

**What about calcium?**

Calcium is naturally widespread in the plant kingdom, and so our calcium needs can be met with whole 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 from each group every day. Some of the richest plant sources of calcium are: leafy green vegetables, figs, almonds and other nuts, sesame and other seeds, beans, calcium-set tofu, fortified nondairy yogurt, fortified soy products, fortified breakfast cereals, and fortified fruit juice.

| FOOD/SERVING SIZE                        | Calcium (mg) |
|--|--------------|
| Calcium-set tofu, 1/2 cup                | 140-420      |
| Fortified soy milk, 1 cup                | 200-370      |
| Collard greens, 1 cup cooked             | 270-360      |
| Fortified orange juice                   | 300-350      |
| Soy yogurt, 1 cup                        | 150-350      |
| Amaranth, 1 cup (cooked)                 | 275          |
| Broccoli rabe/Rapini, 1/2 bunch (cooked) | 260          |
| Sesame seeds (unhulled), 2 Tbsp.         | 175          |
| Blackstrap molasses, 1 Tbsp.             | 80-170       |
| Navy beans, 1 cup (cooked)               | 160          |
| Bok choy, 1 cup (cooked)                 | 160          |
| Figs, 5 large (raw)                      | 110          |
| Almonds, 1 oz                            | 70           |

*Calcium content varies depending on variety, brand, and origin.*



**What about protein?**

Protein contributes to healthy muscles and bones, tissue repair, a healthy immune system, and more. Since 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. Note that it is not necessary to "complement" plant proteins at a meal; the body stores amino acids, the building blocks of protein, so that complete proteins can be manufactured from the diet over the course of the day.

The RDA for protein is age and gender dependent. Pregnancy, activity level, and health status also affect your needs. However, to get a general sense of what your daily protein intake is in grams, take your weight in pounds and multiply it by .36 (a 150 pound adult would want to consume about 55 grams of protein per day).

The following sample meal plan easily reaches that goal, at 77 grams of protein:

- Breakfast:**
- 1.5 cups oatmeal (9g) + cinnamon combined with 1 oz walnuts (4g)
  - 1 small banana (1g)
- Lunch:**
- 1.5 cups of three bean chili (16g)
  - 1 piece jalapeño cornbread with maple "butter" spread (2g)
  - 2 cups southwestern vegetable salad (4g)
- Dinner:**
- 2 cups stir fried sweet potato, onion, bok choy, and broccoli (5g)
  - 4 oz sesame orange baked tofu (7g)
  - 2 cups brown rice (9g)
- Snacks:**
- 2 tbsp peanut butter (8g) on whole grain crackers (3g) and fruit (1g)
  - 2 oz trail mix (8g)

**Don't I need some cholesterol?**

Though vegan diets are 100% cholesterol free, this is 100% fine. There is no Daily Recommended Intake for cholesterol because it is not an essential nutrient. The body (specifically the liver) manufactures all the cholesterol a person needs to be healthy.

**What about food allergies?**

There are numerous healthy grain alternatives for vegans with a wheat allergy or gluten intolerance. In fact, many grains are nutritionally superior to wheat, including quinoa and millet. Products that were once only available in wheat varieties (such as bread and crackers) are now available wheat- and gluten-free. A soy allergy is also workable; soybeans are just one food. Soy-based meat analogs can be replaced with nut- or wheat-based varieties (such as seitan). Nut allergies are usually isolated; few people are allergic to all nuts and seeds. Testing can determine which nuts and seeds are safe. Substitutions usually work well in recipes and in foods such as granola, trail mix, and nut/seed "butters."

**I tried a vegan diet and felt unhealthy. What did I do wrong?**

Sometimes when we make positive changes to our diet—such as eliminating animal products or replacing processed junk food with whole plant foods—we may encounter some temporary bodily complaints, such as cravings, fatigue, or digestive discomfort. These are not uncommon during a major dietary transition, especially if fiber intake increases dramatically in a short period of time. If symptoms continue more than 2-3 days, you may want to see a doctor to rule out coincidental health conditions.

Sometimes a well-intentioned change to eating vegan can backfire when the diet is not properly balanced. One common mistake when transitioning to a vegan diet is eating too few calories. Healthful vegan diets tend to be big on volume—your plate should be overflowing with fresh food, especially when you include lots of raw vegetables. If you continue eating the same volume of food as before, you might not get enough calories, leaving you tired, hungry, and irritable. Another common mistake is simply replacing meat with meat analogs, dairy products with soy alternatives, and regular sweets with vegan sweets; going heavy on these and light on the vegetables, fruits, and whole grains is not a healthy approach. To learn how to best reap the benefits of a healthful vegan diet, sign up for a vegan nutrition or cooking class, or pick up a reliable book on vegan nutrition such as *Becoming Vegan*, by Brenda Davis and Vesanto Melina.

**Too much of a good thing?**

Many vegans enjoy some soy products to mimic the flavors and textures of meat and dairy products. Is it possible to consume too much soy? Yes, it is. It's possible to eat too much of many kinds of foods. Eating too many processed soy products means that other foods are being displaced, which throws off a healthful balance of foods. A reasonable daily limit of processed soy products is 2 servings per day, but the healthiest soy products are the least processed and/or those that are fermented: edamame, miso, tempeh, tofu, and fortified soymilk made from whole organic soybeans.

**Disclaimer:**

The information in this guide is intended as a helpful overview but cannot cover all vegan nutrition topics. To make sure that your diet is meeting all the nutrients that your body and mind need, please consult a nutrition professional with expertise in vegan diets.

Designed by Mahmood Shahrin  
reno@veganweb.com



**Demystifying Vegan Nutrition**



[bostonvegan.org](http://bostonvegan.org)

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Produced in consultation with Dina Aronson, MS, RD.

**What is a vegan diet?**

A vegan diet is one that consists of only plant-derived foods, as vegans do not use or consume any animals or animal products, including flesh, eggs, and milk. Like non-vegans, vegans eat soups, stews, stir-fries, salads, and casseroles. They may consume a wide variety of international foods, as well as vegan versions of traditional favorites such as pizza, tacos, burritos, lasagna, burgers, barbecues, loaves, chili, pancakes, waffles, sandwiches, and desserts.

**What is a healthful vegan diet?**

A balanced 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 balanced vegan diet. Consult a dietitian familiar with vegan nutrition for a personalized set of recommendations.

**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: ½ cup cooked beans, 4 ounces of tofu or tempeh, 1 cup 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 nutritionally superior to whole grain flours and puffed or flaked whole grains. A serving is one slice of bread, ½ cup cooked grain, or 1 ounce of ready-to-eat cereal. This group is fairly 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 ½ cup cooked, 1 cup raw, or ½ cup vegetable 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 and fiber. Choose whole fruits over fruit juices to get the most benefit, particularly from dietary fiber. A serving size is one medium piece, 1 cup sliced fruit, ¼ cup dried, or ½ cup of juice.



**A few words about fats**  
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 these fats--a serving is 1 teaspoon--may be included in a healthful vegan diet. Choose oils and spreads that are minimally processed and limit your intake.



**How healthy is a vegan diet?**

According to the American Dietetic Association's 2009 Position Paper on Vegetarian Diets, vegan diets "are healthful, nutritionally adequate, and may provide health benefits in the prevention and treatment of certain diseases." A healthy vegan diet helps reduce your risk of heart disease, cancer, obesity, and diabetes.

**The scoop on some important nutrients**

Like non-vegans, vegans should be mindful of consuming all the nutrients they need in order to be healthy. Three nutrients that everyone ought to pay attention to are vitamin B12, vitamin D, and omega-3 fatty acids.

**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 and/or fortified foods. Our suggestion is to supplement with a vegan source of 2000 micrograms once a week or 10-100 micrograms a day (be advised that some B12 vitamins labelled as vegetarian come in a stomach base). Or, if you prefer not to use supplements, consume at least three servings of vitamin B12-fortified food per day (each supplying at least 20% of the Daily Value on the label), such as nondairy milks, breakfast cereals, meal replacement bars, beverage mixes, and Red Star Vegetarian Support Formula Nutritional Yeast (check labels to ensure B12 content).

**Vitamin D**, the "sunshine vitamin", is also a hormone; our skin manufactures it from the ultraviolet rays of the sun. It 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.

Vitamin D blood levels are an international public health concern. 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. The latest research suggest that getting even 100% of the current Recommended Dietary Allowance (RDA) for vitamin D may be insufficient for many people. To ensure ad-

equate vitamin D intake, take 1000-2000 International Units (IU) per day, depending upon your individual needs.

Regardless of whether you eat a vegan diet, you may want to test your vitamin D status at your next medical checkup. Schedule a 25(OH)D (25-hydroxyvitamin D) blood test, and your healthcare provider can offer supplement guidelines based on the results.

Supplemental vitamin D comes in two forms: D2 (ergocalciferol), usually synthetic or manufactured from yeast, and D3 (cholecalciferol), manufactured from lanolin (from sheep's wool).

**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, canola oil, walnuts, and leafy green vegetables. Aim to consume 2 to 4 grams of ALA per day:

| FOOD/SERVING SIZE         | ALA (grams) |
|---------------------------|-------------|
| Flaxseed oil, 1 Tbsp.     | 8.0         |
| Flaxseed, whole, 2 Tbsp.  | 5.2         |
| Flaxseed, ground, 2 Tbsp. | 3.8         |
| Hempseed oil, 1 Tbsp.     | 2.7         |
| Walnuts, 1 oz (1/4 cup)   | 2.6         |
| Canola oil, 1 Tbsp.       | 1.6         |
| Tofu, firm, ½ cup         | 0.7         |
| Greens (mixed), 2 cups    | 0.2         |

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

