try a number of different yoga and Pilates classes and/or instructors.

Then decide which weight training alternative you'd like to try for a while, whether it's private Pilates lessons or a power yoga class at your gym or an Ananda yoga (see later in the chapter) class at a studio. This isn't a lifetime commitment, of course. But we think it's a good idea to choose one route and stick with it for at least a couple months. This should give you enough time to see whether you enjoy this type of workout and are getting benefits.

As for your weekly schedule: We recommend lifting weights twice a week and doing either yoga or Pilates twice a week. Doing any of these activities just once a week typically isn't enough for a beginner to see results and get the hang of proper technique. For weight training, yoga and Pilates, repetition is extremely important.



These are not hard-and-fast rules. Some yoga and Pilates classes are more demanding than others. You'll have to experiment and see what type of weekly schedule your body thrives on. Just make sure you don't overdo it. The first time Liz did Pilates, she thought it would be a breeze. After all, she had been lifting weights for a long time and considered herself strong as a team of oxen. But she quickly learned that you can't just muscle your way through Pilates. The discipline requires more coordination, flexibility and balance than Liz had developed in the weight room. She found herself struggling to complete the most basic movements, such as rolling up into a sitting position without relying on momentum. The first few times she overshot the movement and went rolling across the room like an errant bowling ball. There were 65 year olds in the class who had been studying the technique for years and who performed tough moves with ease and grace while Liz struggled to keep up. It was a humbling and enlightening experience for Liz. And the next day, she felt muscles in her abs and hips that she didn't even know existed.

## More Details About Yoga

Yoga classes have become amazingly popular as people search for ways to complement the pounding and pumping they do in the gym. But this doesn't mean that yoga is easy. Yoga can be extremely demanding, both in terms of flexibility and strength. Even if you can bench press a heavy load in the gym, you may find yourself lacking the strength to hold a yoga pose for a minute (see Figure 18-1). A good rule to follow: Don't try to keep up with anyone else.



**Figure 18-1:**  
The Active  
Cat is a  
classic yoga  
posture.

## Different styles of yoga

You can choose from many different types or styles of yoga. Ananda yoga, for instance (also known as Hatha yoga), requires less strength and flexibility than most other styles. The moves are fairly straightforward; for instance, you may practice something as simple as sitting up straight or standing with good posture. Ananda, which doesn't involve much chanting, may be a good place for beginners to start.

On the other hand, Ashtanga, sometimes called 'Vinyasa' or 'Power' yoga, is one of the most physically demanding forms of yoga in terms of flexibility, strength and stamina. You move from one posture to another without a break. For beginners, this may be more discouraging than invigorating — although if you love fast-moving workouts like aerobics or jogging, then this might actually be your preferred style.



Though some yoga styles retain spiritual elements such as chanting or burning incense, others have been Westernised and are taught using the same techniques and language that you'd find in a body sculpting class. Liz recently checked out a Disco Yoga class in a gym that had her and her classmates bopping through yoga poses to the beat of Donna Summer, Cher and the *Saturday Night Fever* soundtrack. This same studio also offered Yoga for Runners and Urban Yoga, which are aimed at reducing the stress of city life and improving the posture of those who sit slumped over their computers all day. We suspect that several ancient yoga masters were turning over in their graves — but those classes sure can be a lot of fun!

Most gyms and workout studios don't advertise the style of yoga practised, and the gym staff probably won't know much about what's being taught. Your best bet is to ask the instructor what her style and teaching philosophy is. Look for a class with the word *beginner* or *novice* in the title. If you accidentally wander into a more advanced class, you may wind up feeling like one of those tangled necklaces that mysteriously appear in your jewellery box.

Although your gym is a good place to start, you'll find a wider variety of styles at yoga-only studios. Typically, studios charge about \$20 per class depending on the teacher, the style and the region of the country. You'll also find classes aimed at different experience levels.



## *Finding a qualified yoga instructor*

There's no national yoga certification, so we can't list certain credentials to look for in a teacher. In Australia, however, there is an industry body called Yoga Australia (formerly known as the Yoga Teachers' Association of Australia), which most reputable yoga studios require their instructors to be registered with. To register with Yoga Australia, teachers are required to undertake more than 350 hours of training and teaching, so this is a good way to be sure your teachers know what they're doing. To find a local yoga instructor registered with Yoga Australia, jump onto their website: [yogaaustralia.org.au](http://yogaaustralia.org.au).

There is no peak industry body in New Zealand, but rather several different, smaller organisations dedicated to different styles of yoga, such as the Kundalini Yoga Teacher's Association (dedicated to Kundalini yoga) and the Iyengar Yoga Association of New Zealand (dedicated to, yep, you got it — Iyengar yoga). So when looking for a yoga teacher, you'll need to rely on your own judgement, recommendations from friends and reviews online. Look at how they behave in class, too — instructors who wander around the room correcting class members' techniques offering modifications for less flexible people are worth their weight in gold.

Another good introduction to yoga: DVDs. The good ones take you step by step through a series of traditional poses. Only your DVD player will have to witness your lack of strength and flexibility. Many of the DVDs offer different levels of the same moves so that you can progress over a long period of time without having to buy a new tape. Naturally, we like the *Basic Yoga Workout For Dummies* DVD, but other good options include DVDs starring yoga master Rodney Yee or yoga expert Rob Stryker; both offer a Westernised, accessible approach to the discipline. Look for their DVDs at [www.stretchnow.com.au](http://www.stretchnow.com.au), [www.amazon.com](http://www.amazon.com) and [www.trademe.co.nz](http://www.trademe.co.nz).

## *The Lowdown on Pilates*



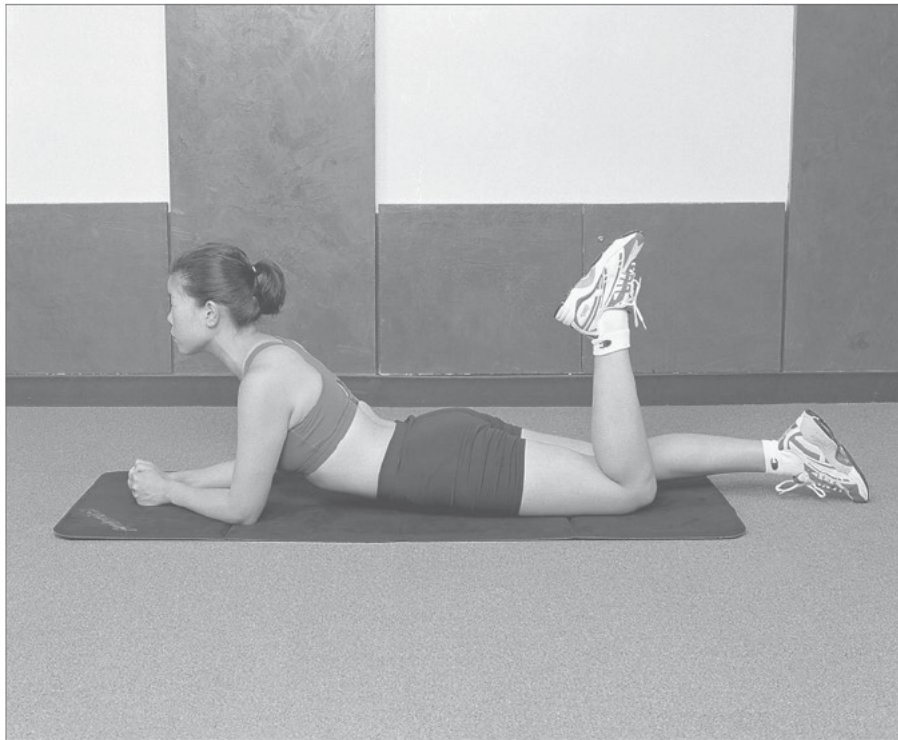
Like yoga, Pilates emphasises correct form rather than brute strength. Many of the moves look easy but are deceptively tough (see Figure 18-2). There is a series of leg exercises that requires no equipment at all, yet Liz could barely get through the first time she took a Pilates class. One of these moves involves lifting your leg up and then moving it in tiny circles. The exercise



didn't look that tough until Liz tried to do it with her knee held just so, her foot in the correct position, and the circles perfectly symmetrical. Keep in mind Liz runs, does leg strength training and rock climbs on a regular basis.

Most Pilates moves emphasise the principle of opposition: while you are strengthening one muscle, you are stretching the one on the opposite side of the joint. For instance, the mat class move known as the Hundred, involves pumping your arms up and down as you lie on your back with your legs lifted off the floor straight out in front of you. The purpose of the Hundred is to strengthen your abs and front of thighs as you stretch out your lower back, back of thighs and arms.

We also love that, like weight training and yoga, Pilates is progressive. Although you can't add an extra 2 kilogram weight plate every time an exercise becomes easy, whenever you master a move, another slightly different, slightly harder version of it is there to take its place. It can take months to learn the basics and years to become a real expert.



**Figure 18-2:**  
The Single  
Leg Kick is  
part of the  
Pilates mat  
class.

Pilates classes and private instructors aren't tough to find in most cities. There are dozens of Pilates studios throughout Australia and New Zealand. Instructors of the official Pilates Method must complete a rigorous training program that includes more than 600 apprenticeship hours. Other Pilates factions have created their own certifications, which may or may not be just as rigorous. Some only require instructors to attend a two-hour seminar, which we feel is inadequate. To find a good Pilates instructor, get recommendations from people you trust, and ask the instructor a lot of questions about his or her training, certification and experience. Although not compulsory, a Certificate IV in Pilates Instruction can also be a good indicator of an instructor's knowledge in Australia.

Just be aware: Pilates is expensive. Private lessons run from \$80 to \$200 a session. Some gyms offer Pilates classes to members at no additional charge and offer private instruction at a discount.

If you can't afford Pilates instruction, you can try several excellent DVDs. Get your hands on *Pilates Workout For Dummies* or *Pilates Weight Loss Workout For Dummies*. We also like a series of DVDs called *The Method*, led by instructor Jennifer Kries (try [www.amazon.com](http://www.amazon.com)), as well as the Stott Conditioning exercise DVDs — you can choose from almost 60 different DVDs in the series, and some of them come with resistance bands (see [www.stottpilates.com/videos](http://www.stottpilates.com/videos)). If you're keen to hear a local accent, try the Pilates TV series; these accessible, practical DVDs are led by Australian Zosha Piotrowski (available at [www.pilatestv.com.au](http://www.pilatestv.com.au)).

Surprisingly, we don't like the official workout tape created by the owner of the Pilates trademark. It is short on instruction and long on warnings about not messing with the Pilates name. If you don't have access to the Web, check in your local Pilates studio. Many sell DVDs and books direct to their clients.

## Chapter 19

# Having a Ball (Almost Literally)

### *In This Chapter*

- ▶ Having a ball weight training
- ▶ Knowing how to use exercise balls safely
- ▶ Working ball exercises into your regular routine
- ▶ Practising ball exercises

Using the exercise ball to work out is one of the most fun ways to tone your body. Because of their roundness, balls are unstable. Every move has the added challenge of balance making your core stabilisers work. You can even substitute the ball for the bench in some of your weight training exercises and add dumbbells. In this chapter, we let you in on some of the most useful tips for using balls safely, plus introduce you to some basic ball exercises.

## *Picking Out the Right Ball*

To get an effective ball workout, you must use a quality ball that is the correct size for your body — and trust us, choosing the wrong size is the most common mistake people make. Exercisers simply think that bigger is better and cheaper is more economical. To get a workout that produces results, the size and quality of your ball does matter. More information is available in *Exercise Balls For Dummies* and *Fat-to-Firm Fitness Ball Workout For Dummies* (Wiley Publishing), but this chapter covers the basics for you.



When you sit on your ball, your knees should be at a right angle, like the corner of a square. For people who are shorter than 142 centimetres, ball size should be 45 centimetres. For people who are 142 to 160 centimetres tall, ball size should be 55 centimetres. For people who are 160 to 182 centimetres tall, ball size should be 65 centimetres. For people who are taller than 182 centimetres, ball size should be 75 centimetres.

Also, the softer the ball, the easier it is to balance — so if you're a beginner, you may want to buy a slightly larger ball. That way, you can underinflate it, making it softer, more comfortable and easier to balance on. For a more challenging workout later down the line, you simply inflate your ball to its full extent, so it rolls easily and is more difficult to balance on.



Make sure that you use a ball designed for exercising — a giant inflatable pool toy or that oversized basketball you won at the Easter show just won't cut it. You can purchase a ball from manufacturers such as SPRI®, Thera-Band®, FitBALL® and Resist-a-Ball®. These manufacturers also sell DVDs with workout routines led by certified fitness professionals.



Look for the following features when you're shopping for your ball:

- ✓ **Weight tested:** Manufacturers make balls that can hold up to 500 kilograms. Obviously, we don't all need balls that hold this much weight — but make sure you check a ball's specifications before you purchase it. It should have been weight tested to hold at least 250 kilograms or more.
- ✓ **Burst resistant:** The last thing you want is a ball that bursts easily — particularly while you're sitting on it! Ball injuries don't occur very often, but when they do, it tends to be as a result of falls to the ground when a ball bursts. So trust us when we say get the strongest ball possible! Besides, the more puncture resistant your ball, the longer it is likely to last.
- ✓ **Slow deflation:** A ball that deflates slowly if punctured reduces the risk of injury. Imagine if it popped like a balloon while you were sitting on it — not fun! A slow-deflation ball is worth paying 5 to 10 dollars more for.

## Using Exercise Balls Safely

Balls require little maintenance aside from occasional cleaning and inflation. Consider the following points when maintaining and using your exercise ball:

- ✓ **Storage:** Your biggest challenge is deciding how to store your ball. If you don't have space, deflate and inflate your exercise ball in between uses — an electric pump can help make this task a whole lot easier.

Some balls come with plastic circular stands, which prevent your ball from rolling around. Others come with *udders*, which do the same job, but look just like the udder on a cow (minus the milk production, of course). Stick your ball on the udder, and it will stop the ball from

rolling around your room. Make sure that you don't store any exercise balls near a heat source, as it can cause the ball to expand or soften and weaken the ball's surface.

- ✓ **Cleaning:** Clean your ball with a soft cloth or sponge and clean, warm water (or mild soapy water, if needed). Avoid using chemical cleaners — these may break down and damage the ball's surface. Always use your ball on a clean dry floor. This precaution goes a long way toward keeping your ball clean and avoiding punctures.
- ✓ **Practice space:** Make sure that your practice space is large enough to work with a ball. The exercise area should be longer and wider than your height, with no sharp-edged furniture within flailing distance (for obvious reasons). Remember that your balance is challenged when you work with the ball, so you may not control your movements perfectly. Keep your workout space free and clear.

## *How Often Should I Use My Ball?*

Use your ball exercises as part of your weekly strength training routine or rotate ball exercises in and out of your regular workouts. The variety challenges your muscles in different ways and also keeps your workouts fresh and fun. As with all other resistance exercises, perform between 8 and 15 repetitions per set and at least one set per muscle group, unless indicated otherwise in the specific exercise. (We tell you which muscle group each ball exercise strengthens.) When you can perform 15 repetitions easily, make the exercise tougher by decreasing the base of support (by picking up one foot or by bringing legs closer together) or by adding some free weights.

## *Exercises in This Chapter*

Here's a list of the ball exercises that we present in this chapter:

- ✓ Ball Crunch
- ✓ Ball March
- ✓ Ball Oblique Crunch
- ✓ Ball Extension
- ✓ Ball Plank

- ✓ Ball Push-up
- ✓ Ball Leg Lift
- ✓ Ball Bridge
- ✓ Ball Side-Lying Outer Thigh Lift

## Ball Crunch

The ball crunch strengthens the abs by requiring you to keep your balance while you perform the Basic Abdominal Crunch (refer to Chapter 12). If you're stronger, you can take advantage of the greater range of motion made possible by being on a rounded surface instead of flat on the floor.

### *Getting set*

Sit on top of the centre of your ball with your feet flat on the floor and placed as wide as you need to keep your balance. The closer together that you place your legs, the more difficult the exercise. Place your hands behind your head so your thumbs are behind your ears. Don't lace your fingers together.



Hold your elbows out to the sides and round them slightly in. Tilt your chin slightly and lengthen the back of your neck. Pull your abdominals inward as you walk your feet slightly forward and lean back on to the ball so your entire back, from your tailbone to your shoulders, is resting on the ball. Your head and arms will be suspended above the ball. See photo A of Figure 19-1.

### *The exercise*

Curl up and forward so your shoulder blades lift up off the ball. Move slowly and carefully to help maintain your balance and reduce any movement other than the crunch. Hold for a moment at the top of the movement, and then lower slowly back down. See photo B of Figure 19-1.



Make this exercise easier by placing your hands on your thighs, rather than behind your head, and crunching only up to the tip of your knees, rather than sitting all the way up. You can slowly make this exercise more difficult by placing your hands across your chest, and once that becomes easier, placing them behind your head.



A)



B)

**Figure 19-1:**  
Move  
slowly to  
maintain  
balance.

## Ball March

The ball march works your butt, the back of your thighs, and your core stabilisers. It's very challenging, so be patient with yourself as you increase your core strength.



Use caution if you have lower back problems.

### Getting set

Sit on top of the centre of your ball with your feet flat on the floor and hip-width apart. Place your hands behind your head so your thumbs are behind your ears. Don't lace your fingers together.





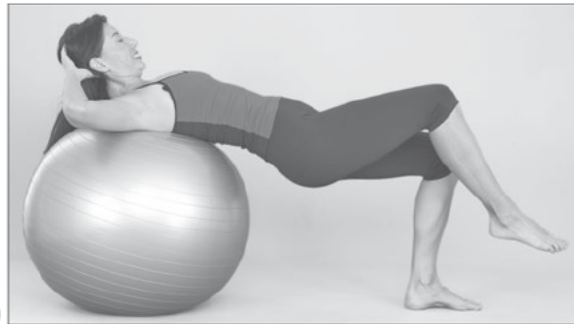
Hold your elbows out to the sides and round them slightly in. Tilt your chin slightly and lengthen the back of your neck. Pull your abdominals inwards as you walk your feet slightly forward and lean back on to the ball so your back is resting on the ball. The farther out that you walk your feet away from the ball, the harder the exercise. Your head and arms will be suspended above the ball. Look down your torso. See photo A of Figure 19-2.

### *The exercise*

Keeping your abs and buttocks muscles tight and your body parallel to the ground, alternately lift your right and left foot up and down as if you're marching in place. Work up to at least ten repetitions with each leg, concentrating on keeping your torso parallel to the ground. See photo B of Figure 19-2.



A)



B)

**Figure 19-2:**  
Concentrate  
on keeping  
your hips  
up.

## *Ball Oblique Crunch*

The ball oblique crunch targets all of your abdominals, especially the obliques that wrap around your waist.



### *Getting set*

Sit on top of the centre of your ball with your feet flat on the floor and placed as wide as you need to keep your balance. The closer together that you place your legs, the more difficult the exercise. Place your hands behind your head so your thumbs are behind your ears. Don't lace your fingers together.



Hold your elbows out to the sides and round them slightly in. Tilt your chin slightly and lengthen the back of your neck. Pull your abdominals inwards as you walk your feet slightly forward and lean back on to the ball so your entire back, from your tailbone to your shoulders, is resting on the ball. Your head and arms will be suspended above the ball. Refer to photo A of Figures 19-1 and 19-2.

### *The exercise*

Curl up and rotate your right shoulder towards your left hip so your right shoulder blade lifts up off the ball. Keep your hips stable on the ball. Move slowly and carefully to help maintain your balance and reduce any movement other than the crunch. Hold for a moment at the top of the movement, and then lower slowly back down. Repeat on the left side.

## **Ball Extension**

The ball extension strengthens the muscles that support your back along your spine, your lower back and your buttocks. This is a great conditioning exercise if you have a healthy back as it strengthens the muscle that support your spinal column and the muscles of the lower back.



If you experience any pain or have lower back problems, don't do this exercise.

### *Getting set*

Kneel behind your ball and lay your belly on it. Roll your body as you walk your feet back and straighten your legs (the ball should support your lower torso). Place your arms either at your sides, behind your head, or extended outwards in a Y-position, depending on your strength and ability to stabilise your shoulders and avoid hunching. Use the arm position that enables you to keep your shoulders down and stable as you strengthen your back muscles. Lengthen the back of your neck and align your ears over your shoulders. See photo A of Figure 19-3.



### *The exercise*

Pull your abdominals inwards and tighten your buttocks as you lift your chest upwards. Keep your shoulders down and neck straight. Avoid dropping your head. Hold for a second before lowering and repeating. See photo B of Figure 19-3.



A)



B)

**Figure 19-3:**  
Keep your  
shoulders  
down  
and your  
abs and  
buttocks  
tight.

## Ball Plank



The ball plank is a fantastic core exercise. It challenges your shoulder stabilisers, your abs and back, and your buttocks muscles.

Be sure to pull your pelvic floor up and your abs in as you exhale.

### Getting set

Kneel behind your ball and lay your belly on it. Roll your body over the ball as you walk your feet back and straighten your legs (the ball should support your lower torso). Lengthen the back of your neck and keep your ears level with your shoulders. Refer to photo A of Figure 19-3.

### The exercise

Pull your abdominals inward and tighten your buttocks as you walk your hands forward. Stop at a point that is challenging with your hands directly beneath your shoulders. You feel that your muscles are working, but you are still able to maintain correct form. The further your shoulders are away from the ball, the harder the exercise. Keep your shoulders down and neck straight. Avoid dropping your head. Work up to a 30-second hold. Alternatively, hold for a few seconds, walk your hands back in and repeat three to five times.

## Ball Push-up

The ball push-up adds variety to your push-up routine. This exercise strengthens your chest, shoulders, triceps and abdominals and tones your buttocks.



If you have lower back, neck, elbow, or wrist problems, you may want to skip this push-up variation.

### Getting set

For this exercise, set up as if you're going to do a ball plank (described above). Kneel behind your ball and lay your belly on it. Roll your body over the ball as you walk your feet back and straighten your legs (the ball should support your lower torso). Lengthen the back of your neck and align your ears over your shoulders.



Pull your abdominals inwards and tighten your buttocks as you walk your hands forward. Stop at a point where you can still maintain proper form but you feel that your muscles are working hard to keep your body stable, with your hands directly beneath your shoulders. The farther your shoulders are away from the ball, the harder the exercise. See photo A of Figure 19-4.

***The exercise***

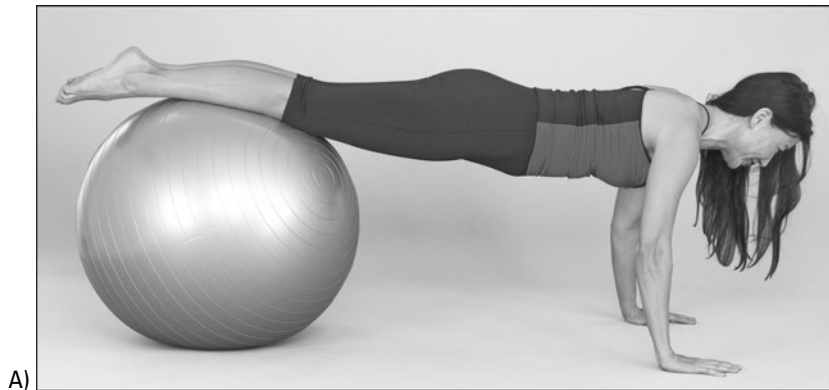
Slowly bend your elbows and lower yourself down. Hold for a few seconds. Straighten your elbows as you push yourself up to repeat. See photo B of Figure 19-4.

***Ball Leg Lift***

The ball leg lift is a great buttocks strengthener, because you need to use your gluteal muscles to lift your legs. Keep your abdominals pulled inwards to support your lower back.

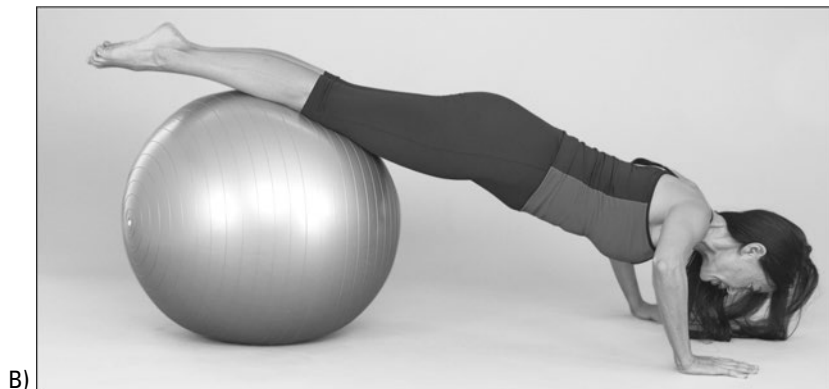
***Getting set***

Kneel behind your ball and lay your belly on it. Roll your body as you walk your feet back and straighten your legs (the ball should support your lower torso). Lengthen the back of your neck and align your ears over your shoulders. Place your hands directly under your shoulders. Keep your shoulders down and tighten your buttocks. See photo A of Figure 19-5.



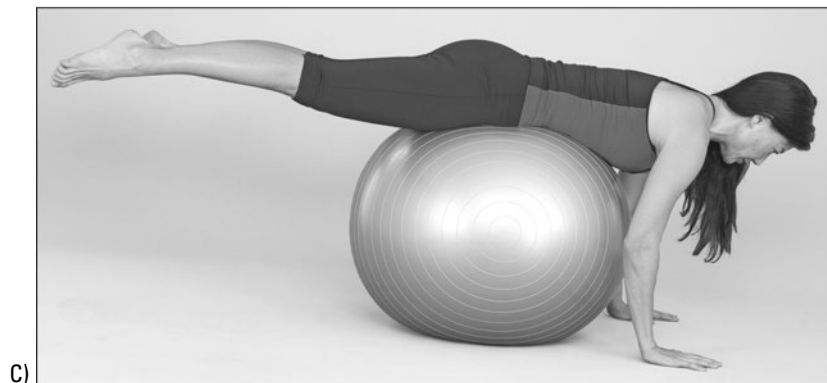
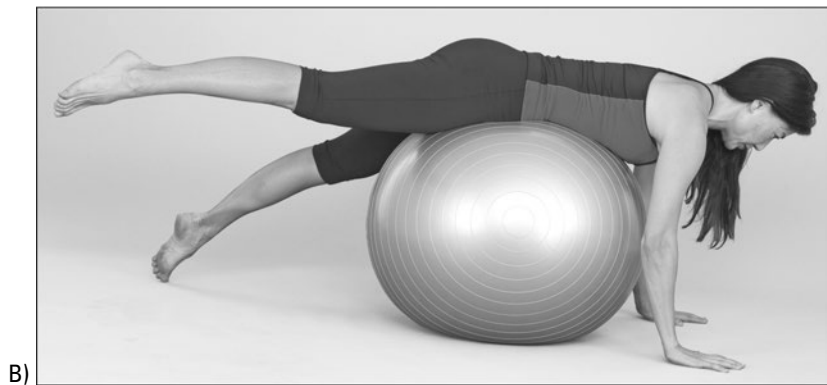
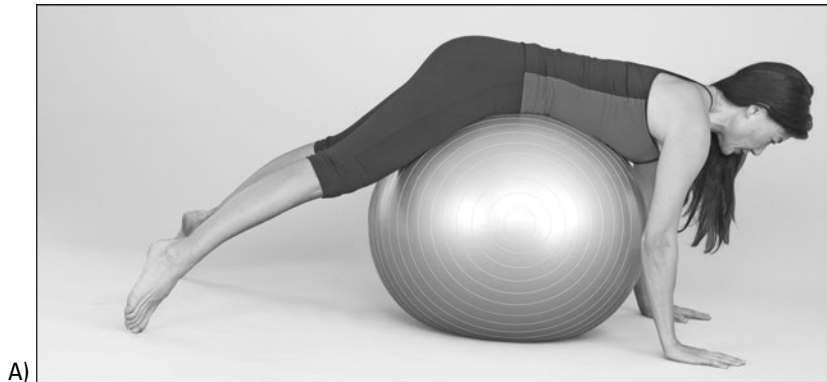
**Figure 19-4:**

Pull your abdominals inwards and keep your buttocks tight to support your torso.



***The exercise***

Alternately, raise and lower your right and left leg up to hip height and down to the ground. See photo B of Figure 19-5. Hold for a few seconds before you lower slowly back down. As you get stronger, progress to lifting both legs at the same time. See photo C of Figure 19-5.



**Figure 19-5:**  
Keep your  
shoulders  
down and  
tighten your  
buttocks.

C)

## Ball Bridge

The ball bridge strengthens the muscles of the buttocks and the back of the thighs while it works your core stabilisers.

### *Getting set*

Lie face up on the floor and place your feet on top of the ball. Rest your arms at your sides, palms facing up. This position helps to open up your chest and shoulders and prevents you from using your arms to push yourself up. Relax your shoulders and lengthen the back of your neck. See photo A in Figure 19-6.

### *The exercise*

Tighten your buttocks and your hamstrings and push yourself up through your heels. Squeeze your buttocks and back of thighs as you hold for a few seconds and then lower slowly back down. Keep pulling your abdominals inwards to support your lower back. See photo B of Figure 19-6.



**Figure 19-6:**  
Squeeze  
the muscles  
of your  
buttocks  
and back of  
thighs at the  
top of the  
movement.

## Ball Side-Lying Outer Thigh Lift

The ball side-lying outer thigh lift strengthens your outer thighs and challenges your core stabilisers, because you need to hold your body still as you lift your leg.



Keep your abdominals pulled inwards to support your lower back.

### Getting set

Kneel next to your ball and lay your left hip and waist on it. Rest the ball directly under your arm and bend your top elbow as if you're hugging the ball. Place your top arm either on the ball or behind your head. Keep your inside knee bent with your foot flat for support. Straighten your top leg. See photo A of Figure 19-7.



Pull your abdominals inwards and tighten your buttocks to support your lower back. Keep your torso perpendicular to the ground.

### The exercise

Raise your top leg until your foot is at hip height. Hold for a few seconds and then lower slowly back down. After you've done a set, switch and do an equal number of reps for your other leg. See photo B of Figure 19-7.



**Figure 19-7:**  
Lift your foot  
up to hip  
height.

B)

## Ball Side-Lying Double Leg Lift

The ball side-lying double leg lift improves your inner and outer thighs and your buttocks, and challenges your core stabilisers, because you need to stabilise your upper body and hips as you lift the ball.



If you have lower back problems, don't do this exercise if you experience any pain or discomfort.

### Getting set

Lie on your side — torso perpendicular to the ground — and place the ball in between your ankles. Relax your upper body with one arm under your head. Place your top arm in front of your torso with your palm down. See photo A of Figure 19-8.



Pull your abdominals inwards and tighten your buttocks to support your lower back. Make sure that your lower ribs don't flare out.

### The exercise

Tighten your inner thigh muscles and squeeze the ball. Lift the ball a few inches off the ground and hold for a few seconds before lowering slowly to the ground. After you've completed a set on one side, switch and do an equal number of reps for your other leg. See photo B of Figure 19-8.



A)

**Figure 19-8:**  
Keep your abdominals pulled inwards to avoid arching your back.



B)



## Chapter 20

# Whipping Your Heart and Lungs into Shape

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### *In This Chapter*

- ▶ Finding out what *aerobic* means
  - ▶ Fitting aerobic exercise into your workout
  - ▶ Managing your workout intensity
  - ▶ Measuring your heart beat when exercising
  - ▶ Finding the cardio machine for you
  - ▶ Taking the drudgery out of aerobic workouts
- 

**M**aybe you've taken up weight training so that your bones don't disintegrate later in life. Or maybe your goal is to become strong enough to unscrew the cap of a stubborn Vegemite jar. But for all the effort you are putting into your chest presses, arm curls and leg extensions, we suspect you have another agenda, too: You'd like to *see* your muscles. When you look in the mirror, you'd like some good, solid evidence that you actually do have pecs, biceps and quads.

This isn't going to happen if you have an extra layer of fat covering your muscles. Weight training makes your muscles firmer and larger, but you can't see these results unless you reduce that blanket of fat. The best strategy for fat loss is to combine aerobic exercise with weight training workouts and a sensible, kilojoule controlled diet. *Aerobic workouts* — walking, jogging, bicycling and the like — are the best way to burn lots of kilojoules in a relatively short period of time.

Of course, aerobic exercise is important for other reasons, too. This type of exercise strengthens your *cardiovascular system*: your heart, lungs and blood vessels. When your heart is stronger, it beats fewer times per minute because it's capable of pumping out more blood per beat. Over time, a slower resting pulse rate saves wear and tear on your heart. Aerobic

workouts also enable your lungs to suck in more air per breath — and to more efficiently extract oxygen, the fuel that provides you with energy. The end result: You have more stamina. You're able to get through your workouts and your day with more energy and less effort. What's more, aerobic exercise — also called cardiovascular exercise or *cardio* — can lower your blood pressure and your level of 'bad' cholesterol while increasing your 'good' cholesterol count. These are all important reasons why, on your way to the weight room, you shouldn't walk past those funny machines with blinking red lights, belts that go round and round and pedals that go up and down.

In this chapter, we answer all your questions about aerobic exercise. We explain how often you need to do these workouts, how long your sessions should last, and how hard you need to push yourself. We also give you lessons in cardio machine etiquette.

## *What Type of Activities Count as Aerobic Exercise?*

Aerobic exercise is any rhythmic, repetitive activity that involves your large muscles (like your butt, legs and back) and lasts longer than a minute and a half. For example, the cyclist in Figure 20-1 is engaging in aerobic exercise. Other examples are swimming, jogging, dancing and walking.

Weight lifting doesn't fit the bill; you break the rhythm when you stop to rest between sets. The only type of weight training that is moderately aerobic is circuit training: You move from one weight lifting exercise to another with little or no rest in between. (We describe this technique in Chapter 17.) In general, however, activities such as weight training or the 50-metre sprint are not considered aerobic; they're anaerobic.

If you're wondering where these terms come from, *aerobic* means *with air* and *anaerobic* means *without air*. Because weight lifting exercises and sprinting take only a few seconds to complete, your body has enough stored energy to get through these actions. But to sustain any activity that lasts longer than 90 seconds (the type of activity necessary to strengthen your heart and lungs), your body needs an outside source of fuel, which it gets in the form of oxygen from the air you breathe.



**Figure 20-1:**  
Cycling is  
an example  
of an  
aerobic  
activity.

## *How Many Days a Week Should I Do Aerobic Exercise?*

The answer depends on your goals. If your aim is to maintain good health — to reduce your risk for heart disease, diabetes, high blood pressure and other serious conditions — experts recommend 30 minutes of physical activity per day on most days. However, this doesn't mean you need to jog for 30 consecutive minutes; instead, you can piece together short bouts of exercise. You could walk for 10 minutes before work, walk the stairs at your office for 3 minutes a day, and take a 15-minute walk at lunch. Any type of activity counts, as long as you're slightly winded. If you can't fit in a half hour of activity every day, you may be able to make up for it by accumulating extra activity on the days that you do exercise.

However, don't fool yourself: To build significant stamina and achieve significant weight loss, a leisurely 5-minute walk here and there isn't going to cut it. You may need to do four to six longer workouts a week, putting in 45 minutes to an hour of aerobic exercise. (However, 60 minutes is not a starting point. Beginners should start with 10 to 20 minutes and gradually build up.)

## Should I Do Aerobic Exercise Before or After My Weight Workouts?

Again, the answer depends on your goals. If you're serious about building big muscles or getting as strong as you possibly can, lift weights first, while you feel fresh and full of energy. (However, before you pick up a single weight, you need to warm up with at least five minutes of aerobic exercise, as we explain in Chapter 2.) On the other hand, if burning kilojoules or building stamina is your priority, do your aerobic routine first, before your muscles get tired from pushing around weights.

If you give equal importance to weight training and aerobic exercise, you can do your workouts in either order. Some people like to break up their aerobic workouts; for example, they may do 15 minutes on the treadmill, a 30-minute weight lifting routine, and then 30 minutes on the stairclimber. How you arrange your workout is a matter of personal preference. Depending on your schedule, you may want to do your aerobic and weight training workouts on different days.

## Is It True That I'll Lose More Weight If I Exercise at a Slower Pace?



No. For years, fitness magazines trumpeted the advantages of exercising in your *fat-burning zone*. The theory was that, because your body uses fat as its primary fuel during long, slow aerobic workouts, you'd burn more body fat exercising at a slower pace than you would at a faster pace, which uses carbohydrates as the primary source of fuel.

It's true that when you exercise slowly, a greater percentage of the kilojoules you burn are fat kilojoules, as opposed to carbohydrate kilojoules. (No matter what your pace, you always burn both fat and carbohydrates.) But the percentage of kilojoules you burn from fat doesn't matter. What matters most is how many *total* kilojoules you burn. If you walk for a half hour you might burn 504 kilojoules; if you jog for a half hour you might burn 1260 kilojoules. If you choose a slower pace, you'll have to spend more time exercising; on the other hand, you may find exercise more enjoyable at a comfortable pace. You're more likely to stick with your exercise program if you don't consider it torture. In the next section, we give you more details on selecting your pace.

## Finding Your Target Heart Rate

To challenge your cardiovascular system, you need to get your heart pumping faster than normal and your lungs sucking in more air than when you sit around watching music videos on MTV. But how do you know if you're working hard enough? And how do you measure your effort?

The simplest (although least precise) way to gauge your huff-and-puff factor is the *talk test*. You simply open your mouth and see how tough it is for words to come out. If you're so breathless that you can't even say 'Russell Crowe deserves another Oscar' without gasping for breath, you're working too hard.

On the other hand, if you're able to engage in a heated debate about the merits of boxers versus briefs, you need to pick up your pace. In other words, your goal is to be slightly winded.

For most of us, the talk test provides ample indication of whether we're working hard enough (or too hard), but obviously, it's not a precise, scientific measurement. A more accurate way to gauge how hard you're working is to measure your *heart rate*. The harder you exercise, the faster your heart beats — up to a point. At some point, your heart rate reaches its maximum; even if you *try* to exercise harder, your heart won't beat faster. Max heart rate can vary greatly from person to person. During exercise you don't want to come *too* close to your maximum. Instead, you want to stay in your target training zone — a range between 50 per cent and 90 per cent of your maximum heart rate.

How do you know if you're in that zone? First, of course, you need to know your maximum heart rate. The easiest way is to use a mathematical formula that estimates your maximum based on your age. (In general, the older you are, the slower your maximum.) To find your max, simply subtract your age from 220. If you're 40 years old, your estimated maximum is 180 beats per minute. We say estimated because, in reality, your personal maximum may vary as much as 15 beats in either direction.

To find the top end of your target training zone, simply calculate 90 per cent of your max. So, if your maximum heart rate is 180, multiply this number by 0.9. The top end of your training zone is 162 — you don't want to exercise so hard that your heart beats faster than 162 beats per minute. (Actually, you may not want to exercise this hard at all. The 90 per cent level is reserved for very limited, specific training. You visit that upper range for

short spurts one or two times a week — only if your goals warrant doing so and only if you're very fit. If you are training for an event or to move up a level in fitness, you might go to 90 per cent during certain cycles of your training.)

To find the low end of your zone, simply calculate 50 per cent of your max. Fifty percent of 180 is 90. So you want to exercise hard enough that your heart beats at least 90 times per minute.

Calculate your own target zone, and then write down the high number and the low number. Next time you exercise, take your pulse (we show you how in the next section) and see whether your heart rate falls between those numbers. If your heart rate is too slow, speed up your pace, and vice versa. Keep in mind that this method of finding your target training zone is nothing more than an estimate. A doctor or physiologist can determine a more precise, personalised zone by testing your fitness level on a treadmill or other piece of cardiovascular apparatus. Many gyms and trainers can also do a less strenuous version of the medical evaluation to help you find your training zone.

## *How Do I Measure My Heart Rate?*

Knowing your target training zone is of no use if you don't know how fast your heart is beating at any one moment. Here's how to measure your heart rate:

- ✓ The low-tech way is simply to take your pulse the way the nurse does it at the doctor's office. Place two fingers (not your thumb) on your wrist directly below the base of your thumb and feel for the thumping. See Figure 20-2. Count how many times your heart beats in 15 seconds and multiply this number by four. Now you have your pulse — the number of times your heart beats in one minute.

If you have trouble locating your pulse at your wrist, you can find it at your neck. Slide your fingers into the groove on either side of your Adam's apple until you feel the beat. Just don't press too hard; otherwise, you may artificially slow your heart rate and think that you're not working as hard as you really are.

- ✓ A more convenient and more accurate way to gauge your heart rate is to buy a heart rate monitor that straps around your chest. The chest strap sends your heart rate readings to a special wristwatch, which translates the information into a number. Suppose that your target zone is between 90 and 162; if you're walking on the treadmill and you glance at the wrist-watch and see 125, you know you're doing fine. Good heart rate monitors are as accurate as medical EKG monitors.

Heart rate monitors are much cheaper than they used to be. You can buy one from around \$100. We think they are an excellent idea for beginning exercisers. They teach you how your body reacts to all levels of exercise intensity. The more sophisticated monitors — albeit the more expensive ones — allow you to download your workouts into your computer so you can chart your progress. Let's say you do your favourite neighbourhood run in 30 minutes with an average heart rate of 140. Two months later, you do the same 30-minute run with an average heart rate of 120. That's when you know it's time to pick up the pace.

Our favourite brand of heart rate monitor is Polar, although we also like Sigma, Pulse, Cardiosport and Nike. The basic \$99 Polar model, known as the FT1, simply measures your heart rate. More expensive models offer all kinds of different features, all the way up to the \$649 model, which does everything but walk your dog. It monitors your kilojoule expenditure, beeps when your pulse is too high or too low, times your workouts, and stores your average heart rate from several previous workouts. You can also buy all kinds of fancy accessories to go with it, including 'foot pod', which measures your distance and speed on foot, and a GPS unit that tracks your speed and distance outdoors. We can think of better ways to spend that much money, but a basic monitor is definitely a great idea.



**Figure 20-2:**  
You can  
take your  
pulse at  
your wrist.



## What Level of Intensity Will Give Me the Best Results?

Doing any kind of cardiovascular exercise is better than none at all, but there's plenty of research to show that the most effective way to burn through kilojoules and get fit quickly is to *interval train*. You combine spurts of high-intensity exercise, during which your heart rate is closer to the top end of your target training zone, with periods of lower-intensity exercise, with your heart rate closer to the bottom end of your target training zone.

This type of training is thought to be more effective because your body is constantly forced to adapt to a change of pace. Interval training is generally more tiring than working out at a continuous, steady pace, but the upside is you don't have to work out for as long to get the same results.



To interval train, simply choose your favourite cardio activity (such as brisk walking) and alternate between vigorous and slower movements every 60 seconds. If you're on a machine, try going hard for 30 seconds and then recovering for two minutes, or alternating 5 minutes at, say, Level 3, with five minutes at Level 5.

## If I Do Aerobic Workouts Regularly, When Will I Start Seeing Results?

Chances are that you'll have more energy and stamina within a few weeks of starting regular aerobic workouts. Those stairs at the office won't make you want to keel over anymore. You may even feel like playing ball with your kids when you get home from work. Your *vitals* such as heart rate and blood pressure probably will improve, too.

As for weight loss: This depends just as much on your eating habits, your metabolism, and your genetic makeup as it does on your commitment to exercise. So we can't give you a schedule of how quickly those kilograms can melt away. And if you're lifting weights, you may not lose weight at all because the muscle you're gaining weighs more per square centimetre than fat does. Don't worry about what the scale says; it's fat loss you're after, not weight loss. Know that fat loss is a long-term project, and you can't expect to keep the fat off unless you continue to exercise regularly.

The same goes for improving your health. From the moment you step onto a treadmill or running track at your local oval, you're doing your body some good. But if you stop working out, those benefits diminish. Most people



begin to lose aerobic power within a week. Within a couple of months, you're basically starting from scratch. Think of aerobic exercise — as with all healthy habits, including weight training — as a lifelong pet project.

## *What Is the Best Cardiovascular Machine?*

Forget the TV commercials that claim one machine is better than another: The best aerobic contraption is the one you use, whether it's the treadmill, the bike, the elliptical trainer or the stairclimber. So try them all to see which ones work for you. Some people can spend hours on the stairclimber; others would rather be locked in a cell with their boss than climb on that thing. In the kilojoule-burning department, what really matters isn't so much the machine itself but how long and how hard you work out. Running on the treadmill can burn twice as many kilojoules as walking on the machine, but you can make up the difference by walking twice as long.

## *Can I Make Cardio Exercise Machines Less Boring?*

We're not going to pretend that stepping, running and pedalling in place are thrills on par with, say, a joy ride in the Red Bull stunt plane. But using cardio machines need not be drudgery.

Listening to music can be a great motivator; studies have shown most people last longer on the machines, feel less pain and work out harder if they're rocking out to their favourite tunes. Other people prefer to read, whether it's *Who Weekly* magazine, the stock listings or a crime novel. If you exercise at home, park your cardio machine in front of the TV and schedule your workout when there's something to watch other than re-runs of *M\*A\*S\*H* or *The Bold and the Beautiful*.

Interval training, which we discuss earlier in this chapter, also helps. Learn how to use the variety of programs available on computerised cardio machines. And consider placing your towel over the machine's console so that you're not constantly reminded of how many minutes you have left.

Some gyms also have 'exertainment systems' that combine a TV and radio access all in one unit. Alternatively, you could download your favourite TV shows or movies onto your iPod, and exercise with them for company. See? We told you it didn't have to be boring!



## Chapter 21

# Stretching: The Truth

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### *In This Chapter*

- ▶ Exploring the arguments for and against stretching
  - ▶ Examining the pros and cons of the four major stretching methods
- 

**S**tretching seems like such a straightforward topic that you may expect us to explain it in a sentence or two and then show you a stretching routine. Well, as it turns out, stretching is so controversial that even the American College of Sports Medicine (ACSM), one of the most respected sports and fitness organisations in the world, didn't offer official guidelines on how to stretch until around 15 years ago — not long when you consider how long we've been studying other areas of athletics and fitness! And the organisation, which most Australian and New Zealand sporting bodies turn to for advice, still admits that a lot more research is needed to determine exactly what stretching can and cannot do for you.

In this chapter, we explain why stretching is the subject of so much debate. We outline the ACSM guidelines for stretching, describe other stretching methods that are considered promising by exercise experts and also show you several excellent stretches.

## *Why Stretching Is So Controversial*

The purpose of stretching is to lengthen your muscles and to loosen up the joints they connect to so that you can move more freely. When your muscles and joints are flexible, you can walk without stiffness, reach down to tousle a toddler's hair, or turn around when someone calls your name — everyday movements that you take for granted until you have trouble doing them. The problem is this: No one has determined with certainty the best way to guarantee these results.

It seems logical that the longer you hold a muscle in a stretched position, the more flexible it becomes — that holding a stretch for one minute would be more effective than holding a stretch for two seconds. But some research suggests that the opposite may be true. In fact, several recent studies have shown that the optimal amount of time to hold a stretch is about 30 seconds. Holding a stretch for 60 seconds doesn't seem to make you more flexible or do anything for you except waste 30 seconds of your time. And stretching several times a day doesn't appear to be better than stretching once a day.

Some experts believe that holding a stretch for 10 to 30 seconds can cause injury. The theory is that after about two seconds, something called the *stretch reflex mechanism* kicks in. This mechanism is a muscle's defence against overstretching and tearing, and it signals the muscle to shorten and tighten; so if you hold a stretch too long, the theory goes, the muscle may actually wind up tighter than when you started.

Two stretching methods we describe in the next section, PNF and active isolated (AI), address the problem of the stretch reflex. With these methods, you hold stretches for a shorter period of time than you do with traditional stretching, and you work to tire the muscle so that it has no choice but to relax. The ACSM acknowledges that these methods of stretching may be viable but states that there simply isn't enough evidence yet to make a judgement call.



Another area of controversy: Stretching is supposed to prevent injury and ease muscle soreness, but many recent studies have found that traditional methods of stretching may accomplish neither goal and may in fact *cause* injuries, such as muscle tears from overstretching. One University of Hawaii study of more than 100 runners found that the non-stretchers performed better, reported fewer injuries and experienced less muscle soreness after their running workouts than did those runners who stretched regularly. Why? Perhaps tighter muscles better stabilise the joints, thereby protecting knees and hips from the trauma of running.

However, this may be true only to a point. If muscles are *too* tight, the risk of injury appears to increase. For instance, runners who sit a lot during the day — and therefore have tight hamstrings — are prone to herniated discs because their hamstrings pull on the pelvis, rotating it backwards. Over time this creates a flat-back posture; the disc fluid moves towards the back of the disc, creating pressure and a bulge. Inflexible runners aren't the only ones who can be troubled by inflexibility. One recent study found that two and three days after moderately heavy weight lifting, less flexible exercisers feel more muscle tenderness than more flexible subjects.

Keep in mind that these are just a few studies among many, and that there is little research that attempts to prove or disprove previous studies. So basically, we're left with a hodgepodge of studies that seem to compare apples and oranges.

Despite the ambiguity of research findings on stretching, however, most experts (including the ACSM) agree that it's still a worthwhile addition to your workout routine. As a result, the ACSM has issued the following guidelines on how to stretch:

- ✓ Hold each stretch for 10 to 30 seconds.
- ✓ Do at least one stretch for each major muscle group.
- ✓ Stretch at least twice a week, preferably almost every day.
- ✓ Stretch to the point of discomfort but not beyond.
- ✓ Don't hold your breath while stretching.

## *Discovering the Different Methods of Stretching*

In this section we give you the pros and cons of traditional stretching, assisted stretching, Proprioceptive Neuromuscular Facilitation (PNF) and active isolated (AI) stretching.

To date, most stretching studies have looked at traditional stretching. The other methods of stretching show some promise in the areas of preventing injuries and easing muscle soreness. But no major studies that we know of have compared the various stretching methods head to head.

Until researchers come up with a definitive answer on the best way to stretch, we suggest that you experiment with a variety of stretching methods and find out which stretches feel most comfortable to you. You may even want to combine a number of stretching methods. You may find, for example, that you enjoy doing AI stretches for your *hamstrings* (rear thigh muscles) but traditional stretching for your shoulders.

## The rules of stretching

Follow these simple stretching rules, which apply to all methods of stretching:

- ✔ **Aim to stretch daily, but make sure you stretch at least three times per week.** You improve your flexibility the same way you get to play first grade football: practice, practice, practice. Your muscles will 'remember' to stay loose and flexible if they're reminded often enough.
- ✔ **Stretch after your workout, not before.** Follow this rule whether you're doing aerobic exercise, weight training or both. On days when you do only weight training, you need to do at least five minutes of rhythmic, low-intensity aerobic exercise such as walking, jogging, cycling or stepping. Warming up gets your blood flowing and raises your body temperature so that your muscles are more receptive to the stretch. Never stretch a cold muscle. (This rule does not apply to Active Isolated stretching, which can safely be included as part of a warm-up.)
- ✔ **Never force a stretch.** Stretch to the point at which you're right on the edge of discomfort; never to the point of 'Ouch!' Don't get into a contest with friends to see who can touch their tongue to their shoulder blade. There's no optimal amount of flexibility, so stretch within the limits of each individual joint.
- ✔ **Don't forget to breathe.** Deep, natural breathing increases your flexibility by helping you to mellow out and by sending oxygen-rich blood into your muscles. Inhale deeply just before you go into a stretching position, and then exhale through your mouth as you move into the stretch. Breathe deeply several times as you hold the stretch.
- ✔ **Don't just go through the motions and declare, 'There, I've stretched.'** Concentrate. Focus. Do you feel the stretch where you're supposed to? Are you using correct form? Do you need to back off or push a little further? However, there's no need to quiz yourself with the intensity of a prosecutor; stretching is supposed to be relaxing, after all.
- ✔ **Give priority to the muscles you use the most in your workouts and in everyday life, but don't neglect any major muscle group.** For instance, cyclists should perform a few extra sets of stretches on their thighs, calves and lower back, but they shouldn't skip upper body stretches altogether. You want your entire body to be flexible so that you can reach across the bed to snag the remote control from a spouse who inexplicably watches reruns of *The Hills* on cable.

## Traditional stretching

**What it is:** You hold each stretch for 10 to 30 seconds without bouncing. (Traditional stretching is also called *static* stretching because you hold your body still.) As you hold the position, you feel a pull that spreads up and down the length of the muscle. Traditional stretching is the method performed at the end of many exercise classes and in exercise DVDs. Right now, it's the stretching method most accepted by fitness professionals.

**Pros:**

- ✔ Almost anyone can perform at least some static stretches; you can easily modify the position to suit your level of flexibility.
- ✔ Many people find this method of stretching a good way to relax and to cool down after a workout.
- ✔ If you perform traditional stretches at least three days a week, you'll probably notice an increase in flexibility after a few weeks.

**Cons:**

- ✔ Static stretching is supposed to prevent injury and muscle soreness, yet evidence to this effect is inconclusive.
- ✔ If you're inflexible, this type of stretching may be far from relaxing. In fact, it may be so uncomfortable that you end up skipping your stretches altogether.
- ✔ Separating one muscle group from another with traditional stretches is difficult; you often are forced to stretch several different muscle groups at once. This situation is a problem if one of the muscles being stretched is a lot tighter than the others.

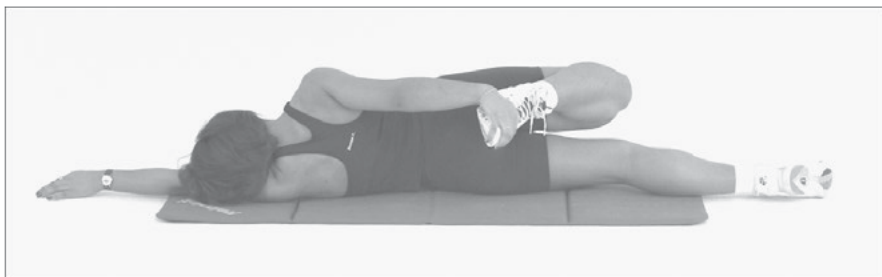


Contrary to popular belief, you should never perform traditional stretching before you warm up. Stretching in and of itself does *not* constitute a warm-up. Refer to the sidebar ‘The rules of stretching’ to learn what does constitute a proper warm-up.

Hold each of the following positions for 10 to 30 seconds. If you're a stretching neophyte, start with 10 seconds and gradually work your way up to the full 30 seconds. Do not bounce. This type of jerky, bouncing stretching, called *ballistic* stretching, may actually make you tighter or even cause injury. Get into the proper stretching position slowly and smoothly and then stay there. After you've held the stretch for a few seconds, slowly stretch a bit further.

**Quadriceps (front thigh):** Lie on your left side with your legs out straight and your head resting on your outstretched arm. Bend your right knee so that your heel is close to your butt, and then grab your ankle or toes with your right hand. Pull your heel back and away from your butt, taking care to keep your hips stacked directly on top of one another. Try to keep knees together, not separated. Don't arch your back or allow your butt to stick out. Use the image of trying to press your pocket forward and flat. After you stretch your right quadriceps, turn over (to lie on your right side) and stretch your left. See Figure 21-1.

**Figure 21-1:**  
Don't arch  
your back.



**Hamstrings (rear thigh):** Lie on your back with your left knee bent and your left foot flat on the floor. Straighten your right leg out in front of you along the floor and flex your toes towards yourself. Slowly raise your right leg off the floor as high as you can without allowing your back or butt to lift up. As you hold this position, you feel a stretch through the back of your thigh. Clasp your hands or wrap a towel around your thigh above your knee to help raise your leg. Lower your leg slowly and repeat the stretch with your left leg. Using your hands or a towel to help is an especially good idea if you are not very flexible. See Figure 21-2.

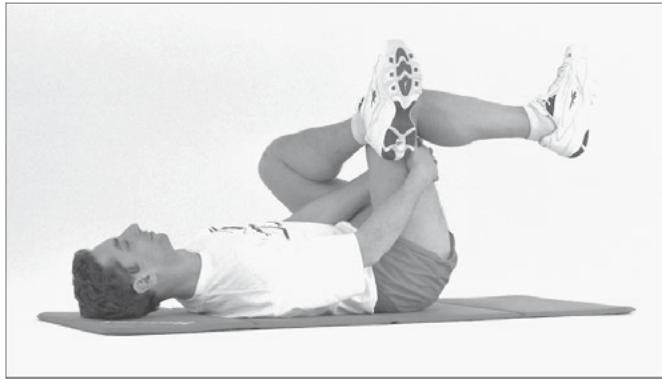
**Figure 21-2:**  
Hold this  
position to  
feel the  
stretch.



**The Pretzel Stretch (butt, lower back and outer thigh):** Lie on your back and bend your knees. Lift your legs up so that your knees are directly over your hips and your calves are parallel to the floor. Cross your left ankle over the front of your right thigh. Clasp both hands around the back of your right thigh and pull back with gentle, steady pressure. Keep your butt in contact with the floor. Don't round hips up and off the floor. As you hold this position, you should feel the stretch spread through your left buttock and outer hip and through the centre of your lower back. Repeat this stretch on your other side. See Figure 21-3.

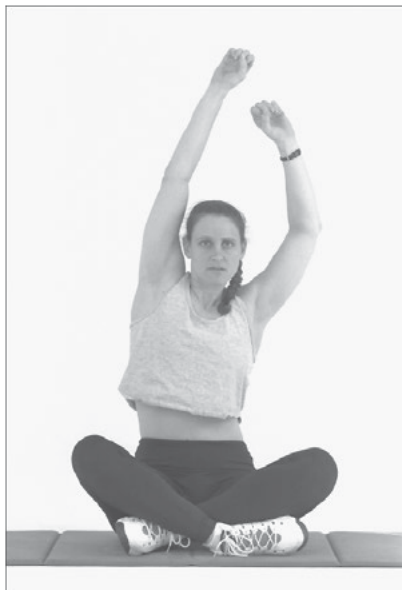


**Figure 21-3:**  
Pull back  
with gentle,  
steady  
pressure.



**Reach Up (entire upper body and lower back):** Sit up tall either cross-legged on the floor or in a chair. Make a loose fist with your hands and raise your arms directly over your shoulders. Lengthen your right arm upwards, as if you're trying to touch an object above you that's just out of reach. Hold this position for two to four slow counts. Without relaxing your right arm, stretch your left arm upwards. Sit up tall and keep your shoulders relaxed as you alternate stretching each arm upwards five times. Try to reach a little higher each time — without hunching your shoulders up to your ears. You should feel this stretch throughout the length of your spine, in the 'wings' of your upper back, and in your shoulders and arms. See Figure 21-4.

**Figure 21-4:**  
Keep your  
shoulders  
relaxed.



**Hand Clasp (chest, shoulders and arms):** Sit up tall either on a chair or cross-legged on the floor. Lean about 10 centimetres forward from your hips and clasp your hands behind your back. Drop your shoulders and shoulder blades downward as you lengthen your arms out behind you. You should feel the stretch across the top of your chest, in your shoulders, and along the length of your arms. If you don't have enough flexibility to clasp your hands together, hold an end of a towel in each hand. See Figure 21-5.



**Figure 21-5:**  
Lean  
forward  
about 10  
centimetres.

## *Assisted stretching*

**What it is:** Traditional-type stretches that require a partner. Your partner helps you into position and then gently helps you stretch further than you can by yourself. As with traditional, or static, stretching, you hold the position for 10 to 30 seconds without bouncing. The best way to learn assisted stretches is from an experienced fitness trainer.

**Pros:**

- ✔ Having someone else do a lot of the work for you is relaxing. This technique is particularly valuable for a tight muscle that you have trouble stretching yourself.
- ✔ If you have trouble mastering some of the common stretching positions, assisted stretching can help you learn the techniques while you develop enough flexibility to do them more comfortably on your own.
- ✔ A partner tends to push you a bit further than you can push yourself.

**Cons:**

- ✔ If you don't have a partner, you're out of luck (although some assisted stretches can be mimicked by using a towel or rope).
- ✔ If your partner overstretches you, you may end up injured.
- ✔ Assisted stretching requires less muscle awareness than the other techniques, so you may not learn much from doing it. (We discuss muscle awareness in the PNF section that follows.)

**Sample Move:** This stretch focuses on your lower back and butt. Lie on the floor with your partner standing in front of your feet; relax your arms at your sides and keep your head on the floor. Lift your legs and bend your knees into your chest. Your partner should place his or her palms on your thighs and gently press down and in so that your knees move even closer to your chest. As you hold this position, you should feel the stretch spread from your butt into your lower back. See Figure 21-6.



**Figure 21-6:**  
An assisted  
stretch.

## *Proprioceptive neuromuscular facilitation (PNF)*

**What it is:** The term *proprioceptive neuromuscular facilitation* sounds like some high-tech, life-saving medical procedure used by doctors on *Grey's Anatomy*, but really, it's a simple method of stretching: You get into a stretch position, tighten a muscle for about four seconds, and then allow it to relax. The theory is that when the muscle exhausts itself from the tightening, it is too tired to resist the stretch and therefore stretches further than normal.

Some PNF stretches work best with the assistance of another person; others you can perform yourself. The best way to learn PNF stretches is from a trainer who is familiar with the technique.

#### Pros:

- ✔ Many studies, including some referenced by the ACSM, show that PNF stretching is a good way to increase your flexibility.
- ✔ The tightening part helps strengthen the muscle being stretched. This is especially true if the muscle is injured and you can't do the bending and straightening necessary to perform strength-training exercises.
- ✔ Some studies have found that PNF stretching increases blood flow into joints and muscles, especially if they've experienced a recent injury.
- ✔ PNF teaches you about your muscles. If you are doing a PNF hamstring stretch, you need to know where your hamstring is and how it feels to tighten this muscle. This knowledge also comes in handy when you perform weight training exercises.

#### Cons:

- ✔ Many people find PNF stretching uncomfortable or even painful.
- ✔ You need extra motivation to tighten a muscle as hard as you can for four seconds. Not everyone has the strength or the patience for this.
- ✔ If you do PNF stretches with a partner, your buddy may be overenthusiastic and try to force the stretch beyond your capabilities, resulting in injury. Pay attention so that this doesn't happen.
- ✔ If you have high blood pressure, it's a good idea to avoid PNF stretches, because they can result in sharp, sudden increases in blood pressure.



**Sample PNF Stretch:** This PNF stretch loosens up your hamstrings. Lie on your back with your left knee bent and left foot flat on the floor. Your partner should kneel on one knee in front of your feet. Raise your right leg and place the back of your heel on top of your partner's shoulder. Your partner should place one hand on your thigh, just above your knee, and the other hand on top of your shin. Forcefully press your heel down into your partner's shoulder and concentrate on tightening your hamstring as much as possible for three to five seconds. Then relax the muscle and have your partner gently push your leg up and back without allowing the knee to bend. Hold the stretch for five slow counts and repeat the stretch three to five times. Then switch legs. To do this stretch without a partner, wrap a towel around your ankle or the back of your calf, and then pull your leg towards you as you tighten your hamstring and press it downward. See Figure 21-7.



**Figure 21-7:**  
A PNF  
stretch.

## *Active isolated (AI) stretching*

**What it is:** *Active isolated (AI) stretching* involves tightening the muscle opposite to the one that you're planning to stretch and then stretching the target muscle for two seconds. You repeat this process 8 to 12 times before going onto the next stretch. By stretching for such a brief period of time, the theory goes, you don't give the muscle enough time to trigger its stretch reflex. (We define the stretch reflex earlier in this chapter, in the 'Why Stretching Is So Controversial' section.) What's the purpose of tightening the muscle opposite the one you're stretching? When a muscle tightens, the opposing muscle has no choice but to relax.

Although AI stretching has been around since the 1950s, it's just now gaining popularity. This method is also favoured by many sports teams and elite athletes, including one of the world's fastest humans, sprinter Michael Johnson, who won two Olympic gold medals in 1996, and many Australian and New Zealand athletes, in particular the track stars. Researchers are currently studying this method and may soon offer more insight into its benefits.

### **Pros:**

- ✓ Many AI stretching exercises do a good job of isolating one muscle group at a time. For example, with an AI stretch, you can stretch the hamstrings without involving the lower back and hip muscles.
- ✓ If you are particularly weak in one area or are rehabilitating a muscle from injury, the tightening may help strengthen that muscle.
- ✓ Many people find AI stretches less painful than traditional stretches.

**Cons:**

- ✔ The technique is harder to learn than traditional stretching and some of the positions are difficult to get into.
- ✔ AI stretching is time consuming. You need about 20 minutes to stretch your entire body, whereas you can do an adequate traditional stretch routine in 5 to 10 minutes.

**Sample AI Stretch:** This move stretches your calf muscles. Hold one end of a belt or towel in each hand. Sit on the floor, and lift your left leg a few centimetres off the floor, positioning your right leg however it's most comfortable. Loop the centre of the belt around the instep of your left foot. Point your toes away from you to tighten your calf muscles and then pull your toes back to stretch your calf muscles. Hold the position for two seconds. Repeat 8 to 12 times and then stretch your right calf. See Figure 21-8.



**Figure 21-8:**  
An AI  
stretch.

## Chapter 22

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# Improving Your Balance and Coordination

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### *In This Chapter*

- ▶ Working on balance training
  - ▶ Improving your equilibrium
  - ▶ Going with vibration
  - ▶ Using gadgets
- 

**U**nless you're training to be a circus tightrope walker or a gymnast with a specialty in the balance beam, you probably haven't given any thought to improving your sense of equilibrium. The payoffs aren't obvious; after all, balance exercises don't strengthen your bones, give you buns of steel, or turn you into a kilojoule-burning inferno.

So why bother? Here's why: One out of every three people over age 65 falls at least once a year, and about 50 per cent of those who break their hips never regain full walking ability. These trips and falls are associated with a reduced sense of balance.

But what if you're only 30 years old and haven't fallen since that bully in year four tripped you on the playground? Well, think long-term. Just as it's wise to take preventive measures against osteoporosis and muscle-wasting, it's important to act now to preserve your sense of equilibrium for the future. Better balance also serves you well in dozens of sports, from mountain biking to rock climbing to rollerblading. You'll catch on to these activities more quickly and avoid injuries that would befall those with a shakier sense of balance.

This message is slowly going mainstream: Many health clubs now offer classes that use props such as physioballs, balance beams, wobble boards



and vibration machines. Several American health clubs, and a handful of Australian and New Zealand health clubs, also have a ‘rebounding’ class in which exercisers jump up and down on a miniature trampoline to sharpen their balance, coordination, and agility.

In this chapter we show you three simple moves to improve your balance and tell you about some nifty gadgets that you can use to expand your repertoire of coordination exercises.

## *Losing Balance with Age*

Special receptor cells located in your skin, muscles, joints and tendons — the fancy term for these cells is *proprioceptors* — process information about your body’s orientation as it moves through space.

For instance, when you walk across a lawn, your proprioceptors tell you things like, ‘Okay, I’m putting my feet here now. The ground is spongy because it’s grass. It has a little give and isn’t completely uniform.’ As you age, these proprioceptors become less sensitive, giving your brain less information and feedback to work with.

Now when you walk across a lawn, you don’t get quite so much input about the texture or give of the surface, and you’re more likely to stumble on little inconsistencies of terrain. Slower reflexes and decreased muscular strength, combined with deteriorating eyesight and depth perception, also contribute to a diminished sense of equilibrium.

A fear of falling may be another reason that older people experience a loss of balance. Ironically, this fear may increase the risk of falling. When people worry about taking a tumble, they try to compensate by standing with their feet farther apart and walking with smaller steps. However, these adjustments actually prevent you from judging subtle cues from the environment, like the firmness of the ground and small changes in height of the surface you’re walking on.

What’s more, poor balance results in a shaky, unsteady gait. It becomes harder to go up or down stairs or negotiate high gutters and other obstacles that you might not otherwise give a second thought. You may find it more difficult to reach for objects on overhead shelves or to stand in tight spots on trains, in line, and in crowds with your feet close together.





Fortunately, you can do a lot to reduce or reverse some of these problems and, as a result, you can become less accident-prone. One study looked at 110 men and women with an average age of 80. After three months of performing balance exercises regularly, most of the subjects had the body control of people 3 to 10 years younger.

## Balance Exercises

We think that balance exercises are best taught one-on-one or in small groups supervised by a trainer or physical therapist with a practiced eye and in-depth knowledge of anatomy and body alignment. However, you can also do a number of excellent drills on your own.

Keep in mind that balance exercises are about quality rather than quantity. Focus hard when you perform the following moves, and don't get frustrated if you're not graceful at first.

For example, walking across a low wooden beam (see Figure 22-1) requires a constant correction of knee, hip, and head alignment. All of your muscles from head to toe must work in sync in order for you to glide across the beam without extending your arms in the air or wandering off the edge.

This can be tough at first, but with practice, you can master this move in just a few sessions. After a while, balance exercises awaken reflexes and teach body awareness and control on a subconscious level. This can translate into lasting improvements in posture and overall quality of movement.

Do these exercises two or three times a week at the end of your regular weight training sessions. Start with one set of each exercise and gradually work up to three sets. If you feel that you need more work, try an additional session or two each week. This type of training is deceptively challenging and can leave you feeling exhausted and sore if you overdo it at first. Even if you learn other balance exercises, don't do more than four moves in a session.

- ✓ **Balance Beam Walk:** Walk slowly across a low wooden beam while maintaining a tall posture, keeping your knees forward and your hands relaxed at your sides. (If you don't have a balance beam, draw or tape a straight line about 5 metres long on the floor.) Place one foot directly in front of the other and stay as steady as possible. If you fall off the beam or wander off your line, simply get back on and continue from that point. It helps to focus your eyes on the end of the beam. **Easier version:** Extend your arms out to the side, but only as much as is necessary. Aim to make three back-and-forth trips. **Tougher version:** Try this when the other versions get easy: Walk backwards. See Figure 22-1.

- ✔ **Fulcrum:** With your arms relaxed at your sides, stand on one foot with your other leg extended behind you and a few inches off the floor. Lean a few centimetres forward and maintain your balance for up to one minute. Then slowly bring your foot back to the floor, and repeat with your other leg. Do three to five repetitions with each leg. **Easier version:** Rest your fingertips lightly against a wall, chair, or other sturdy object. **Tougher version:** Lean forward several centimetres more. When you get really good, you can lean forward until your torso is perpendicular to the floor. See Figure 22-2.
- ✔ **Ostrich:** With your arms relaxed at your sides, stand on one foot with your opposite knee bent and your opposite foot several centimetres off the floor directly in front of you. Hold this position for up to a minute, slowly return your foot back to the floor, and then repeat with the other foot. Do three to five repetitions with each leg. **Easier version:** Rest your fingertips lightly against a wall, chair, or some other sturdy object. **Tougher version:** Do the exercise with your eyes closed. See Figure 22-3.



**Figure 22-1:**  
Focus your  
eyes on the  
end of the  
beam.



**Figure 22-2:**  
Try to  
maintain  
your  
balance for  
up to one  
minute.



**Figure 22-3:**  
For a real  
challenge,  
do this  
exercise  
with your  
eyes  
closed!

## *Vibration Machines*

Vibration machines have exploded on to the international fitness scene in the past few years, and supposedly provide numerous benefits: everything from weight loss and an increased metabolism to greater muscle strength. You simply stand, sit or lie on the machine's platform and it vibrates, forcing your body to perform involuntary muscle contractions without much effort on your part. Sounds great, huh?

In reality, vibrations machines won't do much for weight loss or fat burning, but they sure can help with balance. Many physiotherapists are now using them to help rehabilitate the elderly after a fall, while trained athletes, such as the Australian Rugby League team and the South Sydney Rabbitohs, use them to get an edge in maximum strength and power. Vibration machines have also been found to help increase bone density and increase flexibility in gymnasts.

At \$1,500 a pop, we wouldn't recommend heading out to buy one for your home – we reckon you'd be better off spending the money on a personal trainer or some other kind of equipment. But they're definitely worth using if you happen to have one at your local gym – especially if you need to improve your balance and strength, or are recovering from an injury.

## *Other Nifty Balance Gadgets*

If you want to expand your repertoire of balance exercises, you can find some helpful gadgets at equipment specialty stores. Many physiotherapists also sell these gadgets, many of which come with manuals that demonstrate exercises. One of our favourite tools is a balance board, a round board balanced on a knob or a ball. You stand on this and balance in a variety of one- and two-legged positions. Other items we recommend: Foam rollers, physioballs, low balance beams and 'traffic' cones.

## Chapter 23

# Pills, Powders and Potions: Nutrition in a Nutshell

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### *In This Chapter*

- ▶ Sussing out supplements
  - ▶ Dividing protein facts from protein propaganda
  - ▶ Exploring how effective energy bars are
  - ▶ Fuelling your body for exercise
- 

A few years back, Doris Shafran, Liz's mother-in-law, became very ill. She felt almost constantly nauseous, her skin was flushed and she lost a lot of weight very quickly. When she began having fainting spells, she was admitted to hospital. Test after test showed nothing out of the ordinary; her doctors were baffled. Finally, a sharp doctor discovered that for more than 11 years, Doris had been taking niacin, an over-the-counter vitamin supplement that has been shown to lower blood cholesterol levels. But the niacin had built up to such toxic levels in Doris' body that it caused all the aforementioned symptoms, plus some serious impairment of her liver. She stopped taking the niacin supplement and recovered completely.

Mind you, niacin has a scientifically proven track record of reducing blood cholesterol levels, and doctors often recommend it to their patients. If you can get in this much trouble with a supplement that's well researched and may have the approval of your physician, imagine the potential dangers of taking a substance that scientists know virtually nothing about. And yet, many people are popping the latest 'miracle supplement' like breath mints or blindly following the newest diet in an effort to (a) burn body fat, (b) gain muscle, (c) increase energy, (d) get stronger or (e) all of the above.

Gym weight rooms in particular tend to double as research labs. News about the latest supplements is often bandied about like gospel, often by the guys with backs as big as barn doors. You may find yourself tempted to run down to the local health food store and stock up on the supplement du jour.

In this chapter, we give you the lowdown on some of today's popular nutritional supplements and diets, along with some sensible tips for healthy eating. No matter what substances you ingest or diets you follow, remember this: If you use your body as a research lab, you run the risk that the experiment will go awry. You may end up with unwanted hair, liver damage, or even, in extreme cases, a new address two metres underground. And some of the side effects and after effects may not be immediate. Ten years from now, the supplements you've sworn by may turn out to be the pills about which scientists say, 'We hope you never took *that*.'

## *The Scoop on Fat-Burning and Muscle-Building Supplements*



We recently read a newspaper article in which teenagers were asked why they smoke. 'If cigarettes were really so bad for you,' one kid said, 'they wouldn't be legal.' Many dieters and weight lifters resort to the same rationalisation when they buy dietary supplements of dubious value. If these pills were harmful, these people figure, the government would have pulled them off the market.

Not necessarily. In Australia, the Therapeutic Goods Administration (TGA) has limited power to regulate dietary supplements. Manufacturers do have to get their ingredient list approved, to make sure their product contains only 'safe' ingredients, but the supplement itself does not have to be tested — so no one knows exactly what the long-term effect of taking it might be. As a result, many supplements could be potentially dangerous — or a plain waste of money. And they can be sold for years before the TGA gathers enough complaints to launch an investigation. You can access the TGA's website at [www.tga.gov.au](http://www.tga.gov.au).

Similarly, in New Zealand, the government does not assess dietary supplements; as long as their ingredient lists comply with the requirements of the New Zealand Dietary Supplements Regulations, they're legally able to be sold in New Zealand. If you have any questions, your best bet is to contact New Zealand Medicines and Medical Devices Safety Authority, also known as 'Medsafe' ([www.medsafe.govt.nz](http://www.medsafe.govt.nz)).

Buying supplements off the internet is even more of a problem, since they may not have been approved for sale in Australia or New Zealand. The Australian Consumers Association (commonly known as Choice; [www.choice.com.au](http://www.choice.com.au)) and the New Zealand Advertising Standards Authority ([www.asa.co.nz](http://www.asa.co.nz)) are in charge of enforcing truth-in-advertising laws, but



these groups cannot sue every manufacturer of bogus supplements. So when you see a pill bottle that says ‘Reduces body fat and increases lean muscle!’ don’t assume that the claim is true.



You can’t always believe what you read in magazines, either. One popular muscle magazine recently ran an ostensibly objective article about supplements, stating that protein powders can be considered ‘superior’ to food because their consistency and texture make them soluble in water, so they’re therefore easier for the body to digest! No legitimate nutrition expert would tell you that protein powders are superior to food. Not surprisingly, the company that owns the magazine in which the article appeared also manufactures a whole line of protein powders — which are advertised heavily in the magazine.

So if you can’t trust advertising and you can’t be sure that the government has identified all useless dietary supplements, where should you get your nutritional advice? Certainly not from the most muscular lifter in the weight room or from the leanest member of your body sculpting class.

Instead, seek out advice from reputable sources, such as an Accredited Practising Dietitian (known as a Registered Dietitian in New Zealand), the TGA, Medsafe, and another government body, Food Standards Australia New Zealand (FSANZ). (Even though FSANZ, the TGA and Medsafe can’t yank every bogus supplement off the shelves, they do try to warn the public when products are being investigated.) The following sections look at some of the popular supplements being promoted today.

## Chitin

Chitin can be found in several weight loss potions on sale in both Australia and New Zealand. It claims to have the ability to ‘trap fat’.

- ✓ **What it is:** *Chitin* is a substance found in the exoskeletons of shrimp, crab and other shellfish.
- ✓ **The claims:** Many chitin products claim that chitin literally traps fat before it gets into your system. In other words, chitin attaches to fat in the stomach and prevents its absorption in the digestive tract. Several websites promoting chitin, and a similar compound called chitosan, make incredible weight loss claims. One site boasts about a Finnish study in which subjects lost 8 per cent of their body weight in four weeks.



- ✔ **The reality:** In reality, the few studies that have been done on chitin and related substances show that they absorb only 3 to 5 fat grams, the equivalent of a pat of butter. And these studies were performed on rats. The only research we could find that was conducted on human beings and published in a legitimate scientific journal found that, after four weeks, subjects who took chitosan supplements did not lose *any* more weight than subjects who took a phony pill. Furthermore, it's possible long-term use of the supplements may lead to nutritional deficiencies because they may prevent the body from absorbing fat-soluble substances such as vitamin D, vitamin E and essential fatty acids.

## Creatine

When creatine first became popular, this strength-building supplement was primarily marketed in powder and pill form. Now it has become so popular that it can be found in energy bars and even smoothies.

- ✔ **What it is:** *Creatine* is a nitrogen-containing substance that's produced naturally in your body and is found in meat, poultry and fish. Creatine is a building block for several amino acids, which are themselves the building blocks for protein.
- ✔ **The claims:** Creatine is said to give you more energy during high-intensity exercise so that you can work out longer and harder, thereby building more strength and muscle mass.
- ✔ **The reality:** This stuff actually seems to have some value — under certain circumstances. Several, but not all, creatine studies suggest that the substance can help weight lifters and sprinters build muscle and gain strength. The substance may also help tennis players, football players and others who play sports that require short bursts of energy (generally less than 30 seconds).

But creatine can work only if you stick to a serious weight lifting program. If you take creatine every day but don't work out, you won't get any more muscular than if you drink lemonade. Also, if you don't have the genetic predisposition towards building huge muscles, you can suck down a truckload of creatine and lift weights six hours per day, and you *still* won't be Mr Olympia. Also, individual response to creatine supplementation can vary greatly.



## 'Fat-blocking' pills

The idea of a tablet that magically helps you lose weight sounds pretty good, but does a fat-blocking pill work?

- ✔ **What it is:** An over-the-counter medication available at pharmacies called Xenical (also known as Orlistat). Xenical works by 'blocking' the action of *lipase*, an enzyme in your digestive system that is responsible for breaking down fat in food. So, when Xenical blocks the lipase, the medication stops your body from breaking down all of the fat you eat. Instead, the fat passes right through your body, is excreted out the other end, and you therefore absorb fewer kilojoules — and lose weight.
- ✔ **The claims:** Allegedly, you'll lose more weight on Xenical than you would by going on a diet alone. According to research on the manufacturer's website ([www.roche-australia.com](http://www.roche-australia.com)), taking Xenical three times a day with meals means absorbing about 30 per cent less fat from your food, resulting in an extra average weight loss of between two and three kilos a year.
- ✔ **The reality:** Xenical actually does seem to work — but it's not a magic bullet. Firstly, Xenical was designed to treat obesity, so it's not suitable for losing that extra one or two kilos. Secondly, it has to be used in conjunction with a balanced, low-fat, lower-kilojoule diet — which means that even if you didn't take it, you'd likely lose weight anyway. Finally, the side effects of Xenical are legendary — think stomach upsets, *steatorrhoea* (oily poo), and something called 'fat leakage' (which sounds entirely unpleasant). Imagine all that on a first date!

## Herbal supplements

Herbs have been used for medicinal purposes for centuries, so it was only a matter of time before someone started selling 'em for weight loss. These days, the herbal weight loss supplement industry is big business, turning over billions of dollars every year.

- ✔ **What they are:** Usually in pill form, although sometimes sold as powder or capsules, herbal supplements can contain anything from guarana and green tea to bitter orange and chromium. Unlike many other weight loss products, they're generally pitched as 'all natural', or as 'containing natural ingredients'.

✔ **The claims:** ‘High-potency weight loss’ designed to ‘maximise the body’s fat-burning ability and weight loss potential’ are typical claims — usually accompanied by some kind of ‘proven’ research and/or an endorsement from a medical ‘expert’. Herbal supplements also tend to have names like ‘FatBlasterMax’, ‘Hydroxycut’ or ‘Metabolift Max Strength’, which technically don’t mean anything — but the names sure sound good!



✔ **The reality:** Despite the clever marketing, herbal supplements are a waste of time. Let’s face it: If weight loss was really as simple as popping a pill, there wouldn’t be an obesity epidemic. At best, these pills are a waste of money, and at worst, they’re actually bad for you.



Despite being ‘natural’, herbal supplements can be more dangerous than pharmaceutical-grade drugs, because they are not required to undergo the same rigorous research before they’re sold to consumers. That means we have no idea how effective they really are — or what kind of long-term side effects the pills might cause. If the supplements do help you lose weight, it’s because the pills contain ingredients like caffeine and ephedrine, which cause you to be less hungry. Unfortunately, the side effects of these well-known appetite suppressant ingredients also include things like insomnia, anxiety, diarrhoea, twitching, dizziness and increased blood pressure — and that’s just for starters.



Herbal supplements can actually be fatal, so think twice about trying them out. Recently, one of the world’s most popular herbal supplements was linked to the death of a customer, who suffered liver failure. The same supplement was linked to 21 other cases of liver damage. This dangerous pill was then withdrawn from sale, but has since been reformulated, and a ‘new, improved’ version is now available for sale. Yikes.

## The Lowdown on Protein

Protein has always been an obsession with bodybuilders, but recently high-protein diets have become the craze among average people who are trying to lose weight. Here’s a look at what protein can and cannot do for you, whether you’re trying to slim down or bulk up.

### *The high-protein diet craze*

High-protein diet’s popularity has been bolstered by several best-selling diet books and some inaccurate reporting in major newspapers. Advocates claim that high-carbohydrate diets — the type of diet promoted by the majority of the medical community — have made Australians and New Zealanders fatter now than at any other point in history.

High-protein diet gurus tell us that eating pasta, bread, fruit and other high-carbohydrate foods make us fat because they cause a condition called *insulin resistance*. Here's the deal: After you eat carbohydrates, your body breaks them down into a substance called *glucose*, which floods the bloodstream and triggers your pancreas to release the hormone insulin. One job of *insulin* is to deliver glucose from the blood to the muscles, where the glucose is used as energy. However, according to high-protein proponents, a diet high in carbohydrates triggers *insulin resistance* — a condition that blocks the delivery of glucose and keeps insulin floating around in the blood. This excess insulin, diet books say, leads to weight gain in two ways: by causing people to crave more carbohydrates (and therefore overeat) and by triggering the body to store excess kilojoules as fat.



This theory has a few problems. For one thing, research has not proven that high-carbohydrate diets cause people to overeat. True, eating sugary foods can cause people to crave more sugary foods, and some people are more prone to this phenomenon than others. However, you can't lump all carbohydrates into the same category, as many diet books do. Pasta, multi-grain bread and apples don't trigger the same type of sugar rush as doughnuts. If you're sensitive to carbohydrates, you may need to cut back on sugary foods and you may respond well to a diet that's higher in protein, but this doesn't mean spaghetti is off limits. Everyone should aim for a mix of carbohydrate, protein and fat at each meal. For each person, the ideal ratio of protein to the other nutrients may differ.

As for the notion that insulin causes the body to store excess kilojoules as fat: Realise that *any* excess kilojoules you eat — whether from carbohydrates, protein or fat — gets stored as fat. You can't cast insulin as the evil creator of body fat any more than you can blame the supermarket checkout person for the high price of coffee. Insulin resistance is a real condition with serious health consequences, such as diabetes and high blood pressure, but it has not been proven to *cause* weight gain (and it's not as common as some high-protein diet gurus would have you believe). On the contrary, many experts believe that being overweight is what appears to cause insulin resistance. When people who are insulin resistant lose weight and add exercise to their lifestyles, the condition often disappears.



One major problem with many of the so-called high-protein diets is that many are too high in fat, particularly saturated fat (the artery-clogging kind), and low in fibre. Dr Atkins, father of the whole protein diet craze, even recommends bacon, sausage and pastrami as 'risk reducing' foods! This diet is so wacky that Dr Atkins recommends limiting your intake of most types of fruits and vegetables. Before he died, Atkins was booed at a government-sponsored diet debate when he said he would not spend any money to research his questionable theories.



So why do some people lose weight (at least temporarily) on these high-protein diets? It's the kilojoules. What none of these books tell you is that the eating plans are also low in kilojoules — some call for less than 4,200 kilojoules per day. If you eat fewer kilojoules than you burn, you're going to lose weight no matter what type of food the kilojoules come from. But beware: Chances are you're going to gain the weight back. Very low kilojoule diets tend to slow your metabolism and make you feel deprived. And in fact, upping your protein intake, especially if you have been eating low protein for a while, may initially help you satisfy your hunger more quickly. **Note:** We have nothing against protein. In fact, protein can help make a meal more satisfying so that you're not tempted to overeat. And some people do need more protein and less carbohydrate than others. But don't rely on one of these high-protein diets as a magic bullet for weight loss.

## *Can protein pump you up?*

Ironically, while many people turn to protein to lose weight, another segment of the population turns to protein for the opposite reason: to gain weight. Bodybuilders, football players and skinny guys who want to go up a few shirt sizes guzzle high-protein shakes, pop protein pills and mix up amino acid concoctions. 'Get Big Now!' boasts an ad for a chocolate-flavoured powder that contains 42 grams of protein per serving.

Do these guys have the right idea? Not really. Serious athletes do need slightly more protein than the average person. They need more carbs and fat, too. However, most Australians and New Zealanders eat twice the amount of protein they need anyway, so the chances of a weight lifter not getting enough protein are pretty slim. In fact, if you eat too many kilojoules, your body stores these kilojoules as fat, even if many of the kilojoules came from a 'Ripped Fuel Thermogenic Protein Drink'.

Although mountains of research debunk the idea that high-protein diets build muscle, this theory is alive and well in most gyms.



Our friend Mike Spike, a long-time bodybuilder, remains a staunch believer in high-protein diets. 'These theories (that high-protein diets do not help build muscle) are from a bunch of pencil-neck book writers,' he says. 'Theory does not always translate to reality, and there's the reality of millions of bodybuilders out there to back up that it does work.' Mike says he has never met a successful bodybuilder who hasn't been on a high-protein diet. 'If guys weren't doing well on high-protein diets, they (the diets) would have been abandoned years ago,' he says. Spike is a pretty big guy, so we don't want to argue with him. However, we wonder whether or not bodybuilders would actually lose any muscle if they didn't dose up on protein but continued with the same training program.

Just know that eating too much protein can cause kidney problems. Also, keep in mind that getting your protein in powder or pill form is expensive. One tin of protein powder we saw in a health shop costs \$20, which works out to \$1.18 for a serving containing 16 grams of protein. A quarter-cup serving of tuna also contains 16 grams of protein — and costs about 58 cents. (The powder and the tuna have roughly the same number of kilojoules.)

## *How much protein do you really need?*

Most people get more than enough protein in their regular diets, so you don't really need to worry about this. But if you're curious, there is a simple formula for calculating your daily requirements. Simply multiply your body weight in kilograms by 0.8 — and that's the amount of grams of protein you should aim to eat each day. So, for example, if you weigh 70 kilograms, you multiply 70 by 0.8, which gives you a total of 56. Therefore, you should aim to eat 56 grams of protein each day.



If you're weight training heavily, you can increase your intake to 1.2–1.7g protein per kilogram of your body weight each day.

## *Do Energy Bars Really Give You Energy?*

Just a few years ago, the only people who gobbled down energy bars were hardcore athletes who bought them in gyms or health food stores. Now PowerBars are as mainstream as Mars bars. You can find them — along with Aussie Bodies bars and countless others — at the convenience store checkout counter. At one recent trade show, we counted 27 different energy bar companies marketing at least 8 varieties each! You may be wondering: Are they just high-priced chocolate bars, or do they have any nutritional value? And do they all taste like mouldy chalk dust?

You may also wonder which nutrient mix is best. Some bars contain almost entirely carbohydrate. Others are high in protein and very low in carbs. Still others have an equal balance of carbs, protein and fat. Here's the lowdown on energy bars.

## *Are energy bars good meal replacements?*

No! One trade show marketer told Liz that his company's bar was the perfect food, better than anything nature has ever come up with. He made this claim despite the fact that the bar tasted like wet shoe leather and contained zero grams of fibre. The truth: Energy bars can be a nutritional source of supplemental energy — say, either before or after a workout — but they're certainly no substitute for a well-balanced meal. Even bars that contain vitamins and minerals don't offer phytochemicals and other disease-fighting nutrients found only in natural food.

The main benefit of energy bars is convenience. You can keep a bar in your gym bag or the glove compartment of your car, and it won't turn into some biological experiment. Be sure to drink a couple of glasses or a 500 ml bottle of water whenever you eat a bar. Otherwise, the bar may sit like a rock in your stomach and cause nausea. The carbohydrate has to be diluted so it can better be digested and absorbed into the bloodstream.

## *Which ingredients should I look for?*

If you use bars to fuel up before a workout or to refuel right afterwards, your best bet is a bar high in carbohydrates, the energy source that your body can use most quickly. (These bars usually contain 40 to 45 grams of carbs, about 70 to 80 per cent of their total kilojoules.) High-protein bars are popular among weight lifters, but contrary to popular opinion, wolfing down 30 grams of protein after a killer workout isn't going to speed up the process of muscle repair. Mixing a small amount of protein with your post-workout carbs can indeed help your muscles refuel, but the majority of your post-workout kilojoules should still come from carbs.

What about those bars containing 40 per cent carbohydrate, 30 per cent protein, and 30 per cent fat? Some of them may taste better than the high-carb carbs because of the added fat, but the extra fat also takes longer to digest. (And some still taste like spackle.) These bars may be most helpful for long aerobic workouts, such as a three-hour bike ride, because they will keep you satisfied longer than a high-carb bar. Just know that they provide energy less efficiently than carbohydrate-dense bars.



## Snacking and Drinking for Exercise

There's a whole lotta hype out there about food and exercise, but unless your workout goals include a Commonwealth Games medal, then a healthy, balanced diet is all you need to aim for. That means eating about 8,700 kilojoules (2,200 calories) a day; slightly more if you're looking to gain weight and slightly less if you're looking to lose weight.



Whatever your aims, there's no need to take it to extremes — if you crash diet, you might end up fainting on the treadmill (hey, it's happened before). You'll also probably then go home and devour the contents of the fridge, which we can safely say will counteract all your efforts.

### Easy snack ideas

A big meal followed by a hard workout is about as comfortable as a wedgie, but it is important to eat one to two hours before you exercise — otherwise you won't have the energy to train at your peak. The best pre-workout snacks are high in carbohydrates and low in fat, meaning they're easily digestible. Good snack options include

- ✓ A bowl of breakfast cereal with low-fat milk
- ✓ A cereal bar
- ✓ A fruit smoothie
- ✓ One piece of fruit

Once you've finished exercising, it's also important to refuel — ideally within an hour or so. A hard workout uses up all the *glycogen* (energy) in your muscles, and your body will want to restore this energy as soon as possible. If you don't eat, your body will refill its glycogen stores by breaking down muscle tissue, defeating the purpose of that workout you just did!

Along with drinking lots of water, we recommend you snack on post-workout food that contains protein as well as carbohydrates. Try to eat snacks like

- ✓ A peanut butter and banana sandwich
- ✓ Porridge or cereal with fruit and yoghurt
- ✓ Flavoured milk and a piece of toast



## Will I burn more fat if I exercise before breakfast?

Over the years, lots of hardcore dieters have sworn by the rule that exercising before breakfast will burn more fat. There is some truth to it: Your body will burn its fat stores as energy if there's no energy available from a recent meal.

But have you ever tried to exercise on an empty stomach? Trust us — it's less fun than a trip to the dentist. Plus, you probably won't

feel your best, so you're likely to end up working out at a lower intensity, and for a shorter time, so you won't burn as much energy as you would have if you'd eaten.

Unless your primary goal is to burn fat, and you can work out before breakfast without feeling unwell or too exhausted, we reckon you're better off eating something, even a small snack, before you get started.

## *What about sports drinks?*

Nothing is better than water when it comes to keeping hydrated when exercising. Sports drinks can be a good idea for replacing lost fluids, but they're really only useful if you're exercising for more than 90 minutes. Sports drinks are designed with just the right amount of carbohydrates and electrolytes to keep you well-hydrated and well-fuelled during long workouts, but they also contain kilojoules, which you probably don't need if you're just going to the gym for a regular workout. In that case, plain water will do the job just fine — and save you money, too.



Some drinks are marketed at active, sporty people, but are really just flavoured water with added vitamins. If you're exercising at a level where you need to use sports drinks, stick to reputable brands, such as Powerade and Gatorade.



# Part VI

## The Part of Tens

*Glenn Lumsden*



*'The Abs-tronic 2000 keeps me fit and healthy while letting me maintain a high calorie, indolent lifestyle.'*

## *In this part ...*

**W**e perpetuate the notion that all the important information in the universe fits neatly into groups of ten. We discuss ten ways for you to educate yourself about weight training, such as reading fitness magazines, browsing the net and spying on fellow health club members. We clear up ten myths about lifting weights, and we demonstrate ten common weight training mistakes — goofs that could leave you with some serious medical bills or simply rob you of good results. Also in Part VI, we describe ten great (G-rated) exercises that you can do with a piece of latex rubber and tell you about the best and the worst exercise products on the market. Not every manufacturer is trying to fleece you, but we found no shortage of scammers.

## Chapter 24

# Ten Ways to Educate Yourself about Weight Training

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### *In This Chapter*

- ▶ Rating fitness magazines and TV shows
  - ▶ Spying on members of your gym
  - ▶ Filtering out nonsense on the internet
  - ▶ Separating fact from fiction in weight training books
  - ▶ Finding a qualified dietitian
- 

You can't find out everything there is to know about fraternising with members of the equine species by reading *A Horse Around the House*, even though it's considered the horse owner's bible. You need more than one source of information about weight lifting, too. Once you get your bearings in the world of weight training, we suggest that you expand your horizons by trying new exercises, keeping up on the latest research, and communicating with other weight training enthusiasts. In this chapter, we offer ten ways to get smart about lifting weights. We steer you towards the reliable fitness magazines, websites and television shows, and we help you identify the misleading mumbo jumbo. Technology has triggered a flood of dubious information, so you do need to be selective about what exactly you let into your brain.

## *Read Fitness Magazines*

A decade ago, you could read about weight lifting in only a handful of magazines, and the articles featured headlines like 'Five Delt Trashers! Learn How to Get Wider than a West Australian Sunrise!' (We didn't even make that one up.) You still can find hard-core bodybuilding magazines, but in recent years, weight training has gone mainstream. Plenty of fitness magazines

aim at people who want to lift weights and still be able to fit through your average doorway. Even general-interest men's and women's magazines, such as *GQ* and *Marie Claire* and *Woman's Day*, are touting the benefits of pumping some iron.



Of course, you can't always believe what you read. We recently picked up a bridal magazine that encouraged readers to slim down for the big day by using a body wrap. 'Cheat your way to a better body by toning up the easy way and using a centimetre-loss treatment', the article advised. That's like suggesting that you cheat your way to becoming a lawyer by hanging a diploma on your wall. Many of the men's magazines are no better. One of them featured an article titled, 'Lose That Gut: A No-Sweat Program'. Yes, the program involves no sweat — it's simply a bunch of abdominal exercises. But, as we explain in Chapter 12, ab exercises won't flatten a flabby belly.

Don't assume that the models in fitness magazines developed their perfect bodies by performing the workouts pictured. Most of these people are among the small minority who are genetically programmed to carry minuscule amounts of body fat — and they often starve themselves, on top of that. Furthermore, most photographs these days are Photoshopped. One prominent fitness magazine even slimmed down the hips of a world-class female tennis star. You know that if one of the best athletes in the world can't even grace a magazine cover with her body as is, the magazine's standards are worrisome.

For weight training information, we tend to favour mainstream fitness magazines over general-interest publications. Typically, the articles are more accurate, and the exercise instructions are more complete. Here's a look at the weight training coverage of some better (and larger) fitness magazines. This list is limited to publications that cover weight training in every issue.

- ✓ **Australian Men's Fitness** ([www.mensfitnessmagazine.com.au](http://www.mensfitnessmagazine.com.au)): You may find inspiration from this magazine's Success Story department; each month the column chronicles one guy's odyssey from fat to fit and lists his weekly workout schedule.
- ✓ **Men's Health** (Australian version: [au.lifestyle.yahoo.com/mens-health/](http://au.lifestyle.yahoo.com/mens-health/) or New Zealand version: [lifestyle.yahoo.co.nz/mens-health/](http://lifestyle.yahoo.co.nz/mens-health/)): This magazine lives up to its name, even if the cover headlines — 'Rock Hard, Right Now', for example — tend towards the preposterous.
- ✓ **Prevention** (Australian version: [au.lifestyle.yahoo.com/prevention/](http://au.lifestyle.yahoo.com/prevention/) or New Zealand version: [lifestyle.yahoo.co.nz/prevention/](http://lifestyle.yahoo.co.nz/prevention/)): Aimed at female readers 40-plus, this magazine takes a realistic approach to fitness, weight loss and muscle building for women who aren't 20-something gym bunnies any more (and have no desire to be).

- ✔ **Shape** ([www.shapemagazine.com.au](http://www.shapemagazine.com.au)): Big on celebrities and light on practical info, but each issue does include some weight training advice.
- ✔ **Women's Health** (Australian version: [au.lifestyle.yahoo.com/womens-health/](http://au.lifestyle.yahoo.com/womens-health/) or New Zealand version: [lifestyle.yahoo.co.nz/womens-health/](http://lifestyle.yahoo.co.nz/womens-health/)): This magazine promises to help you find out 'everything you want to know about having a healthy body, diet, relationship, lifestyle and even a healthy bank balance' — and it delivers on its promise. There are tonnes of excellent weight training workouts, too, often with tear-out cards that you can take to the gym.
- ✔ **Other magazines:** The following magazines cover strength training fairly regularly: *Healthy Food Guide* (both Australian and New Zealand versions); *Good Health*; *Women's Health and Fitness*; *Weight Watchers*; *Oxygen*; *NZ Fitness*; *Runner's World* and *Oz Fitness*. Even some of the more general interest women's magazines such as *Women's Weekly*, *Cosmopolitan* and *CLEO* are now featuring weight training routines that you can do at home with little equipment.

## Be a Voyeur



We know that you may be witnessing some mighty bad form at the gym. Just recently we watched a guy bounce the weight up and down on the 45-degree Leg Press machine (refer to Chapter 14) by folding his legs into his chest so that his knees were practically in his mouth, and then exploding his legs straight up with such force that you could actually hear them snapping. As a beginner, you may not feel confident enough to distinguish good form from bad. In reality, worthless (or dangerous) exercises share a number of characteristics that are easy to spot. Use these clues to help determine whether a movement you're witnessing is one that you should forget you ever saw.

Don't emulate a fellow club member if

- ✔ **Grunting appears to be an essential part of the exercise.** A person should be able to move a weight without letting loose sounds that rival Tarzan's call to the wild elephants.
- ✔ **You hear more clanging and banging than you would in the kitchen of the trendiest restaurant in town.** A person who is performing an exercise correctly moves the weights with control and without sound effects.
- ✔ **The lifter engages in extreme bodily contortions.** We once saw one guy shimmy into a machine backwards, stretching his arms way behind him to grab the handles. All he had to do was turn around.

- ✔ You ask which muscle an exercise is supposed to strengthen and the lifter replies, 'I don't know, but I sure feel it in my lower back.' A person who doesn't know which machine does what is not someone from whom you want to learn anything.
- ✔ The exercise involves grand sweeping gestures that appear to threaten the safety of others. When you see people ducking to avoid the guy in the corner moving a heavy barbell in expansive arcs, this is a good tip-off that you don't want to include the move in your repertoire.

## Browse the Internet



Browsing the net is a great way to find out about all aspects of weight training, from performing the perfect Deadlift to lifting while pregnant. It's also a good way to waste four hours sifting through a bunch of self-promoting gobbledygook. Sometimes the internet can seem to be the mother of all infomercials. Any yahoo with a home computer and the right software program can serve up a website. A recent Google search yielded more than 26 million hits for the phrase *weight training*, in just 0.04 of a second! You could spend the rest of your life sorting through the nonsense.



Because fitness websites come and go faster than sitcoms on Channel 10, we're not going to give you specific recommendations. Instead, we offer these tips on how to judge the weight training information you read online:

- ✔ **Don't consider FAQs the gospel.** One of the most inconsistent sources of information on the Web are FAQs, or *frequently asked questions*. These pages answer common questions about a particular topic, such as training your abdominals, designing your workout routine, and taking nutritional supplements. One website lauded creatine as the secret to weight loss and muscle building while another site deemed the substance totally useless. (Refer to Chapter 23 for our take on creatine.) Just because 'FAQ' sounds like 'FACT' does not mean the information provided is accurate.

The authors of one fitness FAQ touting high-protein diets stated that they 'assume no responsibility for errors or omissions, or for damages resulting from the use of information contained herein'. You should read this as: 'Take our information with a grain of salt.' Keep in mind that no respectable magazine or newspaper would provide information and then say, 'What you just read may or may not be true, and if it's not true, it's not our fault.'



- ✓ **Be wary of product recommendations.** You can trust the product recommendations in this book because we, the authors, do not make money out of the products that we recommend. However, you can bet that most fitness websites do have a financial interest in the product that they tell you about, especially if you can purchase the product directly through the site.

One fitness website, which contains plenty of accurate training tips, provides a lengthy list of weight training books. Some of these books are excellent; others are lousy. One book touts the wacky theory that the more lactic acid you produce by lifting weights, the more growth hormone you produce, which, in turn, speeds up fat loss. Fourteen of the book's 88 pages are essentially advertisements for a nutritional supplement company.

The bottom line: Even if a website appears to be offering sound advice, don't assume that you can trust the products it recommends.

- ✓ **Put more trust in nonprofit sites than those trying to make money.** In general, you're more likely to find accurate, unbiased information on sites that are sponsored by major fitness organisations, such as those listed in Chapter 5, or by government organisations. Many university physical education programs have their own fine websites that offer the latest in exercise research; look for sites with names that end in `.edu` or `.org`, signalling that they are run by accredited schools or legitimate not-for-profit organisations.
- ✓ **Use your common sense.** Don't let the Web be your only source of weight training information. Double check any advice you get with other sources, such as magazines or qualified trainers.

## *Read Books*

Naturally, we feel that books are an excellent way to find out about weight training, or we wouldn't have bothered to write one. A weight training book can offer the depth that a magazine article, TV show or DVD can't. Weight training books are especially helpful for learning new exercises and new ways to organise your weight routine. The best books are those that don't promote a particular program and instead offer you a variety of exercises and routines to choose from.

## *Weight training books we like*

We offer this glance at some of our favourite weight training books that are excellent for novices.

- ✔ *Strength Training Anatomy* by Frederic Delavier (Human Kinetics Publishers) and its counterpart, *Women's Strength Training Anatomy*, are excellent guides not only to weight training, but training even if you have injuries. Great for beginners *and* experts.
- ✔ *A Woman's Book of Strength* by Karen Andes (The Berkley Publishing Group) is aimed at level-headed women who aren't trying to achieve physical perfection — women who don't relate to the 'timid, anorexic-looking waifs that flood the fashion pages'.
- ✔ *The Complete Book of Abs* and *The Complete Book of Butt and Legs* by Kurt Brungardt (Villard) manage to live up to their names, demonstrating more than 70 exercises for the aforementioned body parts.
- ✔ *Keys to the Inner Universe* by Bill Pearl (Bill Pearl Publishing) contains every free weight exercise known to humankind. Let's just say that, when you stand on this book, you can reach the top shelf in your closet.
- ✔ *The Complete Home Fitness Handbook* by Ed Burke (Human Kinetics) offers no-nonsense advice on how to choose a multi-gym, a free weight bench, or other pieces of home weight training (and cardiovascular) equipment.
- ✔ *The Return to Glory Days* by Morton Dean and Benjamin Gelfand, P.T. (Pocket Books) is a head-to-toe guide to treating and preventing sports injuries. It should be on every weight lifter's bookshelf.
- ✔ *Dumbbell Training for Strength and Fitness* by Matt Brzycki and Fred Fornicola (Blue River Press) is a nicely convenient guide focusing entirely on exercises you can do with dumbbells. Slip it into your bag when you're travelling and don't know how extensive the facilities will be at the hotel gym.
- ✔ *Strong Women Stay Young* by Miriam E. Nelson (Lothian Books) details basic resistance exercises that are suitable for all ages and fitness levels.
- ✔ *How to Get Fit While You Watch Television* by Peter Hadfield (ABC Books) might sound gimmicky but former professional athlete Hadfield has some sound and easy-to-follow advice.



## Signs of a lousy weight training book

The aforementioned books are some of the good ones. Unfortunately, a lot more bookstore shelf space is taken up by volumes that would be better used as kindling. The least useful are those written by authors who claim to have developed the world's best routine. One author says that he has 'invented ... a fitness methodology that is more effective than *anything* in existence'.

Here's a handful of other misleading statements we found in a recent trip to the bookstore:

**The statement:** 'It doesn't matter what your genetic tendency is. You'll overcome it with this program.'



**The reality:** Nothing, except perhaps drugs, can change the way your body responds to weight training. Even if *Home and Away's* Alf followed precisely the same program as the reigning Mr Universe, he is not going to win any bodybuilding contests.

**The statement:** 'Two-kilogram weights are all you need.'



**The reality:** The book in question is devoted entirely to routines that use two-kilogram dumbbells. But this violates one of the major rules of weight training: You need to challenge each muscle group in order for it to get stronger. Two kilograms might fatigue your rotator cuff muscles, but to your back muscles, lifting two kilograms will feel like lifting a cup of yoghurt. To firm up your body, you need to lift heavy enough weights so that your muscles fatigue within 15 repetitions.

**The statement:** Giant sets are 'better than aerobics or jogging'.



**The reality:** As we explain in Chapter 17, a *giant set* involves stringing together one set each of three different exercises without resting between the sets. Giant sets are a terrific way to challenge your muscles, and eliminating the rest period between sets does get your heart pumping faster than it otherwise would. However, as a workout for your heart, giant sets are vastly inferior to aerobics or jogging. In Chapter 20, we explain what constitutes a legitimate cardiovascular workout.

## Hire a Cyber Trainer

Hiring a real-live personal trainer is one of the best ways to learn about weight training; that's why we've included trainers in our chapter about weight training deals and duds (see Chapter 28). There's no substitute for the sharp eye and hands-on experience of a qualified personal trainer. However, if you don't have access to a flesh-and-blood fitness professional, you can still learn a lot from a cyber trainer — a trainer who offers advice and routines online.

Like many fitness sites found on the Web, cyber trainers are a mixed bag. Some are run by reputable, knowledgeable professionals and offer safe, sound training advice. Others are run by charlatans looking to bag big bucks from gullible consumers. Here are some tips to help you distinguish the sensible from the schlocky:

- ✔ **Look for sites staffed by certified and experienced fitness professionals rather than famous athletes or well-known bodybuilders.** See Chapter 5 for a list of legitimate certifying organisations. Some certifications sound important but in fact require nothing more than the ability to type in your credit card number over the internet.
- ✔ **Choose a site that assigns one trainer to you for your entire tenure.** Some sites put all of their trainees in one 'barrel,' and you get your training and advice from whichever trainer happens to be on duty that day. This breaks up the continuity of your training. If you hired a live personal trainer, wouldn't you expect the same person to show up each session?
- ✔ **Look for personalised attention.** The good cyber trainers ask you to fill out a health history questionnaire, ask about your goals and experience, and tailor a routine specifically to your needs.
- ✔ **Try before you buy.** Many of the reputable sites allow a trial period before you commit. By the way, don't assume that the cheaper sites are the bargain they appear to be. (Fees generally range from \$20 to \$200 per month.) The low-cost and free sites survive on advertising and sales and tend to heavily promote dubious supplements and cheapo exercise products.
- ✔ **Look for extra features.** Some sites offer charts that track your progress and email reminders to keep you motivated.
- ✔ **Look for a site that features an exercise technique library.** This is a graphic catalogue (sometimes containing audio and video) depicting the exercises included in your routine.

## Watch Fitness TV Shows

Chalk it up to the brilliance of television producers: They've found a way to combine the ultimate couch potato device (the TV) with the ultimate health practice (exercise). Cable channels in particular are home to that oxymoron of oxymorons, the television exercise show. The cable explosion has dramatically expanded air time for fitness shows.

Exercise programming can fill in the gaps on days when you can't get to the gym or when you've done every DVD in your library so many times that your player has begun rejecting them.



We know one group of guys who schedule their health club workouts when fitness programs are showing on their club's TVs. One guy actually began performing the Lat Pulldown correctly after he watched the star of a TV fitness program lecture about the importance of keeping your torso still as you pull the bar down.

Surprisingly, many TV weight training shows are worth watching. True, you feel a little lost during commercial breaks. But most of the shows offer a safe, sane approach to fitness. Heaven knows these shows are a giant step up from those infomercials masquerading as fitness information programs.

## Hook Up with an Advice Board

An online advice board posts questions and answers about a particular topic, whether it's *Neighbours*, tattoos or weight training. Advice boards aren't in 'real time', as we say in internet lingo for events that are happening right now. You submit a question and then other people post an answer to you on the same board (or sometimes directly to you via email). An advice board can be a great place to ask questions that you're too shy to ask at a health club, such as what sports bra to wear at the gym if you're a size 38EEE. Many people write in and ask for advice on working out at home. For instance, we see people exchanging weight training DVD recommendations all the time. They even ask for advice if they are getting bored with their routine. Also, you get the benefit of a variety of viewpoints. For instance, if you find yourself lacking in motivation, dozens of people will write in with their suggestions about how to get back on track.

However, an advice board can also be a place to get lousy opinions. Liz runs a board for *iVillage.com*, a lifestyle website for women. She constantly has to go in and warn participants against advice that readers give to each other about useless or even dangerous weight loss plans. (One woman suggested fasting for 10 days every month.)

The best advice boards are patrolled by experts so they can help make sense of the information flying back and forth. Experts also answer many of the questions themselves. We think advice boards are a great way to get support from others, but be sure to let common sense — not wishful thinking — prevail.

Many advice boards also have accompanying chats led by experts in real time. You can log on at appointed times, ask your questions, and get immediate feedback. Because the other chatters are also interested in the same topics you are, this is a good way to get camaraderie and motivation from fellow exercisers. Some fitness enthusiasts even find internet pen pals and workout partners through organised chats.

Advice boards related to weight training can be found virtually everywhere on the Web. Stick to large, reputable sites that use experts and screen their boards daily. [iVillage.com](http://iVillage.com), [oxygen.com](http://oxygen.com) and [fitnessonline.com](http://fitnessonline.com) are good sites that offer a host of good fitness information and plenty of health and fitness boards for you to pick and choose from.

## *Hire a Qualified Dietitian*



Sometimes, in our quest to get fit, we go nuts with a new exercise routine and forget that working out is only part of the equation; nutrition is equally important. If you're short on iron or protein or some other nutrient, you may run out of gas during your workouts. If you're eating too much, you'll have a hefty layer of fat covering the muscles that you're working so hard to tone. Most of us have little insight into our own eating habits. Think about it: Do you have any idea how much fibre or folate you ate today? Do you even know which foods contain these nutrients?

A dietitian can assess your eating habits and suggest ways to reach your goals. Most dietitians ask new clients to keep a three-day food diary before the first meeting. You have to write down everything you consume — every Tim Tam, every glass of apple juice, every handful of peanuts. The dietitian punches this information into a computer program that spits out your average daily intake of important nutrients.

### *How to find a qualified dietitian*

To make significant changes in your eating habits, you may need more than a single counselling session. We suggest signing up for three to five. A session costs \$90 to \$150. Make sure you consult an Accredited Practising Dietitian, or APD (called a Registered Dietitian in New Zealand) — not simply

a ‘nutritionist’, a term that implies no particular qualifications. APDs (and Registered Dietitians) must pass a tough exam and put in hundreds of hours of internship time in a clinical or hospital setting before they are let loose in the real world.

Many APDs and RDs also have masters degrees. To find a qualified dietitian in your area, go to the Dietitians’ Association of Australia website at [www.daa.asn.au](http://www.daa.asn.au), or call them on (02) 6163 5200. If you’re in New Zealand, enquire with the New Zealand Dietitians Board at [www.dietitiansboard.org.nz](http://www.dietitiansboard.org.nz) or (04) 474 0746. You could also get a recommendation from a friend or a good gym.

## *Signs of a sharp dietitian*

As with trainers, education doesn’t mean everything. A good dietitian should

- ✓ **Ask you what foods you like and what foods you don’t like, and tailor your eating plan to these preferences.** A dietitian should not insist that you include or eliminate a particular food. If you love chocolate or detest broccoli, your dietitian should be able to work within those guidelines. (Just don’t expect to eat three chocolate bars a day or to eliminate vegetables from your diet.)
- ✓ **Not attempt to sell you any dietary supplements or products.** If your dietitian tries to sell you anything, find a new one, pronto.
- ✓ **Help you make gradual changes in your diet.** If you suddenly stop eating fat or drastically cut back on kilojoules, you’ll feel deprived and probably give up.
- ✓ **Educate you.** A dietitian needs to do more than suggest that you eat oatmeal with blueberries for breakfast. She needs to explain why those foods make for a nutritious breakfast — and teach you the components of a good meal so that you can put one together on your own.
- ✓ **Urge you to be patient and set realistic goals.** If you tell your dietitian that you’re going on a Caribbean cruise in a month and want to lose 8 kilograms before you set sail, she should tell you to stop dreaming.
- ✓ **Assess your progress.** If you don’t seem to be gaining energy or slimming down, your dietitian should re-examine your eating habits and figure out where you’ve gone wrong.

## Keep a Training Diary

Earlier in this chapter, we discuss ways of learning about weight training through other people, including authors, health club members and online fitness enthusiasts. But you also can learn a great deal from *yourself* by keeping a diary of your weight training workouts. In Chapter 3, we describe in detail what information to record. Here's just some of what you can learn from your notes:

- ✔ **Whether you're making progress:** If you log how much weight you're lifting, you'll notice when you come to a plateau. If your Lat Pulldown has been stuck at 20 kilograms for three months, perhaps it's time to make some changes in your routine.
- ✔ **Whether you're working out as often as you think you are:** Telling everyone you lift weights three times a week is impressive cocktail party banter, but it won't do you any good if it's not true. Your diary is a good reality check.
- ✔ **Whether you're getting a balanced workout:** Even if you are lifting weights three times a week, you may be neglecting a muscle group or two. Perhaps you've been training your abdominals only once a week. If you glean this bit of information from your diary, you might want to perform your ab exercises first for a while, to get yourself back into the habit of doing them.

## Get Certified as a Trainer

This suggestion may seem too advanced for a weight training novice. And indeed, we're not suggesting that after one month in the weight room, you're ready to become a trainer to the stars. However, you may want to keep certification in mind as a future option. At some point, you may find that you really dig weight training and you want to get a real education — either to improve your own workouts or to train other people.

For the typical fitness enthusiast, we recommend aiming for the Personal Trainer certification by the Fitness Institute of Australia ([www.fia.com.au](http://www.fia.com.au)) 1300 136 632 or The Australian Institute of Fitness ([www.fitness.edu.au](http://www.fitness.edu.au)) at 1300 669 669.

## Chapter 25

# Ten Myths and Misconceptions about Weight Training

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### *In This Chapter*

► Busting the myths about bulking up, slimming down, stretching and safety

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**H**uman beings finally stopped believing the Earth is flat and that you get warts from toads. Now we'd like to push the human race yet another step forward by clearing up the misconceptions and misinformation related to weight training.

This is actually important stuff. If people really knew about weight training, they'd suffer fewer injuries and see results more quickly, and they'd better understand what weight training can and cannot do for them. They'd be less likely to waste money on a dodgy product or buy into a bogus concept.

In this chapter we clear up ten of the most prevalent myths related to weight training. Many of these are based on what we like to call 'gym science'. The reasoning behind the myth may have a grain of truth or contain some official-sounding mumbo jumbo. But when you dig underneath the surface, even just a little, the theories don't hold weight.

## *Myth #1: You'll Get Huge Unless You Lift Light Weights*



Perhaps the single most common weight training myth is that unless you lift very light weights, your muscles will bulk up to Mr Olympia proportions. Suzanne recently worked out with a bike racer named Garth, who had the typical cyclist's physique: powerful legs and a narrow, wimpy upper body. When Suzanne took Garth to the weight room, he was apprehensive about lifting anything heavier than a shaving cream bottle. 'I don't want to get too big,' Garth said, to which Suzanne replied as politely as possible: Get real!



Here's the reality: The only way your muscles will burst the seams of your dress shirts is if you regularly lift extremely heavy weights — so heavy that you can perform only about three to five repetitions — *and* if you have a body type that will even allow for the development of mega muscles. Most of us — men and women — couldn't build enormous muscles even if we devoted several hours a day to this pursuit and took illegal steroids.

The reason we're making such an issue of this myth is that it prevents many exercisers from pursuing an effective weight training program. If you lift dinky weights, you won't preserve or build enough bone density to help prevent osteoporosis. You won't get much in the way of muscle toning benefits, either. Some people perform 30 to 40 repetitions (or 10 repetitions with a weight so light they actually could perform 20 more). But when you can lift something 30 or 40 times, it doesn't challenge your bones or muscles enough to make a difference.

If you have a muscle-growth phobia, do one or two sets for each major muscle group. Use a weight heavy enough so that your last repetition — in the 8 to 15 range — is particularly challenging.

## *Myth #2: You're the Only One in the Gym Baffled by the Equipment*



Trust us: Nobody is born knowing how to operate the Assisted Dip Machine or how to perform a Dumbbell Chest Press! Weight training equipment can baffle even the sharpest of minds. We consider Liz's mother to be a highly intelligent person, yet the first time she encountered the Shoulder Press Machine she sat down backwards. The three of us have made similar mistakes ourselves, and we like to think we know a thing or two about weight training.

It may *seem* like weight training is second nature to everyone at your gym, but that is not the case. Those who know how to use the equipment properly were *taught* to do so. And many of the people who swagger around with confidence actually have no clue what they are doing. We have seen large bodybuilders use machines in ways that would almost seem creative if they weren't so dangerous.

So, rather than stare in wonder at the machinery, simply ask a trainer to teach you how to use it. If you feel shy about asking a trainer, discreetly observe other members using the equipment. Or, hire a trainer for a session or two to show you the ropes. Soon, *you'll* be one of the people that gym newcomers seek out for help.



## Myth #3: Lifting Weights Is Dangerous

If any of the female newsreaders on Channel 10 tried to hoist a 150 kilogram barbell overhead, that would be dangerous — no argument there. But if you follow the safety precautions explained in Chapter 2, you will find that strength training is perfectly safe.

In fact, not only is strength training safe, but pumping iron can actually *prevent* injuries. With stronger muscles, tendons, ligaments and bones, you're less likely to fall and sprain an ankle or fracture a wrist. And if you do fall, a strong body can limit the damage.

The key to safe weight training is good technique. Most injuries happen when someone uses poor form, either because they were lifting too much weight or not paying attention. Chapter 26 describes in detail ten common mistakes that frequently lead to injury. If you avoid these mistakes and use common sense, you're very likely to remain injury-free.

## Myth #4: Thigh Exercises Will Slim Your Thighs, and Ab Exercises Will Whittle Your Middle

We wish we could afford to purchase prime-time TV commercials that would set the public straight on this issue. The truth is you cannot melt the fat off of any particular body part by performing exercises that target that area. Abdominal exercises will strengthen your abs, but they will do nothing to reduce the layer of fat sitting on top of your abdominal muscles. The Butt Blaster will tone your derriere, but it will not diminish its size.



There simply is no such thing as spot reducing. In other words, you can't selectively zap fat from your abs, thighs, arms or any other body part. In fact, the kilojoules you burn from doing abdominal crunches may help you lose weight in your arms if that is how your body is genetically programmed.

Even though you can't spot reduce, you *can* strengthen and firm up specific areas. Stronger, well-toned muscles always look better than weak, flabby ones, even if there happens to be a bit of extra fat covering them.

## *Myth #5: The Best Trainers Are Those With the Best Bodies*



At Suzanne's gym, there is a trainer whose muscles are so perfectly sculpted that he looks like a replica of Michelangelo's David. Gym members flock to this guy, hoping — presumably — that he can help them develop the physique he has built for himself. Yet when Suzanne observes this trainer with clients, he barely pays attention to them. Often he is watching football reruns on the club's TV while his clients perform their exercises with atrocious form.

Just because a trainer has a phenomenal body doesn't mean that he has good teaching skills or the knowledge to tailor a program to the more genetically challenged clients who hire him. Screen your trainers carefully, following the tips we offer in Chapter 5.

## *Myth #6: Lifting Weights Won't Help You Lose Weight*

Wrong! Lifting weights is an essential part of a weight-loss program. Developing muscle is the only way to boost your metabolism, which can help you lose fat and keep it off.

When you lose weight by dieting alone — or by combining a diet plan with cardiovascular exercise — you tend to lose muscle along with fat. With less muscle, your metabolism slows down, making it easy for you to gain back the weight. However, when you add weight training to the mix, you preserve muscle mass as you shed fat.

If you lift weights two or three times a week, you're likely to gain about 0.5 kilograms of muscle per month for about six months, after which the rate of increase slows down. Adding muscle is well worth the effort: For every 1.5 kilograms of muscle you build, research shows, you increase your resting metabolic rate by about 7 per cent. So if your body burns 5,040 kilojoules per day (not counting exercise or any other movement), you'd burn an extra 352 kilojoules per day.

## *Myth #7: There's One Best Weight Training Program*

Many exercisers perform three sets of 10 repetitions for each exercise as if that routine had been written into federal law. Others blindly follow the programs of their favourite athletes or models, as described in fitness magazines.

In reality, there is no ideal program — and no one program that works best for everyone. There are countless ways to build strength and firm up your body, as we explain in Chapters 16 and 17. No matter what you read in magazines, see on infomercials, or hear from your best friend, weight training is part art, part science. You've got to fiddle around with your program until it suits your goals, your body type and your time schedule. Of course, you've got to stay within the parameters we give you in this book; if your ideal program involves lifting once a month, that's not going to cut it.

There are so many different training techniques that researchers will never be able to compare them all. So try 'em all and see which seem to work best for you. Keeping a weight training diary and periodically testing your strength (refer to Chapter 3) can help you determine if your program is working.

## *Myth #8: Stretching Is a Good Warm-up for Weight Lifting*

We strongly believe in warming up for weight training, but stretching is not the way to do it. Before lifting weights, do at least a few minutes of easy cardiovascular exercise such as brisk walking or stationary cycling. These types of activities increase blood flow to your muscles and literally warm them up so that they will be more pliable.



You can stretch your muscles after your warm-up or after your weight training session; we prefer stretching at the end of our entire workout because it's a great way to relax and cool down. Another option is to stretch during the rest periods between weight training sets. This way you won't be tempted to skip stretching at the end of your workout.



Although you do need to warm up before you stretch, there is one exception to this rule: active isolated stretching. This form of stretching, described in detail in Chapter 21, calls for you to tighten the muscle opposite the one you are stretching and then stretching the target muscle for two seconds. You repeat this tighten-stretch combination 8 to 15 times before moving on to the next stretch. Active isolated stretching is acceptable as a warm-up because it is designed to increase blood flow and raise the temperature of a muscle. You don't have the same risk of injury that you do when you hold a stretch position for 10 to 30 seconds as you do in traditional stretching.

## *Myth #9: Free Weights Are for Muscle-heads and Machines Are for Beginners*

Many novice lifters think the free weight room of a gym is some kind of special club for bodybuilders and steroid-pumping football players. In reality, everyone is welcome to work out there, and novices should make a point of learning to use the equipment.

Sure, dumbbells and barbells are a bit more risky than weight machines, but if you follow the simple safety precautions explained in Chapter 2, you should have no problem. Free weights enable you to do dozens, if not hundreds, more exercises than you can do with machines, and the variety will help you stay motivated. You may find that you prefer certain movements on machines and other movements on free weights. So, unless you have certain physical limitations — such as extreme muscle imbalances or poor coordination — we recommend that you mix free weights into your weight training program.

We also recommend a mix for advanced lifters, too. Some weight room veterans develop inflated egos and think their muscles will instantly shrink if they use equipment that involves a pin and a stack of weight plates. But there are many exercises — such as the Seated Row and Leg Curl — that simply cannot be duplicated with free weights.

## *Myth #10: Not Everyone Needs to Strength Train*

Some people may think they're 'not the weight training type'. Perhaps they enjoy hiking or biking or tennis and feel that they are getting plenty of exercise already. Maybe they feel they are in tip-top shape because they can run a marathon or cycle 75 kilometres without getting tired.

But cardio exercise is only part of the equation. As scientists learn more about ageing and the human body, it's clear that muscle and bone strength are just as important for good health and quality of life as a fit heart and lungs. There simply is no substitute for strength training, which is the only way to slow down the inevitable deterioration of muscle and bone as you age. Walking, jogging and other 'weight bearing' activities do help preserve bone, but they are not enough.

We believe that every adult should pursue some sort of strength training program, whether it's at home or at the gym, whether it's a one-set routine twice a week or a periodised split routine six days a week (for an explanation of all that gobbledegook, refer to Chapter 17).

You may have to nudge yourself to start a program, but once you get into the habit of lifting weights, you'll feel so strong and energetic that you'll never want to quit.



## Chapter 26

# Ten Major Weight Lifting Goofs

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### *In This Chapter*

- ▶ Highlighting common weight training mistakes
  - ▶ Fixing weight training errors
- 

**W**e witness some awfully strange things in weight rooms. Not long ago we saw a guy performing the Lat Pulldown (see Chapter 8) in a way that resembled an attempt to slice a giant wedge of cheese. And we saw a woman doing some martial arts-type punching movements with 4-kilogram weights in her hands. One wrong move and she would have flown into the mirror. Some of these mistakes simply make the exercises ineffective; other goofs can result in serious injury. Avoid the ten weight training mistakes discussed in this chapter.

## *Cheating Your Abs*



To listen to abdominal gadget infomercials, you'd think that it was impossible to perform an abdominal crunch correctly without some sort of machinery. The truth is, you are perfectly capable of crunching correctly without any equipment.

### *The wrong way to crunch*

Many people complain that crunches cause neck pain. They do — but only if you yank your head and neck instead of lifting your torso by the power of your abdominals. Another mistake is lifting your torso straight off the floor, rather than curling it upwards. How do you know whether you're curling or just lifting? Do the Basic Abdominal Crunch, described in Chapter 12, and freeze at the top of the movement. Your torso should be in a slightly rounded, almost C-shaped position. A third Crunch error: forgetting to breathe. See photo A of Figure 26-1.



## *The right way to crunch*

To avoid jerking your neck, place your hands behind your head, but do *not* lace your fingers together. Hold your elbows out wide, but not too wide. Your arm placement is correct if you can barely see the points of your elbows out of the corners of your eyes. As you curl up, keep your head, neck and arms frozen in position. When you curl the right way, your head, neck and lower back feel nearly weightless. Finally, breathe correctly. As you lift your torso, exhale forcefully through your mouth; as you lower, inhale through your nose. See photo B of Figure 26-1.



A)

**Figure 26-1:**  
As you curl  
up, keep  
your head,  
neck and  
arms frozen  
in position.



B)

## *Squatting Too Far*

The Squat (refer to Chapter 14) strengthens virtually every muscle in your lower body: your butt, front thighs, rear thighs and lower back. The Squat even improves your sense of balance. That's pretty good for a move that essentially mimics getting in and out of a chair. But if you don't do this exercise correctly — and many people don't — you're asking for injury.

## *The wrong way to squat*



We know one guy who would spread his legs practically into the splits and lower his butt all the way to the floor. Then he'd pop back up into a standing position so forcefully that he was close to being airborne. After a few months, this guy began showing up at the gym with bandages wrapped



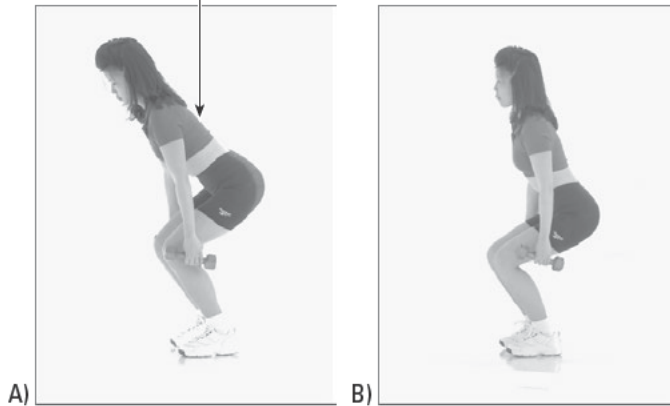
around his knees. Small wonder! Another common error is leaning too far forward, letting your knees shoot out past your toes. Two other problems: dropping your knees inwards or letting them bow to the outside. These mistakes put incredible pressure on the delicate tendons, ligaments and cartilage that hold the knee in place. See photo A of Figure 26-2.

## *The right way to squat*

Start with your feet hip-width apart and point your toes either straight ahead or angled slightly outwards, whichever foot position you find more comfortable. As you squat down, your knees should travel in a straight line, in the direction that your toes are pointed. Never squat so low that your thighs are lower than parallel to the ground. When you stand up, press through your heels, and finish with your legs straight but relaxed. Snapping your knees places pressure on your knees and sends your lower back into an extreme arch. See photo B of Figure 26-2.

Don't lean forward; instead, stand up tall.

**Figure 26-2:**  
Never squat so low that your thighs are lower than parallel to the ground.



## *Arching Your Back*



We recently heard a trainer approach a guy who had just finished bench-pressing and ask, 'Hey, is your name Archie?' 'No,' the guy replied. 'Why do you ask?' 'Because you arched your back so high off the bench that a Mack truck could have driven under it.' Now, if he'd said this to Georgia she probably would have punched him, but he does have a point.

## *The wrong way to bench press*

Some people figure that anything they can do to pile on weight — including arching their back and squirming around — is fair game. In reality, how much weight you can hoist above your chest is not necessarily related to how strong your chest muscles are. When you arch your back, you simply increase your mechanical advantage (and your injury risk); more muscles are pitching in to move that bar upward. We know one guy who was convinced that the arch was an essential part of the Bench Press. We had to produce several anatomy textbooks before we could convince him that we had not fabricated this bit of information. See Figure 26-3.



**Figure 26-3:**  
Arching  
your  
back — a  
big no-no.

## *The right way to bench press*

Keep your back in contact with the bench throughout the exercise. You need not force your back into an unnaturally flat position — it's okay to have a small, natural arch. If you can't plant your feet flat on the floor because the bench is too high, place your feet on the bench.

## *Lowering Your Elbows Too Far*

We hate to pick on chest exercises again, but they're often the victim of multiple mistakes. The mistake we discuss in this section applies to the Dumbbell Chest Press and the Bench Press both described in Chapter 9.

## *The wrong way to lower your arms*

When doing chest exercises, some people drop their elbows so low that they practically touch the floor. The resulting stretch in your chest muscles may feel good, but at this point your muscles are in danger of snapping, like a rubber band that has been pulled too far. Also, when you lower your arms too far, you shove your big arm bone, the humerus, way up into your shoulder socket. The rotator cuff muscles and ligaments and tendons twist themselves in unspeakable ways to accommodate this unnatural position. You may not feel pain immediately, but sooner or later, all of this twisting will probably catch up with you. See photo A of Figure 26-4.

## *The right way to lower your arms*

When you perform the Dumbbell Chest Press or Bench Press, stop when your elbows are slightly below chest level. Depending on the way your body is built, the bar may or may not touch your chest on the Bench Press. See photo B of Figure 26-4.

**Figure 26-4:**  
When you perform chest exercises, stop when your elbows are slightly below chest level.



A)



B)

## *Pulling a Fast One*

Pulling a bar down to your chest isn't as simple as it might appear. To give your back muscles a good workout and to protect yourself from injury, you need to make sure the bar travels in a specific path. Here are tips for performing a perfect Lat Pulldown (described in Chapter 8).

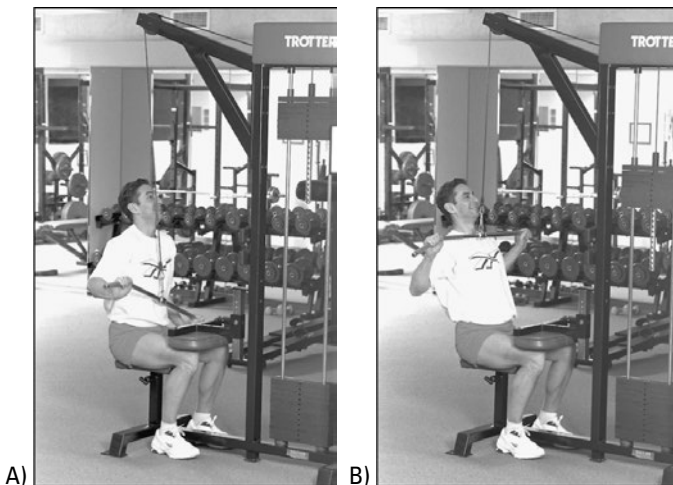
## *The wrong way to pull down a bar*

One common mistake is to pull the bar straight down towards your lap, rather than towards your chest — a mistake that places your shoulder and rotator cuff muscles in jeopardy. A second error is pulling the bar down unevenly; one end of the bar may be a good 15 centimetres lower than the other. But perhaps our biggest pet peeve is leaning waaaaay back as you pull the bar down and then rocking forward as the bar travels upwards. Generating this type of momentum helps you move lots of weight but doesn't improve your back strength. See photo A of Figure 26-5.

## *The right way to pull down a bar*

Choose a weight that's challenging but not so heavy that you feel like you're dangling off the end of a helicopter ladder. Sit down — taking the bar with you — and wedge your thighs under the thigh bar. Then lean just a *few* centimetres backwards. Switch your core on for stability, and pull the bar towards the top of your chest, lifting your chest to meet the bar. Take your time so that the bar remains level throughout the movement. Don't sway back and forth: Rock and roll is dead here. When you've completed your set, stand up and gently deposit the bar back where it belongs. If you open your hands and let the weight plates come crashing down, we will personally hunt you down and give you 40 snaps with a wet towel. See photo B of Figure 26-5.

**Figure 26-5:**  
Don't sway back and forth as you pull down the bar. Rock and roll is dead here.



## *Sticking Your Butt Up*

The Leg Curl, described in Chapter 14, is the most popular hamstring (rear thigh) exercise; unfortunately, performing this exercise incorrectly is also quite popular.

### *The wrong way to use the Leg Curl machine*

Watch people do this exercise and you'll see that as they kick their legs towards their butt, their hips lift off the support pad, and their butt sticks up about 5 centimetres. This is a subtle mistake, but it's a sneaky way of taking work away from your hamstrings and transferring the effort to your hip muscles. See photo A of Figure 26-6.

### *The right way to use the Leg Curl machine*

To prevent your hips from popping off the pad, raise your upper thighs just a hair off the pad before you bend your knees for the kick upwards. In this position, you feel your hamstrings working a lot harder. See photo B of Figure 26-6.



**Figure 26-6:**  
Don't let  
your hips  
pop off the  
support pad.

## *Exaggerating the Row*

If you sit hunched over in a chair most of the day, you're a good candidate for goofing up the Cable Row, described in Chapter 8.

### *The wrong way to row*

One common mistake is to round your back or allow your shoulders and neck to droop forward. This slumped posture puts your neck and lower back in a pressure cooker. Another problem: leaning way back like someone involved in a game of tug of war. See photo A in Figure 26-7.

### *The right way to row*

Sit up tall with your core switched on. Your upper body, from the top of your head to your belly button, should be perpendicular to the floor. Bend your knees as much as you need to in order to maintain good posture. Allow your arms to stretch fully out in front of you without losing that perpendicular posture. Then when you pull the bar towards your chest, sit up even taller and bring your hands into your body, just below your chest. Squeeze your shoulder blades together as you go, and drive your elbows straight back behind you. See photo B in Figure 26-7.



A)

**Figure 26-7:**

Don't lean way back like someone involved in a game of tug of war.



B)

## Carrying a Weight Plate Too Casually

We often listen to exercisers gripe that their backs hurt after they perform the Bench Press. Yet when we go to check out their technique, it looks impeccable. We're baffled — until these people pop off the bench, slide the weight plates off the bar, and put them back on the weight rack. Ah ha! Mystery solved. It's not the Bench Press or any other exercise that's giving them an aching back; it's the way they carry around those big, heavy weight plates. (See Chapter 1 for descriptions of weight plates and weight racks.)

### *The wrong way to carry a weight plate*

Sometimes we see people carrying weight plates around the gym floor as if the plates were super-size Frisbees. Other lifters tuck plates under their arms as if they're clutching a purse. Or, they hold the plate on the edge of their finger tips with a straight arm and locked elbow, as if they're carrying a bowling ball. Carrying around a lot of weight with one hand tied behind your back may be the ultimate display of macho, but this sort of behavior puts your body in a terribly unbalanced position, even if you're a big, strapping fellow. Your elbows and shoulders bear more of the burden than they're designed to handle. See photo A of Figure 26-8.

**Figure 26-8:**  
Always hold weight plates close to your chest with both hands.



A)



B)

## *The right way to carry a weight plate*



Hold the plate close to your chest with both hands. Stand as close as you can to the bar, line up the hole in the plate with the bar, and then slide the plate on. Don't just extend your arms out straight and toss the plate like you're performing some sort of ring-tossing circus act. When you pick up a plate off the floor or from a low rung on a weight tree, bring the weight in close to your chest, and stand up. All this advice goes for light weights, too. See photo B of Figure 26-8.

## *Finishing an Exercise the Wrong Way*



Liz was spotting a woman who was performing a textbook-perfect set of the Dumbbell Chest Press (refer to Chapter 9). The set was truly a thing of beauty — until right after her final repetition. Suddenly she extended her arms straight out, lowered the weights towards the floor, opened her hands and let the weights roll off her palms. She then jerked herself upright and popped up off the bench. Overall, she managed to make about a half dozen mistakes on movements that weren't even part of the actual exercise. Realise that you can't let your guard down until you have safely gotten yourself out of the exercise position.

## *Sitting up the wrong way*

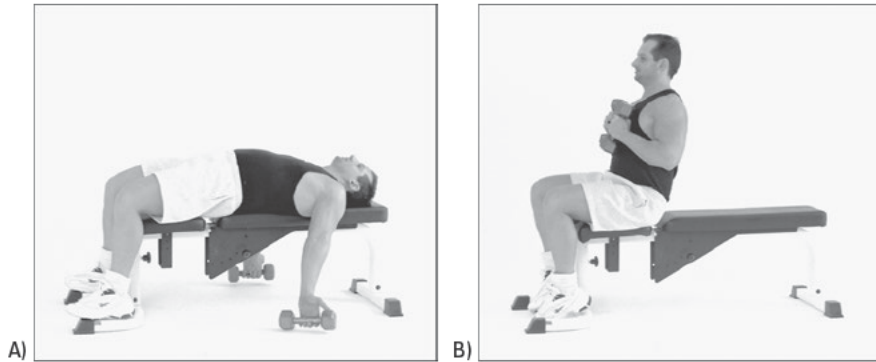
In this book, we show you many exercises that you perform while lying on your back on the floor or on a weight bench. When you sit up after doing these exercises, don't jerk straight back up into a sitting position, especially if you're holding weights. Another no-no: bringing your arms straight out to the sides and dropping the weights, or twisting to either side to drop a weight. See photo A of Figure 26-9.

## *Sitting up the right way*

To protect your lower back when you get up off the floor, roll to the side and then use both arms to push up into a sitting position. Or hug one knee into your chest and gently rock yourself up. After performing an exercise involving dumbbells, such as the Dumbbell Chest Press, bring the weights down into your chest, and then roll up. (When you begin the exercise, do the opposite: Bring the weights into your chest and rock yourself back onto the bench.) See photo B of Figure 26-9.



**Figure 26-9:** After an exercise, don't jerk straight back up into a sitting position, especially if you're holding weights.



## Spotting Too Much — Or Not Enough



Most weight training mistakes you make don't affect anyone but you. However, if you mess up while spotting someone, you may be putting your friend (or ex-friend) at risk for injury. Or, at the very least, you may be depriving your buddy of an enjoyable and effective workout. When acting as a spotter, you need to walk that fine line between not helping enough and getting too involved.

### *The wrong way to spot*

Don't zone out while you're spotting someone. This is not the time to contemplate peacekeeping solutions in the Middle East. If your buddy poops out in the middle of a set and you're even a split second too late to grab the weight, your friend may get clunked on the head, chest, or some other body part. Or your spottee may tear a muscle or ligament while trying to do your job for you (that is, save the weight from crashing). See Figure 26-10.

Some spotters take their job too seriously. They clutch onto the bar and practically perform the exercise *for* their spottees. Too much help is frustrating for the people being spotted; it denies them the glory of completing repetitions on their own.



**Figure 26-10:** When acting as a spotter, walk that fine line between not helping enough and getting too involved.

## *The right way to spot*

Tune out everything in the universe other than your spottee. Put your hands in the right place (refer to Chapter 2 for details) and watch your mate like a soldier guarding the Vatican. Don't wait for your spottee to scream, 'Buddy! Where *are* you?!'

At the same time, don't hover over your charge like a doting grandmother. Give the lifter the freedom to lift the weight under his or her own power. Offer only as much assistance as is necessary.

## Chapter 27

# Ten (Plus Some) Things You Can Do with Latex Rubber (G-Rated)

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### *In This Chapter*

- ▶ Investing in exercise bands: why you should
  - ▶ Using bands safely
  - ▶ Learning ten great band exercises
- 

**W**hen it comes to firming up your muscles, a strip of latex rubber is a lot more useful than you may expect. You're not going to build a Mr Universe-type body by pulling on an exercise band, but you can develop a surprising amount of strength and muscle tone. In this chapter, we first offer tips for using bands safely and then present ten band exercises.

## *Handling Bands on the Run*

Bands are particularly helpful if you want to keep up your strength work when you travel. You can't very well lug around a complete set of chrome dumbbells in your suitcase. (And we hate to imagine how an airport metal detector would react.) Even if you're booked into a hotel that has a gym, we suggest that you take along a band.



Liz recently stayed in a luxury hotel that boasted a state-of-the-art weight room in its brochure. After she arrived, she found a broken-down multi-gym. Luckily, she had a few of her trusty exercise bands tucked in her suitcase.

Make sure that you use a band designed for exercising. Don't just grab anything made of rubber. Strips of old tyre and office rubber bands are not suitable for working out. Besides, exercise bands cost next to nothing — you can purchase a set of three bands for less than \$20 from many sporting goods and department stores.



If you really want to get fancy, you can buy a band with cords or plastic handles attached. The handles make it easier to hold an end in one or both hands, such as when you perform the Band Double Biceps Curl, described later in this chapter. However, the handles aren't practical for exercises (such as the Band Butt Blaster) that require tying your band in a circle. Because bands are so inexpensive, we recommend investing in several. Some are flat and wide; others resemble surgical tubes. In general, the shorter and/or the thicker the band, the harder it is to pull and the more resistance it provides.

## Using an Exercise Band

Experiment with different shapes, sizes and thicknesses to determine which band you like best for each exercise. Have all your bands within reach as you begin your workout so that you don't need to waste time hunting under the couch for the right one.



Here are some tips for working out with bands:

- ✔ Check frequently for holes and tears by holding your band up to a light. If you find even the slightest tear, replace the band immediately.
- ✔ If an exercise calls for you to hold the end in each hand (and your band doesn't have handles), loop the ends *loosely* around the palms of your hands. Leave a little slack so that, as you pull on the band, it doesn't tighten up around your hand and cut off the circulation to your fingers.
- ✔ If an exercise calls for you to stand on the band with your feet together, place both feet on the centre of the band and then step one foot out to the side so that you have about 15 centimetres of band between your feet. This prevents the band from sliding out from under you.
- ✔ Make sure that the band is securely in place before each set. Liz was demonstrating a band exercise to a class when the band slipped off her feet and popped in her face. Ouch! Without missing a beat, she informed the class that this was how *not* to use a band and went on to warn them about the dangers of misusing a band. She would have got away with it, too, if the band hadn't slipped off and popped her in the face again 20 minutes later while she was demonstrating another exercise.
- ✔ Long-term care: If you use the flat bands frequently and on sweaty skin, periodically rinse them in clean water, towel or drip dry, and store in a zip lock bag with a little baby powder. Just shake off the powder before your next use.



## Discovering Ten Excellent Band Exercises

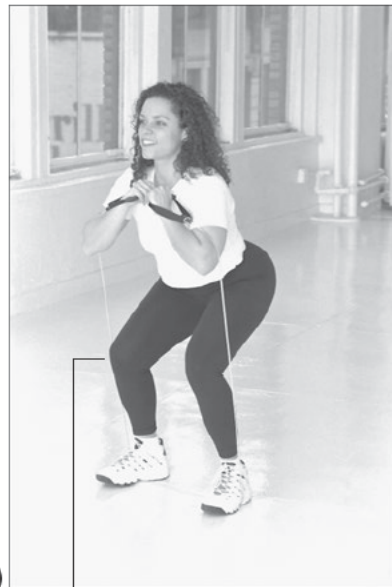
Integrate your favourite band exercises into your regular weight training routine. If you plan to use a band when you travel, practice these exercises beforehand so that you don't waste time trying to figure out what to do. As with all other resistance exercises, do 8 to 15 repetitions per set and do at least one set per muscle group. (We tell you which muscle group each band exercise strengthens.) When you can perform 15 repetitions easily, make the exercise tougher by using a shorter or thicker band.

### Band Squat



The Band Squat is an excellent way to add resistance to the Squat in lieu of free weights. This exercise strengthens your butt, quadriceps and hamstrings. Use caution if you're prone to **lower back**, **hip** or **knee** pain.

**Getting set:** Hold the end of a band in each hand and stand on top of the centre of the band so that your feet are hip-width apart. Clasp your hands together and then raise them in front of your chest so that your elbows point down and the band wraps around behind your elbows. Stand tall with your abdominals pulled in and shoulders square. See photo A of Figure 27-1.



**Figure 27-1:**  
Never go lower than the point at which your thighs are parallel to the floor.

Don't let your knees shoot past your toes.

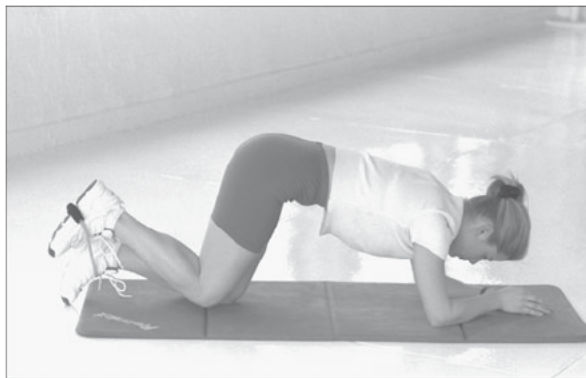
**The exercise:** Sit back and down, as if you're sitting into a chair. Bend your knees and lower yourself as far as you can without leaning your upper body more than about 5 centimetres forward. Never go lower than the point at which your thighs are parallel to the floor, and don't allow your knees to move out in front of your toes. After you feel your upper body fold forward over your thighs, stand back up, pushing through your heels and taking care not to lock your knees. Throughout the exercise, keep your head up and your eyes focused directly in front of you. See photo B of Figure 27-1.

## Band Butt Blaster

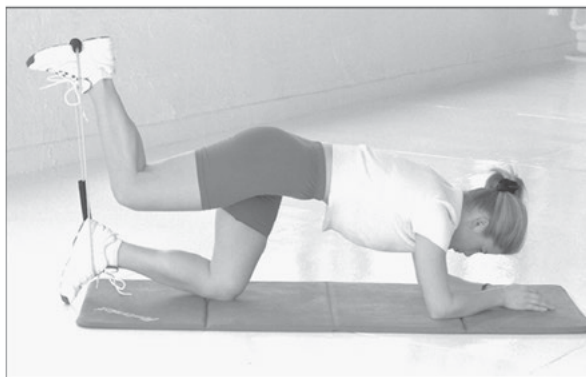


The Band Butt Blaster does a better job of working your butt than many of the butt machines you find in gyms. Use caution if you have **lower back** problems.

**Getting set:** Tie a third of a metre long band in a circle and place it around both feet at the instep. Next, kneel on your elbows and knees. Flex your left foot. Pull your abdominals in. See photo A of Figure 27-2.



A)



B)

**Figure 27-2:**

Your knee should almost but not quite, touch the floor between repetitions.



**The exercise:** Keeping your knee bent, lift your right leg and raise your knee to hip height. Slowly lower your leg back down, taking care not to let the band go slack. Your knee should almost, but not quite, touch the floor between repetitions. Do the same number of repetitions with each leg. See photo B of Figure 27-2.



## *Band Outer Thigh Lift*

The Band Outer Thigh Lift is a challenging outer thigh exercise. Make sure that you keep your abdominals pulled in to protect your **lower back**.

**Getting set:** Tie an exercise band (30 to 60 centimetres long) in a circle. Lie on the floor on your left side with your legs a few centimetres in front of you, knees slightly bent, and head resting on your outstretched arm. Place the band around your thighs, just above your knees. Bend your right arm and place your palm on the floor in front of your chest for support. Align your right hip directly over your left hip and pull your abdominals in so that your back isn't arched. See photo A of Figure 27-3.



A)



B)

**Figure 27-3:**  
Pull your abdominals in so that your back isn't arched.

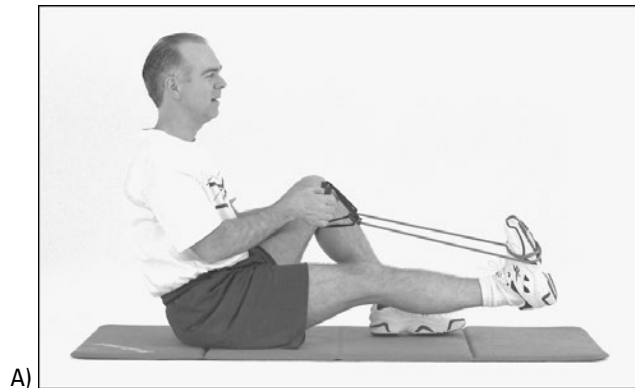
Wrap the band above your knee.

**The exercise:** Keeping your knee slightly bent, raise your right leg until your foot reaches shoulder height. Hold the position for a moment, and then slowly lower your leg back down, keeping tension on the band the entire time. Switch sides, and do the same number of repetitions with your left leg. See photo B of Figure 27-3.

## *Band Calf Press*

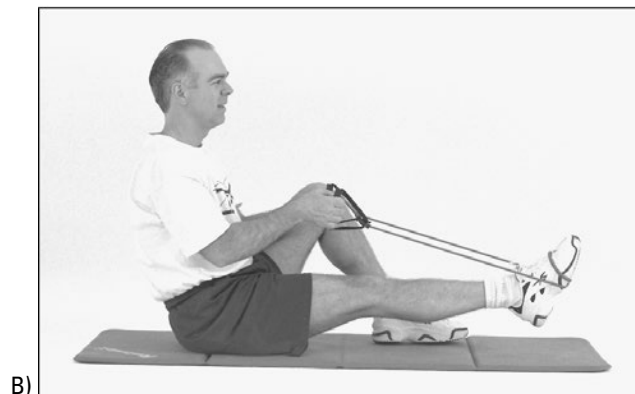
The Band Calf Press targets your calf muscles. As a bonus, it also strengthens your shins, upper back, and biceps, especially if you keep tension on the band as your toes move both toward you and away from you.

**Getting set:** Holding one end of a flat band in each hand at waist level, sit on the floor with your legs straight out in front of you and wrap the band around the ball of your right foot. Bend your right knee slightly and lift it up in the air. Sit up straight and bend your left knee if you want to. Just don't round your back. See photo A of Figure 27-4.



**Figure 27-4:**

While maintaining your pull on the band, flatten your foot and pull your toes back as far as you can.





**The exercise:** Point your toe as you pull back on the band. Hold this position a moment and, while maintaining your pull on the band, flatten your foot and pull your toes back as far as you can. Complete the set and then do the exercise with your left foot. See photo B of Figure 27-4.

## Band Lat Pulldown



The Band Lat Pulldown mimics the Lat Pulldown you do on a machine. Like the machine version, the Band Lat Pulldown works your upper back muscles with some emphasis on your shoulders and biceps. Be especially careful with form if you're prone to **neck** or **shoulder** discomfort.

**Getting set:** Sit in a chair or stand with your feet hip-width apart and hold an end of the exercise band in each hand. Raise your arms over your head with your left palm facing in and your right palm facing forward just above shoulder level. Your elbows should be slightly bent. Stand tall with your abdominals pulled in and your knees relaxed. See photo A of Figure 27-5.

**The exercise:** Keep your left arm still. Bend your right elbow down and out to the side, as if you're shooting an arrow straight up into the air. Keeping your wrist straight, pull the band until your right hand is to the side of your right shoulder, the band is tight, and your right elbow points down. Slowly straighten your arm. Switch sides, alternating arms as you complete the set. See photo B of Figure 27-5.

Keep your wrist straight.

**Figure 27-5:** With your left arm still, bend your right elbow down and out to the side, as if you're shooting an arrow straight up into the air.



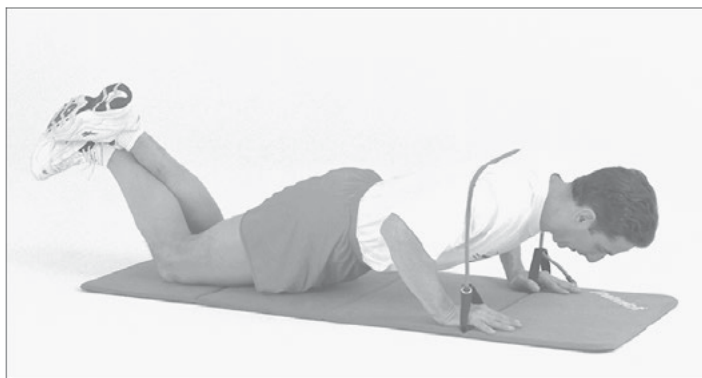
## Band Push-up



The Band Push-up is a unique way to make the Push-up more challenging. This exercise strengthens your chest, shoulders, triceps and abdominals. If you have **lower back**, **neck** or **elbow** problems, you may want to skip this Push-up variation.

**Getting set:** For this exercise, use a band that's at least about a metre long. Wrap the band around your back and over your shoulder blades, and hold an end in each hand. Lie face down on the floor with your elbows bent and your palms on the floor in front of your shoulders. Bend your knees and cross your ankles. Tilt your forehead towards the floor and pull your abdominals in so your back doesn't sag. See photo A of Figure 27-6.

**The exercise:** Straighten your arms and press your body up. (Adjust the band so it's taut when your arms are straight.) Slowly bend your elbows and lower yourself down until your elbows are just above your shoulders. Your chest may or may not touch the floor, depending on the length of your arms and the size of your chest. See photo B of Figure 27-6.



A)



B)

**Figure 27-6:**

Lower yourself down until your elbows are just above your shoulders. Whether your chest touches the floor depends on your arm length and chest size.

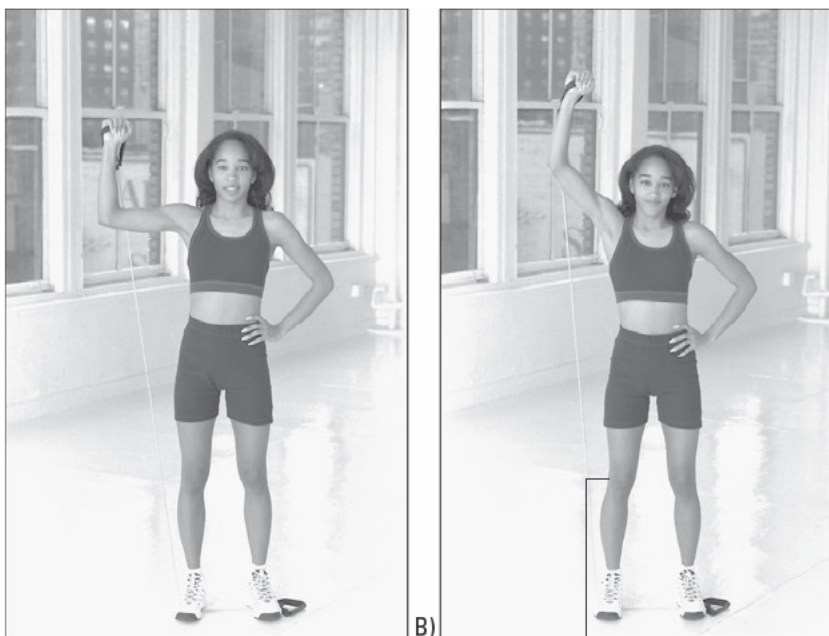
## Band One-arm Shoulder Press



The Band One-arm Shoulder Press strengthens your entire shoulder muscle, with additional emphasis on your triceps. Pay special attention to your form if you have a history of **lower back** or **neck** problems.

**Getting set:** Stand on top of one end of the band near the handle so that your feet are hip-width apart. Hold the other handle in your right hand and place your left hand on your hip. Raise your right arm to shoulder height so that your elbow is bent, your upper arm is parallel to the floor, and your palm is facing forward. Keep your head centred between your shoulders, pull your abdominals in, and relax your knees. See photo A of Figure 27-7.

**The exercise:** Straighten your arm overhead and then slowly bend your arm until your elbow is slightly below shoulder height, but no lower. After you've completed a set with your right arm, do an equal number of reps with your left. See photo B of Figure 27-7.



**Figure 27-7:**  
Bend your arm until your elbow is slightly below shoulder height but no lower.

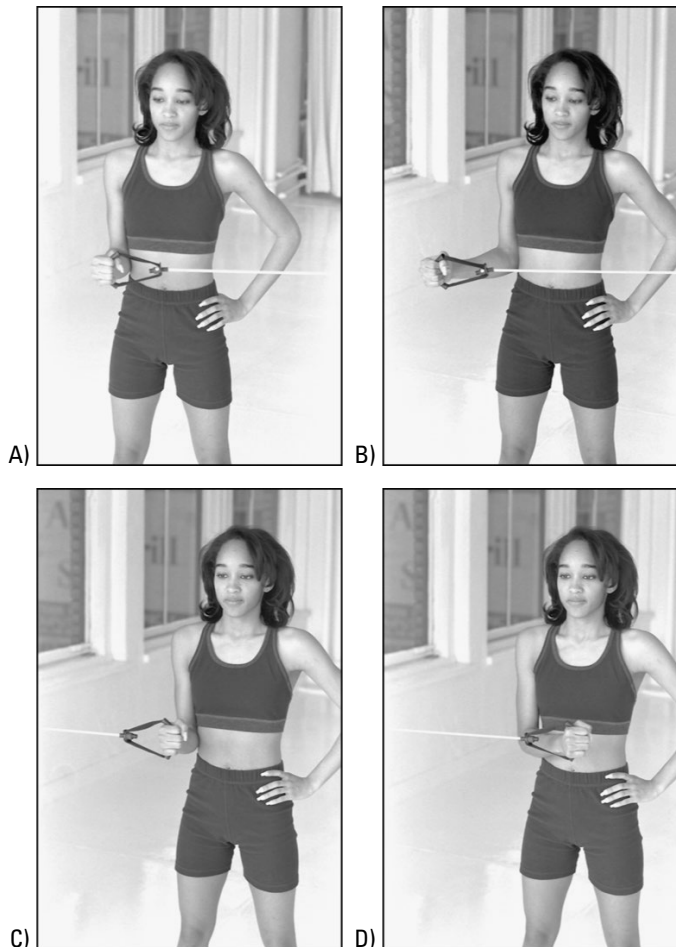
Keep your knees relaxed.

## *Band External and Internal Rotation*

The Band Internal and External Rotation is very effective at strengthening the rotator cuff muscles.

**External Rotation, getting set:** Tie a band around a stable object. Hold one end of the band in your hand with your palm facing in. Bend your elbow 90 degrees. See photo A in Figure 27-8.

**External Rotation, the exercise:** Keeping your elbow in place, move your hand a few inches away from you to increase tension in the band and then slowly move it back to the starting position. See photo B in Figure 27-8.



**Figure 27-8:**  
Keep your  
elbow  
in place  
during both  
of these  
exercises.

**Internal Rotation, getting set:** Turn around so that the stable object is on your other side. Hold your arm as in the External Rotation towards you to create more tension. See photo C in Figure 27-8.

**Internal Rotation, the exercise:** Pull your arm towards you to create more tension. Move your arm out again. See photo D in Figure 27-8.



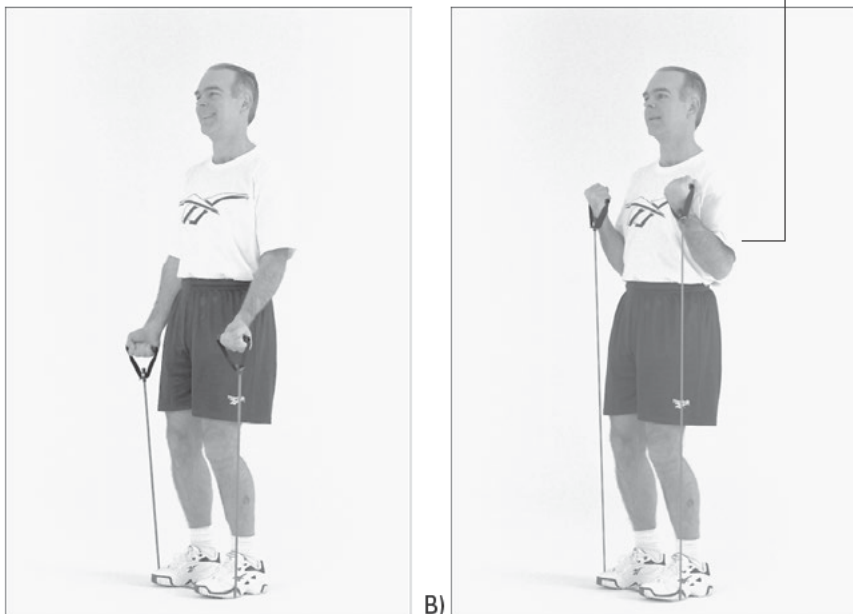
## Band Double Bicep Curl

The Band Double Bicep Curl, an excellent imitation of the Barbell Bicep Curl, targets your biceps. Use caution if you're prone to **elbow** injuries.

**Getting set:** With an end of the band in each hand and palms facing up, stand on top of the centre of your exercise band so that your feet are hip-width apart. Straighten your arms down at your sides. Stand tall with your abdominals pulled in and your knees relaxed. See photo A of Figure 27-9.

**The exercise:** Bend your elbows and curl both arms up until your hands are in front of your shoulders. Don't permit your elbows to travel forward as you curl. The band should be taut at the top of the movement. Slowly straighten your arms. See photo B of Figure 27-9.

Don't lean back as you curl your arms.



**Figure 27-9:**  
Don't let your elbows travel forward as you curl.

A)

B)

## Band Triceps Extension



As you might guess, the Band Triceps Extension strengthens your triceps muscle. Go easy on this one if you experience **elbow** or **shoulder** discomfort.

**Getting set:** While holding onto one end of the band with your left hand, stand with your feet as wide as your hips and place your left palm over the front of your right shoulder. Hold the other end of the band in your right hand with your palm facing inwards. Bend your right elbow so that it's at waist level and pointing behind you. You can lean slightly forward from your hips if you find that position comfortable, but always keep your abdominals in and your knees relaxed. See photo A of Figure 27-10.

**The exercise:** Keeping your elbow stationary, straighten your right arm out behind you so that the band gets tighter as you go, but don't allow your elbow to lock. Then bend your elbow so that your hand travels back to your waist. Reposition the band to work your left triceps. See photo B of Figure 27-10.

**Figure 27-10:**  
Keeping your elbow stationary, straighten your right arm out behind you so that the band gets tighter as you go.



A)



B)



## Chapter 28

# Ten Weight Training Deals and Duds

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### *In This Chapter*

- ▶ Taking a look at weight training accessories
  - ▶ Recognising weight training rip-offs
- 

Suppose that a used car salesman walked up to you wearing a leisure suit, gold chains and a pinky ring and said, 'I've got a '92 Mercedes in mint condition for \$999 — it's a steal. It's a deal!' Would you whip out your cheque book? We think not. And yet many thousands of Australians and New Zealanders open their wallets right up when infomercial personalities and magazine ads make equally dubious offers for muscle-toning gadgets. All the same warning signs may be there — the outlandish claims, the cheesy outfits, the smarmy smiles — and yet for many people, wishful thinking seems to overcome good judgment.

Fortunately, not every weight training product is less reliable than your average psychic hotline. In fact, a number of them are quite clever and useful. The good gadgets can make your workouts safer and more fun and help you get better results. In this chapter, we describe some of the best and worst of weight training products and services.

## *Five Great Weight Training Investments*

Throughout this book we mention some of our favourite weight training bargains — DVDs, health club memberships and fitness magazine subscriptions, to name a few. We've chosen to highlight the following investments because they bring an exceptional return on your money.

## *An adjustable weight bench*

Although you can perform dozens of exercises with dumbbells alone, a weight bench gives you far more versatility. With a flat weight bench, you can perform exercises while sitting, kneeling or lying on your back. An adjustable weight bench is an even better option, allowing you to work your muscles from even more angles. An adjustable bench is like a padded chair with a seat back that you can slide down so that you're leaning back or even lying all the way flat on your back. Some adjustable benches, like those made by Tuff Stuff, also adjust to a decline position so that you're lying with your head below your feet. The decline feature isn't as important as the incline; if you opt for a bench that doesn't decline, don't lose too much sleep over it.

Some benches come with stanchions (either fixed or detachable) to hold a barbell. If you have a choice, go with detachable stanchions; otherwise, make sure that the upright bars don't impede your motion when you perform dumbbell exercises. Refer to Chapter 4 for more tips on buying a weight bench.

## *Hand protection*

Weight training does nice things to your muscles but isn't particularly kind to the skin on your palms. Callouses and blisters are common among people who lift weights regularly. This section is about using gloves to prevent these annoying problems:

You've probably seen people in the gym wearing *weight lifting gloves* with padded palms and the finger tips cut off. Not only do these gloves protect the skin on your palms, but they also give you a firmer grip on the dumbbells, bars and handles. If you plan to do more than a quickie machine workout, we recommend investing in a pair.



By the way, *bicycling gloves*, which also have the fingertips cut off, aren't a good substitute because they have too much padding. Also, the fingers are shorter than those on most weight training gloves, so the fabric tends to dig into the palm side of your knuckles when you grab onto a weight.

Some hard-core weight lifters wear *gardening gloves* instead of those designed for weight training. Although these gloves make you look like a telephone repair person, they cost around three bucks and can adequately protect your hands. However, if you don't cut off the fingertips, your hands may feel too hot.



## *A personal trainer*

We know people who have been performing the Bench Press incorrectly for 20 years because they didn't learn to do it properly in the first place. Some of these people have suffered injuries related to their sloppy technique. But if you dare suggest that they alter their form, they respond with an indignant 'I know what I'm doing — I've been lifting weights for 20 years.'



To make sure that you develop good weight lifting habits, we suggest that you begin your weight training career with at least three personal training sessions. Expect to pay \$60 to \$100 per session. A qualified and gifted trainer can get you over the learning curve in a hurry and, in just a few sessions, teach you technique tips that last a lifetime. You may want to check in with the trainer three or four times a year for a technique tune-up and creative ideas for updating your routine. Read Chapter 5 for tips on finding a qualified trainer.

## *Exercise bands*

As much as we love dumbbells and a free weight bench, they're kind of heavy to lug with you to the train station or the airport. Exercise bands fits easily into your carry-on bag or your desk drawer at work and give you a better strength workout than you might imagine. You can buy a decent set of bands for under \$20; the wide flat bands are sold at sporting goods and exercise equipment specialty stores for dollars a metre. Even if you go the super-deluxe route, you'd be hard pressed to spend more than \$100.

If bands are to be your primary weight training equipment or you use them frequently when you travel or can't get to the gym, we recommend buying a set with several attachments. Look for a kit with a hook that fastens over a doorknob, under the doorway, or in the edge of the doorway. This attachment increases your exercise options tenfold. You can mimic many of the exercises performed on a cable crossover machine because you can attach one end up very high or very low. For more tips on purchasing bands, flip to Chapter 4. In Chapter 27, we show you an entire exercise band workout.

## *A weight training diary*

How much has your Bench Press increased over the last three months? Are you giving your hamstrings and your quadriceps equal time on the weight machines? Can you squat more weight when you warm up with two sets or three?

If you have to search your brain for these answers, your weight training routine probably isn't as effective as it could be. Tracking the details of your workouts provides you with valuable information and feedback.

A training diary keeps you honest. You may brag to your coffee shop buddies that you lift four times a week, but if your diary says otherwise, you know it's time to stop talking and get to the gym. A diary keeps you motivated, too, because you can flip back through the pages and see your improvements. If you reach your goals successfully, you've got a written step-by-step guide outlining how you got there. If you're stuck in a rut, you usually can find the problem with a careful read of your log. For tips about what to write down in your diary, refer to Chapter 3.

You can use a plain notepad to record your weight training workouts, but since workout diaries cost less than \$30, why not treat yourself to a diary specifically designed for lifting? You can find these logs at the bookstore. Our personal favourite is *The Weight Training Diary For Dummies* (Wiley Publishing).

If your computer keyboard has become an extension of your hands, you can record your lifting sessions online. Many online training diaries are free or extremely cheap. Online and electronic diaries are generally excellent and can analyse your workout data in countless ways. However, they're hard to carry around. We personally like to take our diaries with us so we can jot notes after each exercise. That way, you're not struggling to remember everything when you get back to your computer. If you're feeling really ambitious, you can carry around a paper diary and take a few moments to transfer the information into an electronic medium.

## *Five Weight Training Rip-offs*

We know of so many bogus weight training products that we had a hard time whittling our list to five. We chose the following items either for their outrageously misleading ads or for their potential to hurt you.

### *Electrical stimulation devices*

'You quickly shape up doing nothing at all!' That's the pitch for a \$99 electrical muscle stimulation belt that looks like an accessory that might have been popular in discos in the seventies. According to the ad, the belt sends electrical impulses to your muscles, causing them to expand and contract repetitively, as they would in a normal workout. 'No sit-ups,' the ad says, 'No sweat.'

Electrical stimulation devices have legitimate uses, but building muscles are not among them. (Physical therapists use these gizmos to help relax muscle spasms in the back and neck.) This gadget does stimulate your muscles to contract, but it won't give you a better body. In order for your muscles to become stronger and firmer, they must both contract *and* work to overcome a force such as gravity, a weight or a rubber band.



Electrical stimulation devices aren't just a waste of money; they're also potentially dangerous. Not long ago, Liz's friend Norman bought one of these gizmos after undergoing knee surgery. A doctor that he knew (not the doc who operated on him) told Norman that the stimulation would help him regain strength in his knee. Norman was afraid of this thing, so he asked Liz to try it first. She placed the electrodes along the side of her knee and cranked up the dial to the 'maximum voltage' setting. Her thigh jumped like the frog's leg that she had experimented on in Year 10 biology. She ripped off the pad, but not in time to stop the formation of two deep red splotches on her thigh. Liz later learned that the doctor who had sold Norman the stimulator was a scam artist. He was selling these gadgets to his patients for \$40 and then charging their insurance company more than \$300 for physical therapy.



Electrical stimulation devices are becoming so popular that the American Council on Exercise recently commissioned the University of Wisconsin to test a model sold on infomercials. This model is vitually indistinguishable from one sold in both Australia and New Zealand. After eight weeks, the subjects who underwent electrical stimulation three times a week experienced no changes in weight, body fat percentage or strength. What's more, using the gizmo was painful and time-consuming; each session took about 45 minutes, even after weeks of practice. (Hmmm, about the same amount of time it would have taken to do a workout.) Also, the model used in this study cost more than \$1,000. (Hmmm, more than most yearly gym memberships.)

## Weight belts

According to the conventional gym wisdom, wearing a weight belt is a smart way to protect your back when you're hoisting dumbbells and barbells. But research has proven otherwise. In fact, wearing a belt may actually increase your risk of injury.

When you wear a belt, your lower back and abdominal muscles don't have to work as hard to support your body. As a result, they never develop the strength necessary to assist you with heavier lifts. You may end up with muscular imbalances that set you up for injuries when you're not wearing

a belt. Let's say you have powerful legs and go to kick a soccer ball; if your abs and back are not strong enough to support your body during this forceful kick, that loud ripping sound you'll hear is the sound of your back muscles pulling. Dozens of studies show that people who wear belts have weaker abs and lower back muscles than those who don't.

A strong argument can also be made for going beltless when you already have a lower back injury. You're better off lifting only as much weight as your back can tolerate without artificial help. The belt may allow you to lift past your safety point without feeling pain — until it's too late. Plus, you're better off taking the time to properly rehabilitate your injury before you start seriously hitting the weights again.

## *High-rep classes*

These days, more and more health clubs are offering choreographed strength training classes that are set to music and involve performing dozens and dozens of repetitions with very light weights. Unfortunately, as we explain in Chapter 5, lifting very light weights over and over will not give you strength — you'll just get tired muscles. Plus, performing dozens of repetitions may be unsafe, especially for the delicate elbow and shoulder joints.

If your gym offers classes that only make use of very light weights (think one or two sets of 2 and 5 kilogram weights), we'd recommend skipping them. Instead, spend 20 minutes with a set of dumbbells and a weight bench performing routines that we describe in Chapters 16 and 17. Or, if you prefer a class setting, find a Body Sculpting or Body Pump instructor who follows the sensible guidelines that we outline in those chapters.

## *Ab gizmos*



We were hoping that when the Ab Roller industry crashed and burned, we had seen the last of abdominal infomercial gadgets that claim to help you 'go from flab to abs' and 'whittle your middle'. We were wrong! The Australian and New Zealand public seems to be obsessed with using gadgets to trim their tummies. Reality: You cannot exercise a specific spot on your body and then expect the flab to disappear from that spot any more than you can expect to get smarter by massaging your head.

But for Australasian consumers, it seems, hope springs eternal. The latest entrepreneur to take advantage of this hope is Jennifer Nicole Lee, a fitness 'expert' who just happens to also be genetically blessed with the body of a model who devotes 90 per cent of her waking hours to being at the gym.

She endorses a product called the Ab Circle Pro, which has spawned a slew of imitators. Essentially, this contraption is a long track of metal with handles on one end and a pad at the other. You kneel on the pad, grasp the handles, and slide your legs from side to side.

Lee implies that this motion will melt fat away from your body faster than you can say ‘More money in Jennifer Nicole Lee’s pocket’. In fact, this machine has the potential to wreck your back, especially if you are overweight. In our opinion, this \$300 gadget is a waste of money. You can do dozens and dozens of more effective abdominal and core exercises, such as the ones we describe in Chapters 12, 13 and 19.

## *Terrible trainers*

Earlier in this chapter, we mention that a personal trainer is one of the best fitness investments you can make. Absolutely true. However, there are a few bad apples out there, and you should know how to spot them. You cannot trust that every health club screens its trainers for knowledge and experience.



In a recent issue of *Women’s Sports & Fitness* magazine, a writer showed how easy it is for an unqualified trainer to get hired. The writer ‘earned’ a cheap certification off the internet by answering questions such as, ‘Does a Biceps Curl work the triceps, deltoid or biceps muscle?’ A few days later her certification card arrived, ‘licensing’ her to teach kickboxing as well, even though she had never even taken a kickboxing class! The writer then applied for a job at eight health clubs. It’s a good sign that six of them turned her down. It’s pretty scary that one of them offered her a job on the spot, and the other was eager to consider her application.

If you inadvertently hire a lousy trainer, don’t be shy about letting the person go. In Chapter 5, we discuss trainers in detail. But, briefly, you need to say sayonara to your trainer if the trainer . . .

- ✔ **Doesn’t have reputable credentials.** Just because someone claims to be a ‘trainer to the stars’ or a ‘nationally recognised personal trainer’ doesn’t mean that the person has any education or teaching skills. Refer to Chapter 5 for a list of legitimate credentials.
- ✔ **Fails to custom-design a program for you.** We know one trainer who has all his clients — whether they’re 25-year-old triathletes or 60-year-old novices — hop up and down off benches and squat so low that their butts touch the floor. His name has been mentioned more than once in operating rooms where knee surgery is a specialty.
- ✔ **Forces you to perform a movement that feels uncomfortable or painful.** For every exercise a trainer suggests, the trainer should know several alternative exercises that work the same muscles.

- ✔ **Doesn't teach you to be independent.** If you want to work out with a trainer three times a week for the rest of your life, great. But don't think that you should *need* a trainer forever. Three to five sessions should get you up and running.
- ✔ **Fails to monitor your technique.** We know a trainer who spends most of a session gazing at himself in the mirror instead of watching his client. One time he leaned backwards just as his client was straightening his arms on a triceps machine, and the trainer got clanked in the head.
- ✔ **Steps outside the boundaries of your professional relationship.** If this happens, terminate your session immediately and find another trainer. If the trainer is part of the gym staff, file a complaint with the management. If the trainer is an independent trainer, file a report with any organisation that the person is certified by so that the organisation won't recommend the trainer to anyone else.



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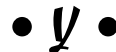
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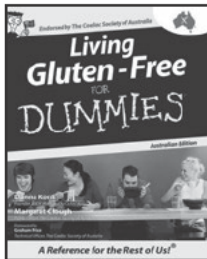




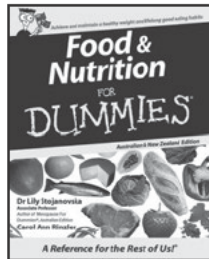


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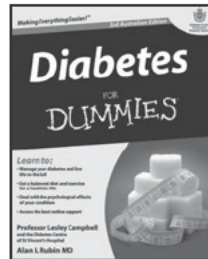
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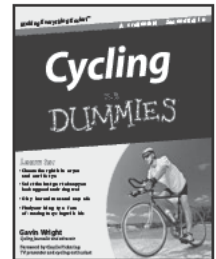
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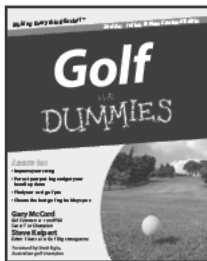
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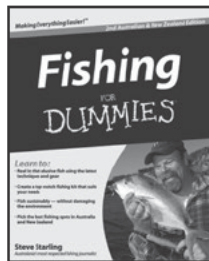
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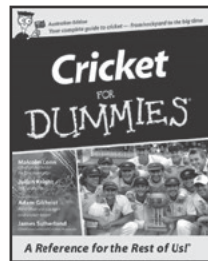
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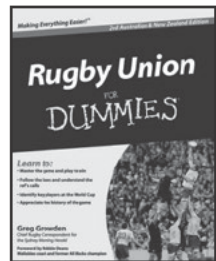
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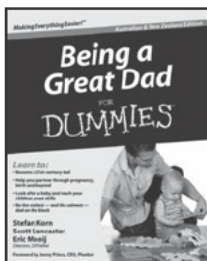
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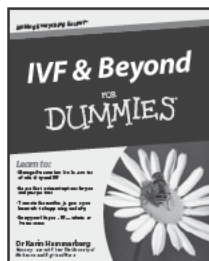
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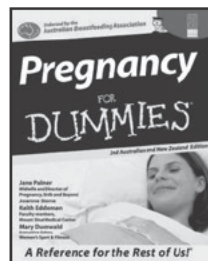
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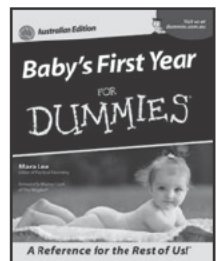
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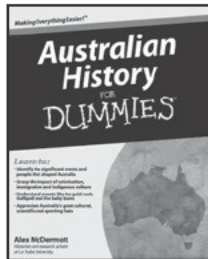


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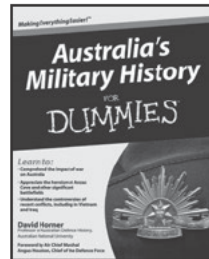
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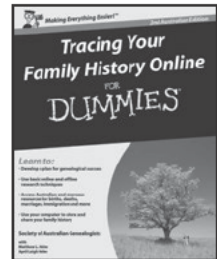
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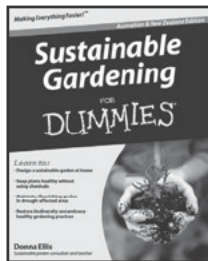
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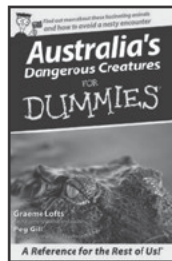
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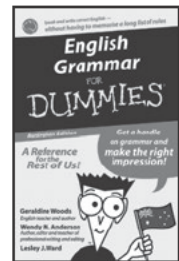
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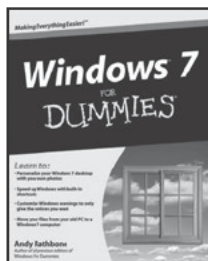


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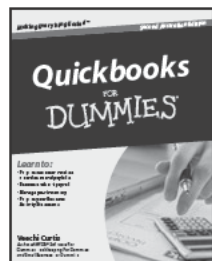


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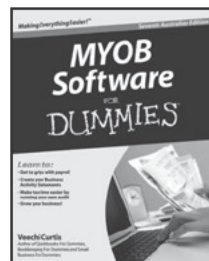
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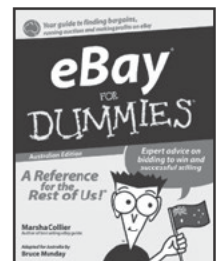
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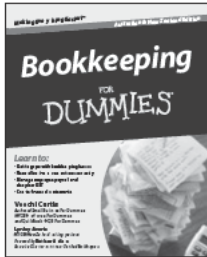


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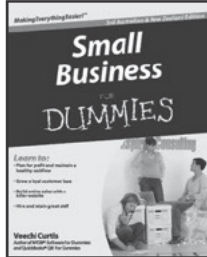


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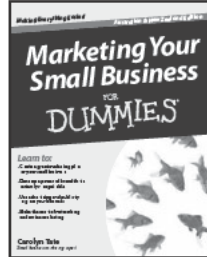
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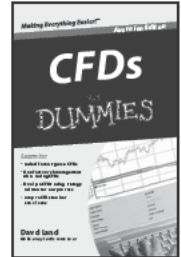
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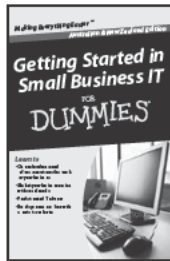
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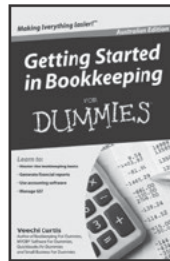
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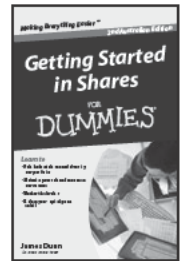
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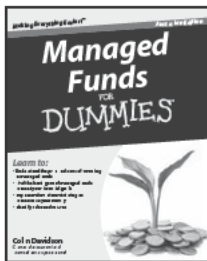
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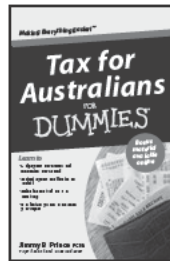
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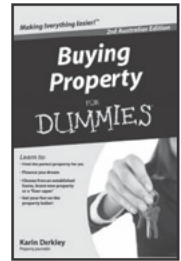
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