## Vegan Vegan Starter Pack

Beyond not buying the products for which animals are raised and slaughtered, each individual has different opinions about being vegan. Everyone takes their own path.

Once you make the decision to oppose factory farms and industrial slaughterhouses, you will face a number of questions. There are two particularly difficult questions that you'll need to ask yourself:

1. What exactly is a "vegan"?
2. How should I deal with other people who aren't vegan?

## The Impossible Quest for Purity

When you first discover the reality of modern animal agriculture, you might feel compelled to try to root out every single product associated with animal suffering. Unfortunately, personal purity is impossible.

All around us are items connected in some way to animal exploitation: organic foods (animal manure used as fertilizer), cotton (animal products in the bleaching process), bicycles (animal fat used in the vulcanization of tires), books (hooves and bones in binding glue), roads and buildings (animal products used in curing concrete), water (tested with animal products, often filtered through bone char), etc. Even many vegan foods result in killing some animals during planting and harvesting.

## Vegan Outreach's View:

A Results-Based Approach
We believe that framing veganism as the avoidance of a specific list of "bad" ingredients is not the best way to achieve results. When looked at closely, any ingredients-based definition of vegan collapses into inconsistencies. This is why we stress that the essence of being vegan is working to end cruelty to animals.

Working to end cruelty to animals is a clear motivation that can be easily comprehended by others. When discussing veganism, we admit there are not always clear-cut answers and explain that it's not a matter of making the "right" or "wrong" choice in every situation. This practical, goaloriented approach shows that being vegan is an active, progressive means by which we make the world a better place.

Although all views of vegan include withdrawing support from factory farms and slaughterhouses, there are many instances where a resultsbased approach can help animals more than an ingredients-based approach. For example, a consistent vegan dedicated to an ingredients-based view of veganism wouldn't use film (which contains gelatin) under any circumstances. Yet how much animal suffering has been alleviated because of

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the visual impact of the pictures and films that have documented so many abuses?

## Not Just What We Avoid

Some would argue that vegans should replace their current cameras with digital ones. However, we have to ask if spending money replacing a functional object with a new one is the best way to oppose cruelty to animals. (This is also an issue with leather and wool goods we had purchased before becoming vegan.) Might the extra money be better spent creating resources to spread vegetarianism, such as printing literature?

We believe that being vegan isn't simply avoiding a list of products. We seek to maximize the good we accomplish with our decisions. As vegans, what we do is as important as what we don't do.

Some vegans and non-vegans alike are quick to call others "hypocrites" if they don't avoid a certain hidden ingredient. But if your goal is to alleviate suffering, it isn't hypocritical to accept that avoiding all hidden ingredients can be prohibitively expensive, time-consuming, and make veganism appear impossible to others. It is also worth noting that animal by-products will disappear as the meat, dairy, and egg industries fade. Therefore, our time and energy are most likely better spent focused on spreading vegetarianism than on shunning minor ingredients.


An expanded version of this brochure is available at veganoutreach.org/vsp

Suppose the current 5,000+ members of Vegan Outreach influence one person to become vegan every five years on average, and these new vegans, in turn, also influence one new person every five years. Although the change will be imperceptible at first, by the middle of the century, more than ten percent of the U.S. population will have become vegan, and far more suffering will have been prevented than had we abolished every other form of animal exploitation in the country. As more people stop eating animals, there will be many more vegan options for everyone (e.g., vegan burgers will be cheaper and more readily available), making it much easier for others to change. At this pace, it will only take a few more decades for the entire U.S. population to be vegan.

Dealing with Others
Choosing to stop eating animals implicitly communicates to family, friends, and colleagues that their continued eating of animals is wrong. When vegans share their new ideas, some family and friends not only show resistance, but can even react with mockery or anger. Combine this with the fact that vegans naturally view meat eaters as supporting cruelty and causing suffering, and it is not surprising that some vegans can develop a near hatred of them.

In order to prevent and alleviate suffering, however, we must let the compassion we feel for animals shine through the pain and anger we feel about their exploitation. Unless non-vegans can respect us-as opposed to finding us cold and judgmental-they will have little interest in veganism.

Instead of expecting others to go vegan immediately, we need to offer understanding and give them time to deal with their unique situations. Burning bridges with anger only serves to create enemies and feed the stereotype of vegans as hostile, isolated misanthropes. As long as we remain respectful, our positive example of veganism, as well as the information we provide, will
ultimately be the best voice for the animals.
Although some of the information regarding vegetarianism is outdated or biased, there is a lot of solid information available to help us educate ourselves about the issues. (We list sources of good information later in this booklet.) However, we needn't be encyclopedias of facts. The simplest reasons for being vegan can be the most powerful: "I know that I don't want to suffer. Therefore, I don't want to cause others to suffer."

On Being Vegan
The most important tool we have in our efforts against cruelty to animals is our positive, sincere, thoughtful example. Looking at the long-term changes in society, we can know that each of us, in our example, actions, attitude-our entire exis-tence-is changing the world. If we could focus all our energies on understanding and outreach, rather than on anger, the world would be significantly better. Living honestly and compassionately as a vegan is an affirmation of life, a means to fulfillment and joy. These positive aspects of veganism are what we must embrace for ourselves and communicate to others.

Speciesism Speciesism is the act of treating individuals according to the species to which they belong, rather than according to the characteristics they possess, such as the ability to suffer. Most people who consciously support the exploitation of nonhuman animals are speciesist.

In the past, there have been a number of definitions of what constitutes a different species. Today it is defined genetically. To the defenders of speciesism who believe that only humans have rights, this raises the following questions:

- Why should rights be granted on the basis of genes?
- If rights should be based on genes, why should the line be drawn at species rather than at race, order, phylum, or kingdom?
- Like genes that determine one's eye color, etc., which gene(s) determines rights?
Basing rights on species is no more rational than basing rights on the pigmentation of skin or on gender (which are also determined genetically).

Animal Rights As a society, we recognize the basic right to our lives and bodies. We consider these rights inalienable, meaning that no one can take them away.

Society grants humans the right to our lives because of our strong desire to avoid death, and our fear when our lives are threatened. We are granted control over our own bodies because we suffer pain when our bodies are
 prove human superiority cannot shatter this hard fact: in suffering, the animals are our equals!'
 author of ANIMAL LIBERATION
mutilated, and boredom and frustration when caged for long periods of time. Since we understand how horrible these sorts of suffering are, we protect humans from being caged, killed, or mutilated. As an "enlightened" society, we condemn those who would violate these rights of other humans.

Based on common physiology and behavior, it is safe to say that cows, pigs, chickens, and other animals we raise to eat also experience fear when their lives are threatened, pain when their bodies are mutilated, and boredom and frustration when caged for long periods of time. Nonhuman animals show they value their lives and freedom by their struggles against being caged, mutilated, and killed. Depriving them of life or freedom harms them in many of the same ways that humans are harmed when deprived of life or freedom.

Since animals can feel pain, and desire to live as we do, shouldn't they be recognized as worthy of inherent rights? Shouldn't they be given protection for their lives and bodies? As individuals capable of acting morally, how can we justify their continued exploitation and slaughter?
"Beyond Might Makes Right," a longer essay on animal rights, is available as part of our VEGAN ADVOCACY booklet; "A Theory of Ethics," a first-principle philosophy, is available at veganoutreach.org. Animal Liberation, the classic book by Peter Singer is also available from Vegan Outreach; Singer's PRACTICAL ETHICS (2 ${ }^{\text {nd }}$ edition) is also an excellent resource.

Clam
Egg replacer is ideal for baking and can be used in any recipe that calls for eggs as a binding agent.
Try Ener-G Egg Replacer, a blend of raising ingredients and stabilizers including potato starch and tapioca flour. Bananas, silken tofu, and apple sauce also serve as egg substitutes in baking

Meats alternatives are increasingly available, both in the number of varieties, and the locations where they are sold. There are too many to list here, but some of our favorites include Gardenburger Flame Grilled Hamburger Style, Lightlife's Fakin' Bacon and Gimme Lean Sausage Style and Ground Beef Style, Turtle Island Food's Tofurky Deli Slices, and Yves Veggie Cuisine's Canadian Veggie Bacon.
Milk alternatives can be made from nondairy sources: almonds, oats, potatoes, rice, or soy. Most vegan milks are fortified with calcium, vitamins D and B12, etc.; some contain sweeteners and come in flavored varieties like chocolate, carob, or vanilla. Taste and richness vary widely from brand to brand, so experiment to find your favorite. You'll find vegan milks in the dairy case, as well as in shelf-stable aseptic packages, which require refrigeration after opening.

Although some are delicious to drink straight from the carton, milk alternatives are indispensable for eating cereal and making creamed soups and sauces, milk shakes, frozen desserts, and baked goods. There are vegan creamers available for your coffee, too.


Miso is made from fermented soybeans, rice, barley, and other grains. Different types of miso vary in flavor, aroma, and color. Tamari and shoyu can be used in place of dark miso for flavoring. These sauces are superior to most commercial soy sauces, which are unfermented.

Nutritional yeast adds a toasted nutty-cheesy flavor, as well as important nutrients, to all sorts of foods. Red Star Vegetarian Support Formula (T6635+) is fortified with vitamin B12, and available as flakes or powder.

Seitan [say'tan] is a meat alternative. Most of what people like about meat is the texture and the seasoning. The seasoning is easy; for texture, seitan comes closest.

Seitan, or wheat meat, is versatile, succulent, hearty, and chewy. It is available already prepared (frozen or refrigerated) or in ready-tomake mixes. Homemade seitan is also relatively easy to prepare (see page 9 for recipe). Given that seitan keeps well, it's good to make a lot to have on hand.
The main ingredient is vital wheat gluten (also called instant gluten flour), which can generally be found in the baking aisle at larger grocery stores. Be sure not to substitute any other flour-high gluten flour is not the same.

Seitan can be prepared several different ways, each of which has variations limited only by one's spice cabinet and imagination. VEGAN VITTLES (see resources on page 11) has an excellent section on seitan, including recipes for ground seitan, sausage-style seitan, and seitan salami, pepperoni, and pastrami-plus many helpful tips.

Soy margarine is a great substitute for butter when baking cakes and other desserts. Earth Balance Natural Buttery Spread (nonhydrogenated and GMO-free) is tasty on bread.
Tahini, a staple in Middle Eastern cooking, is a versatile paste made from ground hulled sesame seeds. (Sesame butter, from unhulled seeds, is thicker and more bitter.) Tahini made from roasted seeds has a stronger flavor than the variety made from raw seeds. Tahini is calcium-rich, and its nutty taste and creamy consistency are great for sauces, dips, spreads, and creamy dressings.

Tempeh is another meat alternative. It is traditionally made from fermented whole soybeans, although some commercially available varieties are made from soybeans combined with grains or other beans. Tempeh is richer in absorbable nutrients and more flavorful than tofu.

Tofu (bean curd) is made from the mild white milk of the soybean. Inexpensive and easy to find, tofu is a great source of protein.

There are two major types of tofu. Silken tofu (such as Mori-Nu brand), sold in shelf-stable aseptic packages, is used for dressings, spreads, sauces, soups, desserts, and baked goods. Regular tofu, sold water-packed and refrigerated, is generally used as a meat substitute. It is firmer than

Many people believe that eliminating animal products will greatly narrow their menus. But according to most vegans, quite the opposite happens. Once you start frequenting your local health/natural food stores and co-ops, perusing the dozens of vegan cookbooks, or just following the suggestions in this booklet, you will soon become familiar with the wide variety of options that weren't a part of your previous diet. Over time, you will also discover that it is possible to follow almost any recipe by substituting ingredients.

For those who prefer not to cook, there are a wide variety of packaged foods from which to choose: frozen dinners; canned and dehydrated soups, stews, and chilies; items of all sorts for quick and easy sandwiches like vegan dogs and burgers, deli slices, bacons, sausages, untuna and unchicken salads, and soy and rice cheeses; and delicious desserts including soy yogurts and ice creams. The variety is growing every year. You may even find that your local health food store has its own deli counter, stocked with prepared foods.

More and more super-
Have a veggie burger with all the fixin's!
markets are starting to carry the same products that used to be found only in specialty stores. If you do not have many vegan offerings in your area, you may want to contact THE MAIL ORDER CATALOG (800•695•2241; healthy-eating.com), a great source for ordering meat and dairy substitutes like soy products, seitan, TVP, nutritional yeast-even vegan broth mixes.
silken tofu and can be frozen, which produces a chewy texture.

Tofu's neutral taste makes it extremely versatile, allowing it to pick up flavors from herbs, spices, and other ingredients. Pressed tofu can be baked, broiled, grilled, marinated, scrambled, stirfried, steamed, or crumbled into salads. White Wave produces baked tofu in several flavors: barbecue, Thai, Italian, etc.

Tofu is a wonderful substitute for dairy products. You can select from the variety of ready-made tofu
 products on the market (e.g., cream cheese, sour cream, and mayonnaise) or create your own dairy alternatives (e.g., mix tofu with lemon, sugar, salt, oil, basil, and garlic to make ricotta-style filling for veggie lasagna). Tofu can also be used for tasty cheesecakes, cream pies, puddings, ice creams, and more!
TVP (texturized vegetable protein) is made from soy flour that has been cooked under pressure, extruded, and dried. Since the oil has been extracted, it has a long shelf-life. TVP is high in protein, iron, calcium, fiber, and zinc. It can be used in recipes instead of ground meat.

## hummus

3 Ttahini
1 T toasted sesame oil (or olive or canola oil) $1 / 2$ lemon, juiced
$1 / 2$ C water (use a bit less for a stiffer texture)
1 large garlic clove, mashed
115 oz. can chickpeas, drained
salt \& pepper, to taste
Slowly add water to tahini, oil, lemon juice, and garlic. Combine sauce, chickpeas, and salt \& pepper in a blender. Blend to desired consistency.
Serve with raw vegetables or chips as a dip; on crackers as a spread; or stuff into warmed pita bread halves with grated carrots, shredded lettuce, or fresh alfalfa sprouts on top.
Variations: Add spices such as cumin and coriander; blend in vegetables such as red pepper; or stir in chopped olives, sun-dried tomatoes, etc.

## BLACK BEAN SOUP with ORANGE JUICE

from The Convenient Vegetarian, o v. Messina \& K. Schumann, 1999
1 T canola or olive oil
2 carrots, finely diced
2 stalks celery, thinly sliced (optional)
1 medium onion, minced
1 C vegetable broth, or 1 C water +1 T tamari
(or miso or soy sauce)
215 oz. cans black beans or 4 C cooked
$1 / 2$ C orange juice
2 tsp. cumin
2 tsp. ground coriander
2 limes, juiced
2 tsp. salt
1 tsp. freshly ground black pepper
In a large saucepan, heat oil over medium heat. Sauté carrots, celery, and onions until tender (about 7-10 min.). Add broth, beans, orange juice, and spices. Simmer covered for 10 min., stirring occasionally. Add lime juice, salt, and pepper.

For smoother soup, use a hand blender to purée soup for 30 sec.; or remove
portion of soup to blender or food processor, liquify, and return to soup pot.
more recipes on page 9

## Do you really need a recipe?

It's fun to find a new recipe and add it to your regular favorites. Most of the time, though, you're too busy to cook with a recipe. You whip up dishes that are familiar and easy to prepare. What can you make that doesn't require any reading or measuring, but is tasty and nutritious?

Here are a few ideas:
Veggie burgers or dogs, mashed or baked potatoes, steamed veggies
Pasta with prepared sauce, salad, bread
Canned beans, rice, steamed veggies, salad
Canned soup, salad, whole grain bread or rolls
Burritos with canned refried beans, shredded soy cheese, chopped tomatoes, and lettuce

We use the "meat, potatoes, and vegetable" approach to a meal, and sauce it up! Simply pick one or more of each:

## Protein source

Beans, tempeh, tofu, seitan, vegan meat (like veggie burgers or Gimme Lean), etc.

## Carbohydrate source

Bread, pasta, rice, potatoes, more "exotic" grains (quinoa, amaranth), etc.
Veggies Countless options
Sauce
There are so many canned or bottled sauces available at most supermarkets, from the mundane (such as basic tomato or barbecue sauce) to the exotic (such as Thai sesame lime marinade or chocolate chili salsa).

You can marinate and cook (bake or fry) your protein in sauce, and/or pour sauce over your carbohydrate source and veggies (including salad). Many sauces can be made even more nutritious with the addition of nuts,
 best in cold sauces or dressings with an already strong flavor. With the variety of sauces available and the number of combinations of foods, one can easily try innumerable new "recipes" without ever cracking a cookbook!

Modified by Anne Green from The Convenient Vegetarian by Virginia Messina, R.D.
\& Kate Schumann


The vegan diet appears to be a relatively new experiment in the history of human eating. It has only been since the mid-1940s that it has been practiced in an organized fashion in the Western world. So far, the experiment appears to be successful: vegans in developed countries have been shown to have the same overall mortality rates as meat eaters with healthy lifestyles (low smoking and alcohol intake). ${ }^{2}$ These mortality rates (deaths per year before age 90) are about $50 \%$ lower than those of the general population. ${ }^{2}$
In their 1997 position paper on vegetarian diets, the American Dietetic Association states:

Scientific data suggest positive relationships between a vegetarian diet and reduced risk for several chronic degenerative diseases and conditions, including obesity, coronary artery disease, hypertension, diabetes mellitus, and some types of cancer.... Well-planned vegan and lacto-ovovegetarian diets are appropriate for all stages of the life cycle, including during pregnancy and lactation. Appropriately planned vegan and lacto-ovo-vegetarian diets satisfy nutrient needs of infants, children, and adolescents and promote normal growth. ${ }^{30}$
"Health Benefits of a Vegetarian Diet," a 1999 paper coauthored by two experts on the mortality rates of vegetarians, concludes:

Compared with non-vegetarians, Western vegetarians have a lower mean BMI (by about $1 \mathrm{~kg} / \mathrm{m}^{2}$ ), a lower mean plasma total cholesterol concentration (by about $0.5 \mathrm{mmol} / 1$ [19 mg/dl]), and a lower mortality from IHD [ischemic heart disease] (by about 25\%). They may also have a lower risk for some other diseases such as diverticular disease, gallstones and appendicitis. No differences in mortality from common cancers have been established. There is no evidence of adverse effects on mortality. Much more information is needed, particularly on other causes of death, osteoporosis, and long-term health in vegans. ${ }^{35}$

A study of 34,192 members of the Seventh-day Adventist (SDA) church living in Southern California ${ }^{1}$ showed them to be the longest-lived formally studied population in the world (with an average life span of 78.5 years for men, 82.3 for women). ${ }^{27}$ Twenty-nine percent were vegetarian, $7-10 \%$ of which were vegan. Compared to the nonvegetarians, SDA vegetarian men

- had a 38\% lower heart disease rate (no difference for the women);
- lived 3.21 years longer, and the women lived 2.52 years longer.
SDA vegetarians had about
- half the high blood pressure and diabetes;
- half the colon cancer;
- two-thirds the rheumatoid arthritis and prostate cancer.

Staydng a) Heajuy V/egan by Jack Norris, R.D. President, Vegan Outreach

The following is an abridged version of "Staying a Healthy Vegan." For details and references, please see the full article and endnotes at veganoutreach.org/shv.

## "I Was Vegan for a While, But..."

There are a number of nutritional issues that, if not attended to, could make someone feel less than optimal on a vegan diet. Some examples include eating enough calories, protein, vitamin B12, calcium, and vitamin D.

Consuming an adequate amount of calories can be a challenge for a new vegan. Someone on the standard Western diet may only be aware of vegan foods that are low in calories (e.g., salads, vegetables, fruits). Eating only these foods will likely leave someone unsatisfied and thinking the vegan diet is to blame, when all they need to do is eat more high-calorie foods.

People once believed that vegans had to combine particular foods at every meal to get the proper balance of amino acids (the building blocks of protein). We now know that this is not the case. However, some vegans may not get enough total protein (see protein section on page 7 ).

Some vegan advocates emphasize that humans need only small amounts of B12, and that it can be stored in the body for years. It is true that, at the time they become vegan, some people have enough B12 stored in their liver to prevent serious B12 deficiency for many years. However, people often misinterpret this to mean that one need only consume a tiny amount of B12 once every few years. Actually, to build up such stores, it takes many years of consuming B12 beyond one's daily needs. Many people do not have such stores. This problem is easily solved by eating B12-fortified foods or taking a supplement.
One can find certain studies that support the idea that meat, eggs, and dairy are the cause of osteoporosis. However, selectively choosing such studies leaves out the majority of research published on the subject. Someone who evaluates more of the research will likely conclude that vegans, like non-vegans, should ensure daily sources of calcium and vitamin D.

There are real differences in how people respond to various diets. While many people thrive on a vegan diet, it may not be so easy for others.

When someone is committed to reducing animal suffering, there are often solutions to these dilemmas. Affirming everyone's experience is the first step in working with people towards a more humane diet.

## Nutrients That Need Attention in Vegan Diets

## Vitamin B12

- There are no reliable unfortified plant sources of vitamin B12; therefore, fortified foods and/or supplements are necessary for the optimal health of vegans. ${ }^{31}$
- Do not rely on any seaweed (e.g., algae, nori, spirulina), brewer's yeast, tempeh, or "living" vitamin supplement that uses plants as a source of B12. Do not rely solely on one type of fortified food such as Red Star Vegetarian Support Formula Nutritional Yeast.
- B12 protects the nervous system. Without it, permanent damage can result (e.g., blindness, deafness, dementia). Fatigue, and tingling in the hands or feet, can be early signs of deficiency.
- B12 keeps the digestive system healthy. By lowering homocysteine levels, it also reduces the risk of heart disease, stroke, neural tube defects, and other diseases. Vegans who do not supplement with vitamin B12 have consistently shown elevated homocysteine levels.
- Vegan infants need B12 through breast milk (their mothers must have a consistent B12 intake) or formula.


## Vitamin B12 Recommendations

- The Recommended Dietary Allowance (RDA) for vitamin B12 is 2.4 micrograms for adults (abbreviated as mcg or $\mu \mathrm{g} ; 1,000 \mu \mathrm{~g}=1 \mathrm{mg}$ ).
- In fortified foods, the amount listed on the nutrition label is based on $6 \mu \mathrm{~g} /$ day. For example, $25 \%$ of the Daily Value $=.25 * 6 \mu \mathrm{~g}=1.5 \mu \mathrm{~g}$.
- Follow steps 1 and 2 below if you have not had a regular source of B12 for some time; if you have, go directly to step 2 .
Step 1. Buy a bottle of sublingual B12 and dissolve $2,000 \mathrm{mcg}$ under your tongue, once a day, for two weeks. The following are vegan:
- Solgar 1,000 mcg nuggets
- VegLife 1,000 mcg lozenges
- Freeda Vitamins 500 mcg lozenges
- Nature's Bounty 2,500 mcg tablets

Step 2. Follow one of these daily recommendations to maximize your B12 status:

- Eat two 3-5 mcg servings of fortified foods (spaced at least six hours apart)
- Take one 10-100 mcg supplement
- Take two 5 mcg supplements (spaced at least six hours apart)
Note: Tablets from step 1 can be broken for smaller doses until you finish the bottle. It's okay to take more than recommended.

Beans and Nuts In addition to being excellent sources of protein, beans and nuts have many other benefits such as vitamins, minerals, fiber, and other chemicals that may prevent cancer and heart disease. ${ }^{28,29}$ Nuts also contain monounsaturated fats, which are healthy for the heart. In one study, eating nuts (including peanuts) ${ }^{34}$ five or more times per week reduced heart disease by about $50 \%$ ! 1
Fruits and Vegetables High fruit and vegetable consumption has been associated with a reduced risk for cardiovascular disease, several common cancers, and other chronic diseases (such as macular degeneration and cataracts).

Whole Grains Whole-grain consumption has been associated with a reduced risk for heart disease, diabetes, hypertension, and stomach and colon cancers. Whole grains include brown rice, whole-wheat bread, barley, oatmeal, corn, quinoa, and millet.


## Fats

The following is a quick summary about fats intended simply to give basic recommendations. For a more comprehensive discussion, see "The Challenge of Defining Optimal Fat Intake" by Virginia Messina, M.P.H., R.D. (available at www.andrews.edu/NUFS/vndpg.html).

## Saturated Fats

- Many saturated fats raise the risk of heart disease.
- Saturated fats are found in high amounts in animal products, as well as in coconut and palm kernel oils.
- Saturated fats are stable at high temperatures. If you are going to fry foods at high temperatures, palm oil may be the best vegan choice for its stability. However, deep-fried foods should be limited.


## Trans Fats

- Trans fats are found mostly in foods made with hydrogenated and/or partially hydrogenated oils, including many margarines, shortenings, commercial frying fats, crackers, cookies, and other snacks. (Read the label to determine whether the product contains hydrogenated oils.)
- Butter and animal fat can also contain trans fats from bacterial fermentation. ${ }^{33}$
- The consensus among nutritional professionals is that trans fats increase the risk of heart disease and many other diseases.


## MONOUNSATURATED Fats (MUFA)

- MUFA improve cholesterol levels.
- MUFA are abundant in olive oil, canola oil, high oleic sunflower oil, hazelnut oil, high oleic safflower oil, and almond oil.
- Olive may be the best oil for cooking at moderate temperatures. It is not as refined as other oils, making it a reliable source of vitamin E. It has stood the test of time as the primary oil used in the healthy Mediterranean diet. If you do not like the taste of olive oil in some dishes, try other oils high in MUFA.
- Avocados and many nuts (almonds, cashews, filberts/hazelnuts, macadamias, peanuts, pecans) are high in MUFA. Because nuts are high in nutrients and other protective compounds, adults can benefit from eating them on a daily basis.


## Polyunsaturated Fats (PUFA)

There are two main families of PUFA: omega-6s and omega-3s.

## Omega-6s (n-6 fatty acids)

- Omega-6s are building blocks for hormones that increase inflammation and blood clotting.
- Linoleic acid is the most prevalent omega-6 in plant foods
- Omega-6s are prevalent in corn, sunflower, "vegetable," and safflower oils. Since most vegans get too many $n-6 s$, they should consume a limited amount of these oils. ${ }^{39}$


## Omega-3s (n-3 fatty acids)

- There are three important omega-3 fatty acids:
- Alpha-linolenic acid (LNA) is found mainly in flaxseeds, hemp seeds, walnuts, soybeans, and their oils, as well as in canola oil. It reduces blood clotting, improves artery flexibility, and may also reduce heart arrhythmias. LNA shows a strong association with reduced cardiovascular mortality rates, including those from heart attack and stroke.
- Eicosapentaenoic acid (EPA), found mainly in fatty fish, serves as a precursor for the eicosanoids (hormonelike substances that act on local tissues) that reduce inflammation, blood clotting, and cholesterol.
- Docosahexaenoic acid (DHA), found mainly in fatty fish and seaweed, is a major structural component of the gray matter of the brain, the retina of the eye, and cell membranes. Low DHA levels are associated with depression.
- For some of its benefits, LNA must be converted to EPA, which in turn must be converted to eicosanoids or DHA. DHA can also be retroconverted into EPA at a rate of about $10 \% .{ }^{37}$ Although there
is no clear evidence that vegans require supplements of DHA or EPA, vegan supplements of DHA are available:
- NuTru's O-Mega-Zen3 300 mg gelcaps (nutru.com/omega.htm; can be purchased from veganstore.com or veganessentials.com) - Genestra's Neurogen DHA 100 mg capsules (marketed by Seroyal out of Toronto, Ontario; call 800-263-5861)
Note: Neuromins DHA is available at most health food stores, but it comes in capsules made from animal gelatin.


## About Flaxseeds

- Flaxseed oil is the most concentrated source of LNA.
- One teaspoon of flaxseed oil contains 2.5 g of LNA. Cooking flaxseed oil damages the LNA, but it can be put on warm food such as toast. Flaxseed oil should be kept in the refrigerator.
- One tablespoon of flaxseeds contains 2.1 g of LNA. If flaxseeds are not ground, they may not be digested. They can be ground in a blender (works best with a large amount) or coffee grinder and then stored in the freezer. Ground flaxseeds can be sprinkled on cereal or used in baked goods.


## PUFA Recommendations

- Be sure to follow the table below, as many vegans do not get enough n-3 fatty acids. ${ }^{15}$

| Age (yrs.) | $\begin{aligned} & \text { LNA } \\ & \text { (g/day) } \end{aligned}$ | Flaxseed Oil (rounded tsp.) |
| :---: | :---: | :---: |
| .5-6 | .9-2.0 | 1/2 |
| $>7$ | 2.2-3.3 | 1 |
| Pregnant* |  |  |
| $2^{\text {nd }}$ Trimester | extra .3 | extra 1/2 |
| $3{ }^{\text {rd }}$ Trimester | extra. 3 | extra $1 / 2$ |
| Lactating* | extra 6 | extra 1/2 |

*Pregnant and lactating women should consider replacing the extra $1 / 2$ tsp. of flaxseed oil with $300 \mathrm{mg}(.3 \mathrm{~g})$ of DHA because infants have more difficulty converting $\mathrm{n}-3 \mathrm{~s}$.

- Limiting n-6 intake is important for maximizing the conversion of $\mathrm{n}-3 \mathrm{~s}$. You should aim for an $\mathrm{n}-6$ to $\mathrm{n}-3$ ratio of $4: 1$ or less.

| Source of $\mathrm{n}-3$ | $\mathrm{n}-6: \mathrm{n}-\mathbf{3}^{*}$ |
| :--- | ---: |
| Flaxseed oil | $1: 4$ |
| Canola oil | $2: 1$ |
| English walnuts | $4: 1-5: 1$ |
| Walnut oil | $5: 1$ |
| Soybean oil | $7.5: 1$ |
| Black walnuts | $10: 1$ |
| *Approximate. |  |

- Flaxseed oil goes a long way in correcting the imbalance in a typical vegan diet, but you should only take the recommended amounts. If you prefer oils on foods such as bread, I recommend raw olive or raw canola oil to minimize your $\mathrm{n}-6$ to n-3 ratio, as well as for other benefits.
- People with diabetes do not efficiently convert LNA to EPA and DHA. Diabetic vegans should replace .3 g of LNA with 300 mg of DHA per day.


## Calcium

- Recent small studies have shown vegans to have the same or slightly worse bone mineral density as non-vegans. $5,6,7,8,9$ Factors that can prevent osteoporosis include
- weight-bearing exercise throughout one's lifetime (one of the most important);
- adequate calcium, vitamin D, vitamin K, protein, potassium, magnesium, and boron intakes;
- adequate estrogen levels (for women).

Factors that can contribute to osteoporosis include

- high sodium and caffeine intakes;
- smoking;
- too much, or too little, protein.
- Plant foods that provide calcium offer other nutrients that are good for bones: vitamin K in leafy greens; and vitamin C, potassium, and magnesium in calcium-fortified orange juice. Beans, nuts, leafy green vegetables, and noncitrus fruits are good sources of boron. ${ }^{10}$

| Food | Serving | Ca (mg) |
| :--- | ---: | ---: |
| Orange juice, fortified | 1 C | $250-300$ |
| Soymilk, fortified | 1 C | $200-300$ |
| Tofu (if "calcium-set")* | $1 / 2 \mathrm{C}$ | $120-300$ |
| Figs, dried | 5 | 258 |
| Blackstrap molasses | 1 T | 187 |
| Collard greens $\dagger$ | $1 / 2 \mathrm{C}$ | 178 |
| Sesame seeds | 2 T | 176 |
| Veg. baked beans ${ }^{\dagger}$ | 1 C | 128 |
| Navy beans ${ }^{\dagger}$ | 1 C | 128 |
| Broccolit | $1 / 2 \mathrm{C}$ | 50 |
| Almonds | 2 T | 50 |
| Kale $\dagger$ | $1 / 2 \mathrm{C}$ | 47 |

*Read the label for calcium amounts.
+Cooked.

- The absorbability of the calcium in kale, broccoli, collard greens, and soymilk is about the same as that in cows' milk, which contains $300 \mathrm{mg} / \mathrm{C}$.
- The calcium in spinach, Swiss chard, and beet greens is not well absorbed, due to their high content of oxalates, which bind calcium.
- Many nondairy milks are now fortified with calcium, vitamin D, and/or vitamin B12.
- Many orange juices are fortified with calcium.
- Calcium supplements inhibit iron absorption if eaten at the same time. ${ }^{23}$


## Calcium Recommendations

- The Daily Value for calcium on food labels is $1,000 \mathrm{mg}$. If a food label says $25 \%$ of the Daily Value, it has 250 mg of calcium per serving.
- Dietary Reference Intake (DRI) for calcium:

| Age (yrs.) | DRI (mg) | Upper Limit * (mg) |
| :--- | ---: | ---: |
| $1-3$ | 500 | 2,500 |
| $4-8$ | 800 | 2,500 |
| $9-18$ | 1,300 | 2,500 |
| $19-50$ | 1,000 | 2,500 |
| $>50$ | 1,200 | 2,500 |

[^0]
## Vitamin D

- Vitamin D regulates calcium absorption and excretion, especially when calcium intake is low.
- Vitamin D can be made by the action of sun-
light (UV rays) on skin. Light-skinned nonelderly adults exposing their hands and faces to sunlight for 10-15 minutes, two to three times per week can get enough vitamin $D$.
- Elderly people may need up to four times the amount of sunlight exposure listed above, ${ }^{18}$ and dark-skinned people may need up to six times this amount in order to meet vitamin D needs through sunshine alone.
- According to some experts, dark-skinned, breastfed babies should have vitamin D supplements. ${ }^{18}$
- Above the $42^{\text {nd }}$ latitude (which runs through Denver, Indianapolis, and Philadelphia), vitamin D is not synthesized during the winter. ${ }^{18}$ Vegans who do not get much sunlight exposure should supplement with vitamin D, especially during the winter or cloudy months.
- One small recent study found an increase in lumbar spine density in four out of five vegans in Finland (a northern country where sunlight does not activate vitamin D during the winter) who took $5 \mathrm{mcg} /$ day of vitamin $\mathrm{D}_{2}$ for 11 months. ${ }^{4}$


## Vitamin D Recommendations

- The Daily Value for vitamin D is 10 mcg ( 400 IU ). If a food label says $25 \%$ of the Daily Value, it has 2.5 mcg (100 IU) per serving. Typical fortified soy, almond, and rice milks have $2-3 \mathrm{mcg}$ ( $80-120 \mathrm{IU}$ ) per cup.
- Country Life and Thompson Nutritional Products make a vitamin D of ergocalciferol, which comes from plants; others are available.
- Dietary Reference Intake (DRI) for vitamin D:

| Age (yrs.) | $\begin{gathered} \mathrm{DRI} \\ \left(\mathrm{mcg}^{\dagger}[\mathrm{IU}]\right) \end{gathered}$ | Upper Limit* (mcg [IU]) |
| :---: | :---: | :---: |
| <1 | 5 (200) | $25(1,000)$ |
| 1-50ł | 5 (200) | $50(2,000)$ |
| 51-70 | 10 (400) | $50(2,000)$ |
| >70 | 15 (600) | $50(2,000)$ |

*Do not exceed the upper limit.
$\dagger \mathrm{mcg}=$ microgram $=\mu \mathrm{g}$.
$\ddagger$ Including during pregnancy.

## Iodine

- Iodine is needed for healthy thyroid function, which regulates metabolism.
- Receiving an adequate amount of iodine through foods is not as much of a problem for U.S. vegans as it is for European vegans, ${ }^{19,20}$ whose food supply contains less iodine.


## Iodine Recommendations

- Since it's very hard to predict how much iodine is in any given person's food supply, North American vegans should take a modest supplement on a regular basis to ensure they are meeting requirements; 75-150 mcg every few days should be ample.
- RDA for iodine:

| Age (yrs.) | RDA (mcg)* | Upper Limit ${ }^{(m c g)}$ |
| :---: | :---: | :---: |
| 1-3 | 90 | 200 |
| 4-8 | 90 | 300 |
| 9-13 | 120 | 600 |
| 14-18 | 150 | 900 |
| > 18 | 150 | 1,100 |
| Pregnant |  |  |
| $\leq 18$ | 220 | 900 |
| $>18$ | 220 | 1,100 |
| Lactating |  |  |
| $\leq 18$ | 290 | 900 |
| $>18$ | 290 | 1,100 |
| *mcg $=$ microgram $=\mu \mathrm{g}$. <br> $\dagger$ Important: Do not exceed the upper limit. |  |  |

## Protein

- The plant foods highest in protein are legumes (beans, peanuts, soyfoods such as tofu) and nuts, but grains and vegetables also contain significant amounts. Here are some high-protein plant foods:

| Food | Serving | Protein (g) |
| :--- | ---: | ---: |
| Tofu | $1 / 2 \mathrm{C}$ | $10-20$ |
| Veggie dog/burger | 1 | $6-18$ |
| Soybeans* | $1 / 2 \mathrm{C}$ | 14.3 |
| Texturized soy protein | $1 / 2 \mathrm{C}$ | 11 |
| Soymilk | 1 C | $5-10$ |
| Lentils* | $1 / 2 \mathrm{C}$ | 8.9 |
| Peanut butter | 2 T | 8.0 |
| Chickpeas* | $1 / 2 \mathrm{C}$ | 7.5 |
| Sunflower seeds | 2 T | 5.0 |
| Brown rice | 1 C | 4.9 |
| Potato | 1 med. | 4.5 |
| *Cooked. |  |  |

- Vegans may not meet their protein needs, resulting in loss of muscle mass and/or reduced immunity, if
- food intake does not meet energy needs, such as in cases of anorexia nervosa, depression, poverty, illness, ${ }^{3}$ or dieting;
- higher-protein plant foods are not included in sufficient amounts. This can happen when - most food eaten is junk food such as French fries, soda, etc.;
- beans are avoided ${ }^{3}$ (in which case, other high-protein foods should be used instead); - protein is believed to be unimportant or higher-protein foods are avoided (such as in some fruitarian or raw-food diets).


## Protein Recommendations

- Experts recommend that adult vegans eat .4 g of protein per day for every pound of healthy body weight. ${ }^{22}$
- Protein recommendations for young vegans: ${ }^{26}$

| Age (yrs.) | Females (g/day) | Males (g/day) |
| :--- | ---: | :---: |
| $1-2$ | $18-19$ | $18-19$ |
| $2-3$ | $18-21$ | $18-21$ |
| $4-6$ | $26-28$ | $26-28$ |
| $7-10$ | $31-34$ | $31-34$ |
| $11-14$ | $51-55$ | $50-54$ |
| $15-18$ | $50-55$ | $66-73$ |

## Young Vegans

Infants The American Dietetic Association and the American Academy of Pediatrics agree that well-planned vegan diets can satisfy the nutrient needs and normal growth of infants. ${ }^{25}$ For more information on the needs of vegan infants, please refer to BECOMING VEGAN (see nutrition resources listing below).

Fiber and Children Vegan children can easily exceed the upper limit for fiber. Therefore, it is recommended they eat half of their servings of grains as refined (e.g., white pasta, white rice, white bread). ${ }^{26}$ Vegan children may benefit from some other low-fiber foods such as peeled fruits and vegetables, nut butters, and added oils. ${ }^{26}$ For younger children, be sure to chop or grind nuts well enough to prevent choking.

## Amino Acids

Taurine, carnitine, and creatine are found either primarily or only in animal products. However, since the body can make these molecules, extra supplementation isn't generally needed for vegans.

## Iron

- Iron-deficient anemia is probably one of the most inaccurately self-diagnosed illnesses. It is a serious disease, and those who think they may be suffering from it should see a doctor.
- Iron-deficiency symptoms include pale skin, brittle fingernails, fatigue, weakness, difficulty breathing upon exertion, inadequate temperature regulation, loss of appetite, and apathy.
- Iron in vegetarian diets is a somewhat controversial topic for a number of reasons:
- Although vegetarians' ferritin (the storage form of iron) levels are normally lower than nonvegetarians, they are no more likely to have iron-deficiency anemia.
- Low iron stores are associated with higher glucose tolerance and therefore could prevent diabetes.
- High iron stores are associated with cancer and, to a lesser extent, heart disease.
- Before someone actively tries to increase their iron absorption, they should have their ferritin levels checked to make sure they do not have a disease that increases iron storage (e.g., hemochromatosis). (Because of blood loss, menstruating vegan women do not need their serum ferritin levels checked; they can go ahead and take steps to increase iron absorption.)
- Vegans tend to have iron intakes at least as high as non-vegetarians. However, plant iron is generally not absorbed as well as iron from meat.
- Vitamin C significantly aids in plant-iron absorption (they must be eaten at the same meal). A $3 / 4$-cup serving ( 6 fl . oz.) of orange juice contains 93 mg of vitamin C.
- In one study, vegetarian children with irondeficiency anemia were given 100 mg tablets of vitamin C at both lunch and dinner for 60 days. They saw a drastic improvement in their anemia, with most making a full recovery. ${ }^{40}$
- Calcium supplements, coffee, and tea inhibit iron absorption if eaten at the same time. ${ }^{23}$


## Iron Recommendations

You probably do not need to worry about iron if you are otherwise healthy and eat a varied vegan diet. If you suspect an iron deficiency, see a doctor. If your doctor thinks your iron stores are too low, eating meat (which is unnecessary) or taking an iron supplement may be suggested. Taking a 100 mg tablet of vitamin C with two meals a day for 60 days should improve the anemia.

## Zinc

- Zinc is not found in large amounts in plant foods, but vegetarians tend to have adequate zinc status.
- Symptoms of zinc deficiency include poor growth and delayed sexual maturation in children, poor wound healing, hair loss, impaired immune function, and dermatitis (especially around body orifices). ${ }^{23}$
- Sources of zinc include corn, peas, cashews, peanuts, peanut butter, pumpkin seeds, and sunflower seeds; cereals are often fortified with zinc.
- The leavening of bread (most bread is leavened) and fermenting of soyfoods (tempeh and miso) enhance zinc absorption. ${ }^{26}$


## Selenium

- Selenium intake is more related to the selenium content of the soil than to dietary pattern. U.S. and Canadian soil appears to be adequate in selenium. Studies of vegetarians and vegans in the United States have shown them to have adequate intakes.
- Selenium is found in many foods, but in higher amounts in Brazil nuts, whole grains (whole-wheat bread, oatmeal, barley), white rice, and beans. ${ }^{22}$


## Vitamin A

- Preformed vitamin A exists only in animal products. However, there are about 50 carotenoids that the body can convert into vitamin A; the most common is beta-carotene.
- The vitamin A content of foods is now stated as retinol activity equivalents (RAE). The RDA of 900
RAE for men and 700 RAE for women can be met with one of the following foods:

| Food | Serving | RAE |
| :--- | ---: | ---: |
| Pumpkin* | 1 C | 1,345 |
| Cantaloupe | $2 / 3$ med. | 1,290 |
| Sweet potato* | 1 med. | 1,244 |
| Carrot | 1 med. | 1,012 |
| *Cooked. |  |  |

- Other sources of vitamin A include kale, mango, spinach, butternut squash, and various greens.


## Multivitamins and Other Nutrients

Some people may have specific problems absorbing or utilizing particular nutrients regardless of their diets. There are certain nutrients that are normally provided adequately by a varied vegan diet, but can be low in some. Riboflavin (vitamin B2) and pyridoxine (vitamin B6) are two such nutrients. Many well-respected health professionals suggest that everyone takes a modest ( $25-100 \%$ of the RDA) multivitamin supplement to be on the safe side. For a list of vegan multivitamins, please see full article at veganoutreach.org/shv.

Summary of
Daily Recommendations for Vegan Adults

|  | Recommended Daily Intake* |
| :--- | :--- |
| Vitamin B12 | $3-100 \mathrm{mcg}(\mu \mathrm{g})$ |
| Omega-3 fats | $2.2-3.3 \mathrm{~g}{ }^{\dagger}$ |
| Calcium | $1,000-1,200 \mathrm{mg}$ |
| Vitamin D | $5-15 \mathrm{mcg}(200-600 \mathrm{IU})$ |
| lodine | $75-150 \mathrm{mcg}$ every few days |
| General health | Plenty of green and yellow <br> vegetables, other vegetables, <br> fruits, nuts, legumes, and <br> whole grains |
| *See specific sections above for needs of other |  |
| age groups. |  |
| +Easily obtained through 1 tsp. of flaxseed oil. |  |

## Nutrition <br> Resources

" "Vitamin B12: Are You Getting It?" by Jack Norris, R.D. and "What Every Vegan Should Know about Vitamin B12: An Open Letter from Health Professionals and Vegan Organizations"; available at veganoutreach.org/health.

■"A Recipe for Abundant Vegan Health" by Dr. Stephen Walsh \& Dr. Glynis Chapman; The VEGAN, autumn 2001, U.K. Vegan Society; available at vegansociety.com/articles/aut01recipe.htm.

■"Vegetarian Diet for Exercise and Athletic Training and Performing: An Update" by D. Enette Larson, M.S., R.D., L.D.; available at www.andrews.edu/NUFS/vegathletes.htm.

- Becoming Vegan by Brenda Davis, R.D. \& Vesanto Melina, M.S., R.D.; can be ordered from veganoutreach.org/catalog or by phoning the Book Publishing Company at $888 \cdot 260 \cdot 8458$.
- Vegetarian Nutrition \& Health Letter published by Loma Linda University; the only university nutrition newsletter dedicated to vegetarian and vegan issues; visit www.llu.edu/ Ilu/vegetarian/subscribe.htm or call $888 \cdot 558 \cdot 8703$ to subscribe (10 issues/year for $\$ 24$ ).


## BROWN RICE with SPICY RED SAUCE and HARVEST of VEGGIES

from The Convenient Vegetarian, © V. Messina \& K. Schumann, 1999
1 T oil (olive or canola oil preferred)
$1 / 2$ C onion, coarsely chopped
1 frozen veggie burger, thawed
6 medium mushrooms, cut into fourths
115 oz. can garbanzo beans (chickpeas), drained, or 2 C cooked, drained
1 C frozen corn kernels
3/4 C tomato-based salsa
pinch dried red pepper flakes (optional)
pinch salt
freshly ground black pepper (to taste)
3 C cooked brown rice
In a large saucepan, heat oil over medium heat. Add onion. Crumble veggie burger into small pieces (resembling ground beef) and add to pan. Cook until onions are transparent and burger pieces are brown (about 8 min .). Add mushrooms. Cover and cook for 1 min . Add beans, corn, salsa, red pepper flakes, salt, and black pepper. Cook 1-2 min. more. Add brown rice and toss until hot and well mixed.
Variations: Substitute any beans, grains, and veggies that are convenient.

## PAD THAI

Noodles and sauce
1 lb . soba, rice, or other noodles
$1 / 3$ C tamari or soy sauce
$1 / 3$ C lemon or lime juice
1-2 T peanut butter
1 T tahini (or omit and use more peanut butter)
$1 / 4$ C sugar or other sweetener
2 T sesame (or other) oil
$1 / 2 \mathrm{lb}$. regular tofu (optional)
1 large onion, chopped
4-8 cloves garlic, minced
$2 "$ piece of fresh ginger, minced (optional)
2 green chiles, seeded and minced,
or $1 / 2 \mathrm{tsp}$. red pepper flakes,
or Thai pepper sauce, to taste
Veggies (mix and match)
1 can water chestnuts
2 C bean sprouts
1 stalk broccoli, chopped
2 C chopped carrots
Prepare noodles, drain and set aside. Mix tamari, lemon/lime juice, peanut butter, tahini, chiles, and sugar. Set aside. In a wok, stir-fry onion, garlic, tofu, and ginger in sesame oil. Add broccoli, carrots, water chestnuts, and a little water and stir-fry for a few minutes. Add tamari mixture, bean sprouts, and noodles, stir and cook until sauce thickens (about 5 min.). Serve with limes, chopped peanuts, and/or sliced green onion. You can, of course, use a store-


## MESSY MIKES (Sloppy Joes)

from VEGAN VITLLES, © J. Stepaniak, 1997
1 T olive or canola oil
1 medium onion, diced
18 oz. package tempeh, crumbled
2 T tamari soy sauce
$1 / 2$ C ketchup
1 tsp. prepared yellow mustard
1 tsp. apple cider vinegar
1 tsp. sugar or other sweetener
Heat the oil in a 2 -quart saucepan over mediumhigh. Add onion, tempeh, and soy sauce, and sauté until onion is tender and lightly browned (about 10 min .).
Add the remaining ingredients, and mix well. Reduce the heat to medium and simmer the mixture uncovered, stirring often, for 10 min . Serve over split burger buns.

## PEANUT BUTTER SPIRALS

2/3 C peanut butter (or tahini)
$3 / 4$ C water
3-4 T soy sauce
2 T mild vinegar (or lemon juice)
1 scallion, coarsely chopped (optional)
1 T sweetener
$1 / 2$ tsp. ground ginger
$1 / 3$ tsp. chili powder, or to taste (or cumin, or vegan barbecue sauce, to taste)
12 oz. uncooked pasta
$11 / 2$ C frozen green peas
Combine first eight ingredients; mix well (food processor or blender works best). Cook pasta and peas according to instructions on package. Combine everything.
Variations: Cool pasta and peas (or just thaw) and serve cold. Sauce is also delicious over rice and steamed vegetables.


## SEITAN (Basic Boiling Recipe)

from VEGAN VITtLES, © J. Stepaniak, 1997
Dry ingredients
$11 / 2 \mathrm{C}$ instant gluten flour (vital wheat gluten)
$1 / 4$ C nutritional yeast flakes (optional; adds a deeper flavor and vitamin B12)
$1 / 2$ tsp. garlic granules (optional; can vary amount)
$1 / 2$ tsp. onion granules
(optional; can vary amount)
desired herbs \& spices: sage, thyme, cumin, chili powder, etc. (optional)

## Liquid ingredients

1 C water, vegetable broth, tomato juice, or a combination (juice adds a "beefier" flavor)
3 T soy sauce
1 T olive oil (optional)
Simmering broth
10 C water or vegetable broth
$1 / 2$ C soy sauce
Combine dry ingredients in a medium mixing bowl.
Combine liquid ingredients in a small mixing bowl. Pour into dry ingredients; mix well. If there is still flour around the edges, add a small amount of additional water.
Knead the gluten directly in the mixing bowl for about a minute. Slice the gluten into three relatively equal pieces, and set aside.
Place the ingredients for the simmering broth into a $41 / 2$-quart saucepan or Dutch oven, add the gluten pieces, and bring to a gentle boil. Reduce the heat to medium-low. Simmer with pot partially covered for 1 hour. Maintain the heat so that the liquid barely simmers; turn gluten over during cooking. Let cool in broth uncovered.
Transfer to storage containers, adding enough of the broth to keep seitan immersed. Seal containers tightly and store in the refrigerator up to ten days or in the freezer for up to six months. To extend the life of fresh or defrosted seitan, boil it in its soy sauce broth for 10 min ., two times a week.


## BEST and FASTEST CHILI

from The Convenient Vegetarian, © V. Messina \& K. Schumann, 1999
just under 1 C boiling water
1 C TVP (texturized vegetable protein)
1 T canola or olive oil
1 onion, coarsely chopped
1 green bell pepper, diced
2 T chili powder
2 tsp. ground cumin
2 tsp. garlic powder
2 tsp. dried oregano
$1 / 4$ tsp. allspice (optional)
215 oz. cans diced or crushed tomatoes
115 oz. can pinto, kidney, or black beans
13 oz. can tomato paste
12 oz. can diced jalapeño chile, or 2 fresh hot chiles, diced
In a small bowl, pour boiling water over texturized vegetable protein. Set aside.
In a large skillet, heat oil over medium heat. Sauté onion and bell pepper until tender (about 8 min .). Add texturized vegetable protein and remaining ingredients. Mix thoroughly.
Simmer 30 min . Serve alone or over a cooked grain of your choice. You can substitute two thawed and crumbled veggie burgers for the reconstituted texturized vegetable protein.

## HOPPIN' JOHN

from The Convenient Vegetarian, © V. Messina \& K. Schumann, 1999
115 oz. can black beans, drained, or 2 C cooked, drained
2 C cooked brown or white rice
$1 / 2$ C finely chopped mild red onion (or other onion)
1 C salsa (spice level to taste)
14 oz . can diced green chiles or $1 / 4 \mathrm{C}$ diced fresh (or more salsa)
$1 / 2$ C chopped scallions (green onions), including green portion (optional)
In a medium bowl, toss beans, rice, red onion, salsa, and chiles. Place in cooking container. Microwave on high for 2-3 min. or bake at $350^{\circ}$ for 25 min . Top with scallions just before serving.

## ROASTED ROOT VEGETABLES

from A TASTE OF VITALITY, a shareware cookbook by Mark Foy (available at www.vitalita.com)

1 large onion, thinly sliced
2 large potatoes, cut into $2^{\prime \prime}$ pieces
$31 / 2$ lbs. sweet potatoes, cut into 2 " pieces (about 4 large sweet potatoes)
2 large carrots, cut into 1 " pieces
5 garlic cloves, crushed
$11 / 2$ tsp. olive oil
2 T dried dill weed
1 tsp. sea salt
Toss cut vegetables, garlic, oil, dill, and salt in a bowl. Transfer to baking sheet (it should not need to be oiled since the vegetables are oiled). Roast in a $450^{\circ}$ oven (no need to preheat oven) for about 50 min ., or until the vegetables are not hard and have browned. During the last 30 min . of roasting, toss vegetables every 10 min . to ensure they do not burn on any one side.
Variations: Use different types of herbs or spices in place of dill weed (such as rosemary or basil, or garam masala for an Indian flavor).

## EASY NUTRITIONAL YEAST CHEESE

3/4C nutritional yeast flakes
$1 / 4$ C flour
1 tsp. salt
$1 / 2$ tsp. garlic powder
2 C water
$1 / 4 C$ vegan margarine
1 tsp. mustard
Mix dry ingredients in a saucepan. Whisk in water. Cook over medium heat, whisking until mixture thickens and bubbles. Cook an additional 30 sec.; remove from heat. Stir in margarine and mustard. Note: Cheese will thicken as it cools, or you may add water to thin it.

## CROCK CHEEZE

from Vegan Vittles, © J. Stepaniak, 1997
$1 / 2 \mathrm{lb}$. regular tofu (firm), rinsed, patted dry, and crumbled
3 T nutritional yeast flakes
2 T tahini
2 T fresh lemon juice
$11 / 2 \mathrm{~T}$ sweet white miso
1 tsp. onion powder
$3 / 4$ tsp. salt
$1 / 2$ tsp. paprika
$1 / 4$ tsp. garlic powder
$1 / 4$ tsp. dry mustard
Place all the ingredients in a food processor fitted with a metal blade and process until very smooth. Chill for at least an hour before serving.


## BEST (and Easiest) CHOCOLATE PUDDING

from VEGAN Vittes, © J. Stepaniak, 1997
$1101 / 2$ oz. package silken tofu (firm), crumbled
$2 / 3 C$ unbleached cane sugar
$1 / 3 C$ unsweetened cocoa powder
2 tsp. vanilla extract
pinch of salt
Place all the ingredients in a food processor fitted with a metal blade and process until smooth, creamy, and thick. Chill in the refrigerator until serving time.

## CHOCOLATE PIE

$2101 / 2$ oz. packages silken tofu (soft)
1 10-12 oz. package vegan chocolate chips
1 vegan graham cracker piecrust
(store-bought or homemade)
Purée the tofu in a blender until completely smooth. Heat the chocolate chips in a double boiler or microwave oven just enough to melt (be careful not to burn them). Combine melted chips with tofu in the blender. Pour the mixture into the piecrust. Chill for at least 2 hours before serving.
Variations: Add a few tablespoons of peanut butter to the mixture while blending or add nuts or berries to the mixture once it is in the crust.

## CHOCOLATE CAKE

1½ C flour
1 C sugar
3 T cocoa or carob powder
1 tsp. baking soda
$1 / 8$ tsp. salt
4 T oil
1 tsp. vanilla
1 T vinegar
1 C cold water
In adequate mixing bowl, combine dry ingredients. In mixture, create three holes. Put oil in the first hole, vanilla in the second, and vinegar in the third. Cover with water and mix thoroughly.
Place the batter in an oiled or nonstick 9" cake pan or equivalent. Bake at $350^{\circ}$ for 35 min . Recipe makes one layer. Cake batter can also be used for cupcakes; bake for 25 min .



## Available from Vegan Outreach..

## PAMPHLETS

In addition to our Vegan Starter Pack, we offer the following booklets. (Suggested donation: 20\$/booklet.)

## Why Vegan?

## Vegetarian Living

## Vegan Advocacy

¿Por Qué Vegano? Spanish-language version of WhY VEGAN?
What Would Jesus Eat...Today? from the Christian Vegetarian Association

## DISPLAY MATERIALS

11" x 17" Display Posters Set of 3...\$10.
$\mathbf{8 1}^{1 / 2 "} \mathbf{x} 11$ " Display Prints Set of $10 \ldots \$ 11$.
Booklet Display Rack for WhY VEGAN? or Vegetarian LIving...free!

## VIDEOS

When available, video is possibly the most persuasive medium for convincing people to adopt a vegan diet for ethical reasons.
Meet Your Meat Explicit footage of factory farms and slaughterhouses. VHS; 12-minute segment, looped ten times for a 2-hour tabling edition... $\$ 5$.
a Cow at My Table Documentary with some graphic footage, but well interspersed with interviews. VHS; 81 minutes... $\$ 20$.

## BOOKS

animal Liberation Professor Peter Singer's best-selling book, which lays down an ethical foundation for animal protection... $\$ 10$.
Becoming Vegan Comprehensive book for adopting a healthy vegan diet, with the latest nutritional research; by Brenda Davis, R.D. \& Vesanto Melina, M.S., R.D.... $\$ 15$.
the Convenient Vegetarian Quick and easy meatless cooking, with a guide to setting up a vegan kitchen for maximum convenience; by Virginia Messina, R.D. \& Kate Schumann...\$11.
Vegan Vittles A wealth of innovative vegan recipes for "meats," "milks," "uncheeses," soups, quick breads, and desserts that are exciting, healthful, and simple to prepare; by Joanne Stepaniak... $\$ 11$.

Order at veganoutreach.org/catalog or send orders to Vegan Outreach, 211 Indian Drive, Pittsburgh, PA 15238. Please include $\$ 4.00$ for your first item, and $\$ 1.50$ for each subsequent item. (PA residents add 7\% sales tax.)

## Other recommendations...

## VEGAN ON-LINEIMAIL-ORDER CATALOGS

Pangea Shoes, clothing, bags, books, personal care, etc. 800.340.1200; veganstore.com
The Vegetarian Site 520-529.8691;
thevegetariansite.com
Vegan Mercantile veganmercantile.com
Vegan Essentials veganessentials.com

## CLASSIC COOKBOOKS

Available at veganstore.com and many bookstores:
Tofu Cookery by Louise Hagler
The Uncheese Cookbook by Joanne Stepaniak
the new farm Vegetarian Cookbook
edited by Louise Hagler and Dorothy R. Bates

## LEATHER ALTERNATIVES

Nonleather shoes, purses, etc. can be found in many mainstream stores, and most athletic shoe companies offer nonleather options. For more information, see vrg.org/nutshell/leather.htm.
 Safeway brand, Tom's of Maine).

For links to the above and other resources, please see veganoutreach.org/resources.

## For more information...

Please visit veganoutreach.org for further discussion on vegan-related issues and links to other web sites. Topics and links include photos and videos, campaigns, animal rescues, free-range farms, slaughterhouses, wool, leather, product testing, and the environment.

So, you think it's wrong to eat meat? It's not a question of being "right" or "wrong." If you do not want animals to suffer and be slaughtered, then you can stop supporting such practices by not buying animal products.

## Don't plants suffer, too?

 Of course plants can respond to stimuli in their environment. But there is no evidence that plants possess the sort of organized tissue required to perceive the stimulation as the subjective experience of pain.What about honey, and insects killed by pesticides or during harvest? People often define "vegan" as someone who does not use animal products. But it is not clear which organisms are considered animals. According to BIology (3 ${ }^{\text {rd }}$ edition, Campbell, 1993), "Constructing a good definition of animals is not as easy as it might first appear. There are exceptions to nearly every criterion for distinguishing an animal from other life forms."

If vegans are going to follow a technical or scientific definition of the word "animal," then sponges (Porifera) are included. They cannot feel pain or suffer any more than plants. So what would be the point of including sponges in a vegan definition of "animal"?

It is possible to compare the human brain to the brains of animals that are closely related to the animals from which humans have evolved. Because of similarities in brain structure, it is possible to conclude that cows, pigs, chickens, and other animals we raise to eat, most likely do feel pain and can suffer.

The evolutionary path of invertebrates (such as mollusks and insects) diverged from ours long before the evolution of fish, the oldest vertebrates. In fact, humans are more closely related to starfish than to squid and octopi, who have the largest brains of all the invertebrates. Since their nervous systems developed along a different path, it is hard to know if they have conscious, subjective experiences.

Insects (including bees) have brains. But their brains are not highly developed, and they may not be large enough to facilitate consciousness in order to have the subjective experience of suffering. So, is honey vegan? Our best answer is "We don't know." To be on the safe side, the best thing to do would be to avoid causing insects and other invertebrates harm whenever possible. For more discussion, see veganoutreach.org/insectcog.html.

Answers to Commonly Asked Questions regarding Veganism

Doesn't the Bible say it's okay to eat meat? The Bible does not say that we are required to eat animals. Just because the Bible doesn't explicitly forbid something doesn't make it right. For example:

When your brother is reduced to poverty and sells himself to you, you shall not use him to work for you as a slave....Such slaves as you have, male or female, shall come from the nations round about you; from them you may buy slaves. You may also buy the children of those who have settled and lodge with you and such of their family as are born in the land. These may become your property, and you may leave them to your sons after you; you may use them as slaves permanently.

LEVITICUS 25:39-46
There are plenty of devout Christians who are vegetarian or vegan. Most theologians would agree that a benevolent God is not going to send someone to hell for trying to be compassionate to animals. Therefore, the Bible cannot be used as an excuse for turning a blind eye to the cruelty and killing in animal agribusiness. Contact us for the booklet What WOULD JESUS EAT...TODAY? and/or visit christianveg.com for more information.

## What do you think about abortion?

Whatever our opinion on abortion, each one of us can reduce suffering by not buying meat, eggs, and dairy.

## What about free-range animal products?

The Associated Press reported on March 11, 1998:
Free-range chickens conjure up in some consumers' minds pictures of contented fowl strolling around the barnyard, but the truth is, all a chicken grower needs to do is give the birds some access to the outdoors. [W]hether the chickens decide to take a gambol or stay inside with hundreds or thousands of other birds, under government rules growers are free to label them free-range.
In general, birds raised on free-range farms are subjected to debeaking, and male chicks are still killed at egg producing facilities. Because animals raised on commercial free-range farms are still viewed as objects to be used for food, they are subject to abusive handling, transport, and slaughter. Like all animals used for food, they are slaughtered at a fraction of their normal life expectancies. For more information, see upc-online.org/freerange.html.

If we don't eat the animals, won't they overpopulate?
We don't kill and eat these animals to save them from dying a natural death. They are bred to live in factory farms and die in industrial slaughterhouses. This will stop when people stop buying meat, eggs, and dairy.

## Why should

 people sacrifice convenience for the sake of an animal? We claim to be moral beings who do not act merely to satisfy selfish impulses. We would not want to live in a society where people pursued their cravings with no limits, where the stronger could take advantage of the weaker if it were convenient to do so.
## Isn't veganism expensive?

There is nothing inherent to the vegan lifestyle that is more costly (beans and rice are less expensive than beef or pork; a bean burrito is less expensive than a Big Mac).

Why should I concern myself with animal suffering when there are so many people suffering in the world?
Peter Singer writes in Animal Liberation:
[PJain is pain, and the importance of preventing unnecessary pain and suffering does not diminish because the being that suffers is not a member of our species. What would we think of someone who said that "whites come first" and that therefore poverty in Africa does not pose as serious a problem as poverty in Europe?

Most reasonable people want to prevent war, racial inequality, poverty, and unemployment; the problem is that we have been trying to prevent these things for years, and now we have to admit that, for the most part, we don't really know how to do it. By comparison, the reduction of the suffering of nonhuman animals at the hands of humans will be relatively easy, once human beings set themselves to do it.

In any case, the idea that "humans come first" is more often used as an excuse for not doing anything about either human or nonhuman animals than as a genuine choice between incompatible alternatives. For the truth is that there is no incompatibility here...there is nothing to stop those who devote their time and energy to human problems from joining the boycott of the products of agribusiness cruelty....[W]hen non-vegetarians say that "human problems come first," I cannot help wondering what exactly it is that they are doing for human beings that compels them to continue to support the wasteful, ruthless exploitation of farm animals.


[^0]:    *Do not exceed the upper limit.

