

Get Moving

Researchers debate how much exercise is enough

by Stephanie J. Arthur, *staff writer*



in this country are getting already.” Pate emphasizes that “what we need to communicate is that there’s more than one way to skin a cat here.” The report merely spells out the minimum requirement for beneficial physical activity. Neophyte exercisers don’t have to run marathons to be fit, but marathon runners needn’t cut back to brisk walking, either.

The value of accumulated exercise is controversial among researchers. Manson, who advises her patients to exercise “at least 30 minutes per day and no less than 15 minutes per session,” believes that accumulated activity is likely enough to

burn calories and thus lead to weight loss but that sustained exercise is necessary to benefit the heart and lungs.

Pate takes a slightly different approach, asserting that current studies show that smaller “packages” of activity do provide cardiovascular advantages. This approach may be beneficial in other ways as well. For example, the body’s metabolism remains high for some time after exercising, so by repeatedly working out, even for short periods, you reap the physiological rewards, such as burning calories, more often throughout the day.

Pate looks at the issue from an evolutionary standpoint. “Our predecessors didn’t run intervals or jog for half an hour. What they did was follow animals around; they were hunters and gatherers, and that’s the way our bodies evolved. And what is hunting and gathering? It’s accumulating moderate-intensity physical activity throughout the day.” Some researchers disagree with this analysis, but until more conclusive studies come forth, Pate urges people “to at least stay open-minded.”

As a strong proponent of sustained exercise, Paul T. Williams of Lawrence Berkeley National Laboratory argues that the advantage of accumulated exercise is “currently an unproved hypothesis.” Williams’s studies on female runners have revealed that health benefits increased the longer the women exercised. For instance, the women who ran 64 kilometers (40 miles) per week had on average 10 percent higher concentrations of HDL than women who ran 24 kilometers (15 miles). One important implication of this study: even if you’re already active and in good physical condition, more exercise can be good for you.

But Manson fears that Williams’s doctrine of extended exercise is “not realistic or necessarily safe” for all women. She concedes that Williams’s data are valid, but she also worries about certain health risks—such as recurring musculoskeletal injuries, cessation of menstrual cycles and even infertility caused by altered levels of estrogen—that are more likely to occur as women increase the length and vigor of their exercise sessions.

Debates aside, experts do agree that a sedentary lifestyle is tremendously unhealthy, often leading to a variety of chronic diseases and even premature death. Studies have shown that exercise lowers your risk for heart disease; Manson adds that “there’s also strong evidence that it may lower risk of certain cancers, particularly breast and colorectal cancers, which are the second and third leading causes of cancer death for women.”

So will the new CDC-ACSM recommendation finally get more people moving? Pate comments that it’s too soon to tell, but he and his colleagues will be watching closely over the next several years. As the value of exercise becomes only more and more apparent with each new study, it’s no wonder experts keep encouraging people to be more active. After all, done wisely, exercise is, as Manson says, a “win-win situation.” **SA**

Ever find yourself making that resolution to get into shape and then an hour later trading in that trip to the gym for the more appealing prospect of curling up on the sofa with a good book or the remote control? You’re not alone. Despite decades of encouragement to exercise for health, 60 percent of Americans are not regularly active, and 25 percent are not active at all, according to a 1996 report from the U.S. surgeon general. In today’s fast-paced world, many people feel they don’t have enough time to exercise, particularly when it’s hard to figure out how much exercise is really enough.

One of the major prescriptions for how much people should be exercising was developed in the mid-1970s by the American College of Sports Medicine (ACSM). The ACSM proposed that 20 to 30 minutes of continuous, vigorous activity, such as running—keeping your heart rate at 60 to 80 percent of its maximal level—at least three days a week would help individuals garner substantial health benefits. (To calculate your maximal heart rate, use the formula $200 - \text{age} = \text{maximum beats per minute}$.) Most people, however, found the intense level of activity too strenuous or the amount of time too difficult to fit into their busy schedules, so the guideline had little influence.

To amend this problem, the Centers for Disease Control and Prevention (CDC) teamed up with the ACSM to create a recommendation that would be less intimidating but would still promote health and fitness. The guideline, published in 1995, recommends a total of 30 minutes of moderate exercise—for instance, brisk walking at 40 to 60 percent of your maximal heart rate, rather than running—at least five days of the week. One important aspect of the new guideline is the concept that you can accumulate exercise points throughout the day, working out for short periods—three 10-minute sessions, for example—as long as the combined time is at least 30 minutes.

JoAnn E. Manson of Harvard Medical School has studied the effects of exercise on women and explains the advantages of such activity: “There is good evidence that even moderate-intensity exercise—such as brisk walking—will lower your blood pressure, improve your lipid profile by increasing the levels of protective HDL [high-density lipoprotein, the good cholesterol], improve insulin sensitivity, lower blood sugar levels, lower risk of cardiovascular disease and osteoporosis, and it may also have benefits in terms of reducing stress.”

Russell R. Pate of the University of South Carolina, a co-author of the CDC-ACSM report, says that although he and his colleagues did ease the exercise burden, “it’s [still] a reasonable amount of activity—and a good deal more than most adults

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