Plant-Based Protein Guide

What is Protein?

Protein is a nutrient that is made up of amino acids which are the building blocks for muscles, bones, skin, and hair. Amino acids also play a role in the creation of other important substances such as hormones and enzymes.

How Much Protein Do I need?

The daily protein recommendation for a healthy person is: 0.4 grams per pound of body weight. For example, if you weigh 185 pounds, you would need about 74 grams of protein a day (i.e. 185 x .4 = 74). Older adults and vegans may benefit from slightly more protein, about 0.5 grams per pound of body weight.

What foods contain protein?

- *Animal Protein:* meat, fish, poultry, eggs, dairy (milk, cheese, yogurt, buttermilk, cottage cheese, kefir)
- *Plant Protein*: legumes (beans, peas, lentils), nuts, seeds, whole grains, soy foods (tofu, tempeh, soymilk), seitan

Complete vs Incomplete Protein

- Protein is made of 20 amino acids.
- Essential Amino Acids*:* Nine are considered "essential" because the body cannot make them. They must come from food.
- Non-Essential Amino Acids*:* Eleven are "non-essential" because the body can make these amino acids.
- A "complete protein" is a good source of all 9 essential amino acids. Animal foods, soy, quinoa, and hempseed are complete protein sources.
- It is not necessary to combine different plant proteins like grains and legumes at a meal to make a "complete" protein. The liver can store amino acids long enough that you do not need to combine different plant protein foods in one meal.

Benefits of Plant Protein

- Plant sources of protein are low in fat (especially saturated fat) and cholesterol free. They provide fiber, vitamins, minerals, healthy fats, and antioxidants. Fiber is an important nutrient for gut health.
- Replacing red meat and processed meat with plant-based protein lowers your risk for many chronic diseases like heart disease, diabetes, kidney disease, dementia, and some cancers.

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Sources of Plant-Based Protein

Food Item	Amount	Protein (grams)
Tempeh	1 cup	34
Soybeans, cooked	1 cup	31
Seitan	3 ounces	21
Lentils, cooked	1 cup	18
Black Beans, cooked	1 cup	15
Kidney Beans, cooked	1 cup	15
Chickpeas, cooked	1 cup	15
Pinto Beans, cooked	1 cup	15
Lima Beans, cooked	1 cup	15
Veggie Burger	1 patty	15
Black-eyed Peas, cooked	1 cup	13
Veggie Baked Beans	1 cup	12
Tofu, extra firm	4 ounces	12
Textured Vegetable Protein (TVP), cooked	1/2 cup	12
Bagel	1 med (3.5 oz)	11
Tofu, regular	4 ounces	10
Veggie Dog	1 link	10
Peas, cooked	1 cup	9
Quinoa, cooked	1 cup	8
Peanut butter	2 Tablespoons	8
Almonds	1/4 cup	8
Whole Wheat Bread	2 slices	8
Soymilk, commercial, plain	1 cup	7
Spaghetti, cooked	1 cup	7
Almond Butter	2 Tablespoons	7
Soy yogurt, plain	8 ounces	6
Oatmeal, cooked	1 cup	6
Sunflower Seeds	1/4 cup	6
Chia Seeds	2 tablespoons	6
Spinach, cooked	1 cup	5
Broccoli, cooked	1 cup	5

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Here are some tips for adding more plant-based protein foods to your meals:

Legumes (Beans, Lentils, Peas, Soybeans):

- Add beans or lentils to soups, casseroles, pasta, tacos, or burritos.
- Add beans to a salad instead of chicken.
- Add hummus (made from pureed chickpeas) to sandwiches or serve as a snack with fresh vegetables.

Tofu (Coagulated soymilk, pressed into solid blocks):

- Blend silken tofu and soymilk with fruit for a smoothie.
- Cut firm tofu into cubes and use in stir fry instead of chicken or beef.
- Add firm tofu to soups.
- Marinate tofu and grill on a skewer with vegetables.
- Use pureed tofu for part of the mayonnaise, sour cream, cream cheese, or ricotta cheese called for in recipes.

Tempeh (Fermented soybeans pressed into a patty):

- Thinly slice or cube and pan fry to add to wraps, sandwiches, stir fry, and more.
- Crumble and use as a replacement for ground meat in tacos or pasta sauce.

Seitan (Made from gluten, the protein in wheat):

- Thinly slice or cube and add to stir fry, chili, tacos, and more.
- Use ground seitan in place of ground meat in recipes.

Nuts and Nut Butters:

- Spread on sandwiches, toast, muffins, crackers, waffles, and pancakes.
- Use as a dip for raw vegetables or fruit.
- Blend into a smoothie with fruit and soymilk.
- Mix into hot cereal.
- Create your own trail mix with mixed nuts and dried fruit.