## Vegetarian Protein Food Sources

## Overview and Recommendations

1. Getting enough protein. Protein is an essential nutrient used for maintaining muscles and bones, as well as supporting the immune system, among other things. It's a common misconception that it's difficult to get enough protein if you don't eat meat, but studies show that most vegetarians and vegans meet their protein needs. While it's somewhat easier to get adequate protein on a vegetarian diet, which includes high-quality sources such as milk, cheese, cottage cheese, and eggs, it is still possible to consume an adequate intake of protein on a vegan diet.
2. An excellent protein package. Many plant proteins, including beans, lentils, and soy all come packed with other beneficial nutrients like fiber, vitamins, minerals, healthy fat, and phytochemicals, and little of the "bad stuff," like saturated fat, sodium and cholesterol.
3. Complementary proteins are a thing of the past. It was once thought that plant proteins-typically providing a lower percentage of at least one amino acid-needed to be "combined," by mixing grains and legumes in order to make a "complete" protein. However, now we know that the body creates a pool of the various essential amino acids, so it's not critical to combine them all in one meal.
4. Vegans may require a slightly more protein, due to the slight decrease in digestibility in plant proteins. Vegans can obtain protein in a variety of plant foods, including legumes, soy foods, whole grains, nuts, seeds, and even vegetables. These estimates may vary, but studies show that a level of 1.0 to $1.1 \mathrm{~g} / \mathrm{kg}$ of protein may be an appropriate level to compensate for digestibility. In addition, new research suggests that older adults (over 60 years of age) may benefit, in terms of optimal muscle and bone mass, from slightly higher intakes of protein than is currently recommended in the Recommended Dietary Allowance (RDA) to levels of about 1.0 to $1.2 \mathrm{~g} / \mathrm{kg} / \mathrm{day}$.

## Tips to Meet Your Needs

1. Include a protein source at each meal and snack. Balance each meal with a good source of protein.

Breakfast: Combine whole grains, nuts and seeds; or sauté beans, tofu, and vegetables.
Lunch: Build a sandwich with whole grain bread, nut butter or tahini, baked tofu or tempeh, and veggies. Add proteinrich soups, such as bean, pea or lentil; and include protein sources in salads, such as tofu, beans, nuts, and seeds.

Dinner: Simmer legumes and serve them with whole grains or whole grain bread, and vegetables. Or stir-fry tofu, seitan or tempeh with vegetables and grains.

Snack: Pour protein-rich, plant-based milk in your coffee and cereal. Whip up a smoothie with protein-rich soymilk, hemp seeds, flax seeds, and fruit. Snack on a handful of nuts or seeds.
2. Vegetarian add-ons. If you're a vegetarian, you should still power up on plant proteins, but you also can add 2 to 3 servings of dairy foods every day, and a few egg servings each week.
3. Read food labels. Make sure your food choices are rich in nutrients, including protein. Look for protein in plant-based yogurts and milks, cereals, breads, and snack foods.

## How Much Protein Do You Need Every Day?

The overall protein recommendations for vegetarians and vegans should match those established for the general public: $\mathbf{0 . 8} \mathbf{~ g r a m s ~ p e r ~ k i l o g r a m ~ o f ~ b o d y ~ w e i g h t ~ p e r ~ d a y . ~ V e g a n s ~ m a y ~ r e q u i r e ~}$ a slightly higher protein intake, due to the slight decrease in digestibility in plant proteins. These estimates may vary, but studies show that a level of 1.0 to $1.1 \mathrm{~g} / \mathrm{kg}$ of protein may be an appropriate level to compensate for digestibility.

EXAMPLE \#1: 135 lb Female
135 lb divided by $2.2 \mathrm{~kg} / \mathrm{lb}=61.36 \mathrm{~kg}$ $61.36 \mathrm{~kg} \times 0.8 \mathrm{~g} / \mathrm{kg}=49$ grams of protein

EXAMPLE \#2: 175 lb Male
175 lb divided by $2.2 \mathrm{~kg} / \mathrm{lb}=79.54 \mathrm{~kg}$ $79.54 \mathrm{~kg} \times 0.8 \mathrm{~g} / \mathrm{kg}=\mathbf{6 4}$ grams of protein

RDA, Dietary Reference Intakes, Food and Nutrition Board, Institute of Medicine, National Academies

Vegan Protein Food Sources

| Food | Serving | Protein (g) |
| :---: | :---: | :---: |
| Seitan, strips | 1/3 cup | 21 |
| Soybeans, cooked | $1 / 2$ cup | 11 |
| Tofu, regular, with added calcium | $1 / 2$ cup (4 ounces) | 10 * |
| Hemp seeds, shelled | 1 ounce (3 tablespoons) | 9 |
| Lentils, cooked | $1 / 2$ cup | 9 |
| Peanut butter | 2 tablespoons | 8 |
| Black beans, cooked | 1/2 cup | 8 |
| White beans, cooked | $1 / 2$ cup | 8 |
| Chickpeas, cooked | $1 / 2$ cup | 8 |
| Split peas, cooked | $1 / 2$ cup | 8 |
| Pinto beans, cooked | $1 / 2$ cup | 8 |
| Kidney beans, cooked | $1 / 2$ cup | 8 |
| Black-eyed peas, cooked | $1 / 2$ cup | 7 |
| Fava beans, cooked | $1 / 2$ cup | 7 |
| Peanuts | 1 ounce (28 "nuts") | 7 |
| Pumpkin seeds (pepitas), hulled | 1 ounce (3 tablespoons) | 7 |


| Food | Serving | Protein (g) |
| :--- | :---: | :---: |
| Pistachios | 1 ounce (3 $1 / 2$ tablespoons) | 6 |
| Almonds | 1 ounce (23 nuts) | 6 |
| Sesame seeds | 1 ounce (3 tablespoons) | 5 |
| Sunflower seeds, hulled | 1 ounce (3½ tablespoon) | 5 |
| Flaxseeds | 1 ounce (3 tablespoons) | 5 |
| Soy Yogurt | 170 gram | 5 |
| Hazelnuts | 1 ounce (14 halves) | 4 |
| Walnuts | 1 ounce (6-8 nuts) | 4 |
| Brazil nuts | 1 ounce (18 nuts) | 4 |
| Cashews | 1 ounce (2 $1 / 2$ tablespoons) | 4 |
| Chia seeds | 1 ounce (3 tablespoons) | 4 |
| Pine nuts | 1 ounce (19 halves) | 4 |
| Pecans | 1 ounce (10-12 nuts) | 3 |
| Macadamia nuts |  | 2 |

## Vegetarian Protein Food Sources

| Greek yogurt, plain, nonfat | 6 fluid ounces | $18^{*}$ |
| :--- | :---: | :---: |
| Cottage cheese | $1 / 2$ cup | 14 |
| Yogurt, plain, nonfat | 8 fluid ounces | $11^{*}$ |
| Milk, lowfat | 1 cup | 8 |
| Cheese, cheddar | 1 ounce | 7 |
| Egg | 1 medium | 6 |

*May vary depending on product
All nutritional information from USDA National Nutrient Database for Standard Reference or food manufacturer labeling.
Courtesy of Sharon Palmer, RD, The Plant-Powered Dietitian ${ }^{\text {TM }}$

