If you aren't sure whether your intake is adequate, you may wish to take up to 300 milligrams of a vegan DHA or DHA-EPA blend per day.

CALCIUM is naturally widespread in the plant kingdom, and so our calcium needs can be met with whole

Omega-3 fatty acids		
Food, serving size	ALA (grams)	
Flax seed, whole, 2 tbsp	5.2	
Flax seed, ground, 2 tbsp	3.8	
Flax seed oil, 1 tsp	2.7	
Walnuts, 1 oz (1/4 cup)	2.6	
Hemp seed oil, 1 tsp	0.9	
Tofu, firm, 1/2 cup	0.7	
Canola oil, 1 tsp	0.5	
Greens (mixed), 2 cups	0.2	

plant foods (and, optionally, calcium-fortified foods). Adults need about 1000 milligrams per day, though the amount depends on one's stage in the lifecycle. We recommend choosing several calcium-rich foods in each food group each day. Plants rich with calcium include leafy green vegetables, beans, sesame seeds, figs, and almonds.



PROTEIN contributes to healthy muscles and bones, tissue repair, a healthy immune system, and more. Because 10-20% of calories in most plant foods (legumes, vegetables, and grains especially) are from protein, and humans need only about 10-15% of their calories from protein, requirements are easily met with a diet consisting of a variety of whole plant foods.

The RDA for protein is dependent upon a person's age and sex. Pregnancy, activity level, and health status also affect your needs. However, to get a general sense of what your daily protein intake should be in grams, take your weight in pounds and multiply it by 0.36. For example, a 150-pound (68-kilogram) adult should consume about 55 grams of protein per day.

Plant proteins

Despite a common myth, it is not necessary to "complement" plant proteins at mealtime. The human body stores amino acids, the building blocks of protein, so that complete proteins can be manufactured in the body over time.

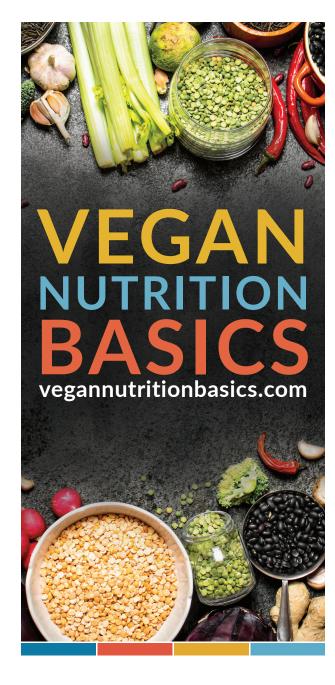
IRON is used by the body to carry oxygen from our lungs to the rest of the body, among other functions. Iron deficiency can lead to fatigue, cognitive impairment, and other health problems. Vegans are not generally considered at risk for iron deficiency. Some may fall into a group that is at risk, including pregnant women, infants, and children, who may need to adjust their intakes. To improve iron intake, avoid calcium supplements, coffee, and black and green tea while consuming foods containing iron, such as beans and spinach. Increase iron absorption at meals by preparing iron-rich foods with foods high in vitamin C, such as citrus fruits, bell peppers, and leafy green vegetables.

Iron	
Food, serving size	Iron (mg)
Soybeans, mature, 1/2 cup (cooked)	4.4
Lentils, 1/2 cup (cooked)	3.3
Spinach, 1/2 cup (cooked from fresh)	3.2
Amaranth, 1/2 cup (cooked)	2.6
Chickpeas, 1/2 cup (cooked)	2.4
Dark chocolate, 45%-59% cacao solids, 1 oz	2.3
Soybeans, green, 1/2 cup (cooked)	2.3
Pumpkin and squash seed kernels, 1 oz (roasted)	2.3
Navy beans, 1/2 cup (cooked)	2.2
Refried beans, canned, 1/2 cup	2.1
Cashew nuts, 1 oz (raw)	1.9

IODINE is important to one's metabolism and other vital bodily functions. Inadequate iodine intake causes insufficient thyroid hormone production, which can in turn cause a number of health problems. Iodine deficiency affects an estimated 2 billion people, a third of whom are children. There is insufficient research on iodine status in vegans, but they may be at greater risk for low iodine intake than the general population. There is generally very little iodine in food, but not much iodine is needed in one's diet, so the daily recommended amount is not difficult to get. The most potent food sources of iodine are sea vegetables. Iodized salt is an easy way to reach one's daily iodine requirement.

Visit **vegannutritionbasics.com** for the full version of this nutrition guide, including more details, a sample meal plan, answers to common questions, and citations. For a comprehensive introduction to the ethics and practicalities of veganism, read our full Vegan Starter Kit at **veganpamphlet.com**.

This information is provided for educational purposes only. It is not intended as a substitute for advice from a healthcare professional. Persons with medical conditions or who are taking medications should discuss diet and lifestyle changes with their healthcare professional.





internationalvegan.org

What is a vegan?

A vegan is someone with a lived commitment to not use or consume animals or animal products for any purpose, including food (e.g., dairy, honey, meat, bone-char refined sugar, eggs), clothing (e.g., silk, leather, wool), and entertainment (e.g., animal racing, hunting). To learn more about veganism, visit **internationalvegan.org**.

What do vegans eat?

Like non-vegans, vegans eat soups, stir-fries, salads, and casseroles. They consume a variety of foods from around the globe, as well as plant-only versions of traditional favorites such as pizza, tacos, burritos, lasagna, burgers, chilis, pancakes, sandwiches, and desserts.

How healthy is a vegan diet?

The Academy of Nutrition and Dietetics states that, when appropriately planned, vegan diets are "healthful, nutritionally adequate, and may provide health benefits for the prevention and treatment of certain diseases. These diets are appropriate for all stages of the life cycle, including pregnancy, lactation, infancy, childhood, adolescence, older adulthood, and for athletes." Of course, as with any diet, a poorly planned vegan diet could be dangerous or unhealthy.

What is a healthy vegan diet?

A healthy vegan diet is made up of these four food groups: 1) legumes, nuts, and seeds; 2) grains; 3) vegetables; and 4) fruits. Because individual nutrient needs and energy requirements vary due to age, activity level, and one's state of health, this guide should only be considered a broad blueprint. For a personalized set of recommendations, consult a dietitian familiar with vegan nutrition.



LEGUMES, NUTS, AND SEEDS (4+ servings per day)

The legume-nut-seed group includes beans, split peas, lentils, nuts, seeds, and soy products. These nutrient-dense foods are packed with protein, fiber, minerals, B vitamins, protective antioxidants, and essential fatty acids. Sample serving sizes from this group include: 1/2 cup of cooked beans, 4 ounces of tofu or tempeh, 1 cup of soy milk, 1 ounce of nuts or seeds, or 2 tablespoons of nut or seed butter.

GRAINS (4-6+ servings per day)

Whole grains provide B vitamins, fiber, minerals, protein, and antioxidants. They are preferable to refined grains because the refining process removes the healthiest nutrients. Also, intact whole grains—such as brown rice, oats, wheat berries, millet, and quinoa—are superior to whole grain flours and puffed or flaked whole grains. A serving is 1 slice of bread, 1/2 cup of cooked grain, or 1 ounce of ready-to-eat cereal. This group is flexible with regard to servings per day. Vary your intake based on your individual energy needs.

VEGETABLES (4+ servings per day)

Eating a wide variety of colorful vegetables every day will ensure that you're getting an assortment of protective nutrients in your diet. A vegetable serving is 1/2 cup cooked, 1 cup raw, or 1/2 cup of juice. For most vegetables, particularly calcium-rich leafy greens, it's nearly impossible to eat "too much."

FRUITS (2+ servings per day)

Most fruits, especially citrus fruits and berries, are a great source of vitamin C. All fruits provide antioxidants. Choose whole fruits over juices to get the most benefit, particularly from fiber. A serving size is 1 medium piece, 1 cup sliced, 1/4 cup dried, or 1/2 cup of juice.

Concentrated fats, such as oils and oil-based spreads, do not fall under a food group. They are not required for optimal health, as essential fats are found naturally in whole foods like avocados, olives, nuts, and seeds, and for that reason there is no serving recommendation. However, a small amount of concentrated fats may be included in a healthful vegan diet. Choose oils and spreads that are minimally processed and limit your intake.

Important nutrients

Like non-vegans, vegans need to be mindful of consuming all the nutrients they need in order to be healthy. The following is a quick overview of seven key nutrients: vitamin B12, vitamin D, omega-3 fatty acids, calcium, protein, iron, and iodine. For a deeper exploration, visit **vegannutritionbasics.com**.

VITAMIN B12 is necessary for proper red blood cell formation, neurological function, and DNA synthesis. It is manufactured by certain types of bacteria found in nature. Because plants vary widely in their levels of this bacteria (and most of us favor our food scrubbed squeaky clean), we cannot rely on plant foods to meet our B12 needs. We can ensure our dietary needs are met by consuming supplements or fortified foods.

Our suggestion for teens and adults into their early sixties is to supplement with a vegan source of B12, either 100 micrograms (mcg) per day or 1000 mcg twice a week. Due to decreased absorption, people over 65 are advised to supplement with 500-1000 mcg daily, while we suggest toddlers get 10-20 mcg per day and pre-teens get about 20-40 mcg or so daily. If you prefer not to use supplements, consume multiple servings of a variety of vitamin B12-fortified food throughout the day.

VITAMIN D plays an important role in bone health and supports normal neuromuscular and immune function. Good vitamin D status is linked to a lowered risk of osteoporosis, certain cancers, and other chronic diseases. Getting enough of it is not as easy as we may think. The body's ability to produce vitamin D from sun exposure varies based on skin pigmentation, sunscreen, clothing, time of year, latitude, air pollution, and other factors, and the vitamin is found naturally in only a handful of foods. This is why all people—not just vegans—need to be mindful about vitamin D.

Recent research suggests that getting even 100% of the current Recommended Dietary Allowance (RDA) for vitamin D may be insufficient for many people. To ensure adequate vitamin D intake, take 1000-4000 International Units (IU) per day, depending upon your age and other individual needs. D2 (ergocalciferol) supplements are derived from non-animal sources, while D3 (cholecalciferol) is commonly derived from lanolin, a protective waxy substance secreted by sheep. Plant-based D3 has come to market recently, but if you can't find vegan D3, D2 is just fine for supplementing daily.

Your healthcare provider can offer supplement guidelines based on the results of a 25(OH)D (25-hydroxyvitamin D) blood test.

OMEGA-3 FATTY ACIDS. A proper balance of essential fats is important for optimal brain function, heart health, and infant/child development. Alpha-linolenic acid (ALA) is an omega-3 fatty acid that partly converts to DHA and EPA in the body. It is present in several plant foods, including flax products, hemp products, walnuts, and leafy green vegetables. Aim to consume 2 to 4 grams of ALA per day.