

EAT PROTEIN



YOUR CHALLENGE: Eat healthy proteins at every meal (breakfast, lunch, and dinner). Report the completion of your goal at www.dmba.com with a simple “yes” or “no.”

PROTEIN IS ESSENTIAL

Your body needs protein to build, repair, and maintain itself. For instance, your body uses protein to make hemoglobin—the blood cells that carry oxygen throughout your body. Your muscles, bones, skin, heart, and other organs are made up mostly of proteins. Your immune system and hormones also need protein to function.

Eating more protein-rich foods and healthy fats in place of refined carbohydrates (e.g., white bread, refined cereals, sugar, white rice, white potatoes) improves triglyceride and HDL levels, which may reduce your chances of having a heart attack, stroke, or other form of cardiovascular disease. In the Nurses’ Health Study, women who ate less refined carbohydrates (a lower glycemic diet) cut the risk of disease by 51 percent compared to women who ate high glycemic meals. Eating this way may also make you feel full longer so you don’t snack or overeat.

On the other hand, not eating enough protein may cause loss of muscle mass, decreased immunity, and a weakening of the heart and respiratory system. It takes about eight grams of protein daily for every 20 pounds of body weight to keep your body tissues from slowly breaking down. If you want to build muscle, it may take 10-12 grams of protein for every 20 pounds of body weight.

MUSCLES NEED PROTEIN

You may be a young healthy athlete interested in building muscle. Or, you may be a retired person who wants adequate muscle strength to climb stairs, lift a grocery bag at the store, and maintain independent living. In either case, there are two key principles for maintaining good muscle strength:

1. Muscles need to be challenged to grow stronger. The best way to build strength is by weight lifting, working out on resistance machines, or using your own body weight as in doing push-ups and curl-ups.
2. Muscles need adequate protein. Research shows that muscles are most efficient at using protein and rebuilding muscle tissue immediately after strength-building exercise. A recent study found that drinking two glasses of milk or milk alternative immediately after a workout raised the amino acids in the blood to a level that maximized protein uptake for muscle building. Both the strength exercises and the increased amino acids in the blood stimulate muscle growth. Getting protein into the system at the right time resulted in the best rate of muscle growth.

HOW MUCH PROTEIN?

The Institute of Medicine recommends that adults get 10-35 percent of their daily calories from protein. To achieve this goal, aim to eat protein-rich food at every meal. Athletes in training need 20-40 percent more protein per day to repair and build muscle after a hard workout. In addition, anyone trying to build muscle should eat protein-rich food within an hour or so of strength training. Most Americans get adequate protein but need to make leaner (less saturated fat) choices. It is not difficult to do if you mostly eat unrefined foods and at least three foods high in protein daily.

PROTEIN BASICS

Protein foods such as legumes, nuts, and whole grain/legume combinations also have fiber, healthy fats, and other nutrients. On the other hand, protein foods such as steaks, processed luncheon meats, and whole milk, come “packaged” with unhealthy fats. If you eat animal products, fish and skinless poultry are your best choices. If you choose to eat beef, pork, or lamb, do so only occasionally. And when you do, select the leanest cuts.



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ANIMAL-BASED PROTEINS

The U.S. Department of Agriculture recommends the following actions for choosing healthier animal proteins:

Start with a lean choice

- Buy skinless chicken parts, or take off the skin before cooking.
- Boneless, skinless chicken breasts and turkey cutlets are the leanest poultry choices.
- For sandwiches, choose lean turkey slices instead of high-fat luncheon meats, such as bologna or salami.
- Eat more fish, which has a healthy fat and protects against heart disease.

Keep it lean

- Trim away all visible fat from meats and poultry before cooking.
- Broil, grill, roast, poach, or boil meat, poultry, or fish. No frying!
- Drain off any fat that appears during cooking.
- Skip or limit the breading on meat, poultry, or fish. Breading adds fat and calories. It will also cause the food to soak up more fat during frying.
- Prepare dry beans and peas without added fats.
- Choose and prepare foods without high-fat sauces or gravies.

PLANT-BASED PROTEINS

Plant-based proteins are healthier alternatives to red meat and poultry. Getting adequate protein in a plant-based diet is not difficult to do if you follow three important principles:

1. Eat a wide variety of unrefined, whole foods.
2. Plan for at least one serving of healthy protein at every meal.
3. Eat enough to maintain a healthy weight.

Whole foods include oats, whole-grain breads,

brown rice, nuts, seeds, nut butters, fruits, vegetables, peas, beans, lentils, garbanzo beans, tofu, and soymilk fortified with calcium and vitamin B-12. Eat a variety of protein sources. Plant proteins are cholesterol-free and low in saturated fat. They are also high in protein, fiber, and other key nutrients, such as folic acid.

COMBINING PROTEINS

When you eat whole foods throughout the day, the proteins in the food complement each other. This means that eating a variety of plant-based protein foods provides you with the same high-quality protein found in meat.

DAIRY AND EGGS

If you eat cheese and dairy, make sure it's lower fat. Regular cheese omelets and vegetarian pizzas are good protein sources, but they can also be high in saturated fat and cholesterol.

Lacto-vegetarians include dairy in their diet. For them, other healthy protein sources are low-fat and nonfat milk, yogurt, and cottage cheese and other low-fat cheese.

Lacto-ovo-vegetarians include eggs (or egg replacers, such as Egg Beaters®) as well as dairy in their diet.



BEANS, BEANS, BEANS

Food stores that specialize in vegetarian options offer a variety of meat-alternate entrees. These foods, as well as all legumes and soy products, are high in protein.

As much as possible, choose dry beans or peas as a main dish or part of a meal. Some choices are:

- Meatless chili with kidney or pinto beans
- Split pea, lentil, minestrone, or white bean soups
- Stir-fried tofu
- Baked beans
- Black-bean enchiladas
- Garbanzo or kidney beans on a salad
- Rice and beans
- Meatless burgers
- Hummus (chickpeas) spread on pita bread

NUTS AND SEEDS

Use nuts and seeds to replace meat or poultry, not in addition to them. Eat them as a snack, in salads, or in main dishes.

- Use pesto sauce—made with pine nuts—on top of pasta.
- Add slivered almonds to steamed vegetables.

- Instead of meat, add toasted peanuts or cashews to a vegetable stir fry.
- Sprinkle a few nuts on top of low-fat ice cream or frozen yogurt.
- In place of cheese or meat, add walnuts or pecans to a green salad.

Here's an example of how easy it is to get adequate protein in a vegetarian diet:

Breakfast

Tofu scrambled with onions, peppers, and spinach, 5.5 oz.; one slice whole-grain toast with two tablespoons peanut butter; one cup orange juice

Lunch

Gardenburger® or Boca Burger with lettuce and tomato on whole-grain bun; two tablespoons hummus; apple; one cup skim milk or milk alternative

Dinner

Bowl of lentils; one cup brown rice baked with soy protein; one cup squash; ½ cup fruit salad with 23 almonds for dessert

Total protein for the day: 96.7 grams

Fat 56.9g, saturated fat 9.6g, cholesterol 30mg, fiber 45.8g



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Protein Content of Common Foods

| Serving | Food | Protein (grams) | Fat (grams) | Saturated fat (grams) | Cholesterol (mg) | Fiber (grams) |
|-------------------|-------------------------------------|-----------------|-------------|-----------------------|------------------|---------------|
| 1 cup | Cottage cheese, low-fat, 1% | 28.0 | 2.3 | 1.5 | 9 | 0 |
| 3 oz. | Chicken breast skinless, roasted | 26.3 | 3.0 | 0.9 | 72 | 0 |
| 3 oz. | Turkey skinless, roasted | 25.4 | 2.7 | 0.9 | 59 | 0 |
| 3 oz. | Chicken leg, skinless, roasted | 22.9 | 7.1 | 1.9 | 80 | 0 |
| 3 oz. | Top sirloin trimmed to 1/8 inch fat | 22.8 | 13.4 | 5.3 | 71 | 0 |
| 3 oz. | Halibut, baked | 22.6 | 2.5 | 0.4 | 35 | 0 |
| 3 oz. | Tuna light canned in water | 21.7 | 0.7 | 0.2 | 26 | 0 |
| 3 oz. | Wild Coho salmon, baked | 19.9 | 3.7 | 0.9 | 47 | 0 |
| 4 oz. | Tofu firm | 19.9 | 11.0 | 1.5 | 0 | 2.9 |
| 3 oz. | Shrimp, steamed | 17.7 | 0.9 | 0.2 | 166 | 0 |
| 1 cup | Lentils, cooked | 17.9 | 0.8 | 0.1 | 0 | 15.6 |
| 1 cup | Pinto beans, cooked | 15.4 | 1.1 | 0.2 | 0 | 15.4 |
| 1 cup | Black beans, cooked | 15.2 | 0.9 | 0.2 | 0 | 15.0 |
| 2 oz. | Cheese low-fat cheddar, Colby | 13.8 | 3.9 | 2.4 | 12 | 0 |
| 1 patty | Boca Burger original | 13.0 | 0.5 | 0 | 0 | 4.0 |
| 1/2 cup | Sunflower seeds | 12.3 | 31.8 | 3.3 | 0 | 7.1 |
| 1 cup | Yogurt low-fat | 11.0 | 3.2 | 2.0 | 14 | 0 |
| 1/2 cup | Hummus | 9.8 | 12.0 | 1.7 | 0 | 7.5 |
| 1 patty | Gardenburger® original | 9.0 | 4.0 | 2.0 | 30 | 4.0 |
| 1 cup | Milk low-fat, 1% | 8.2 | 2.4 | 1.5 | 12 | 0 |
| 2 oz. | Feta cheese | 8.1 | 12.1 | 8.5 | 50 | 0 |
| 2 tbsp | Peanut butter, smooth | 8.0 | 16.1 | 3.4 | 0 | 1.9 |
| 1 large | Egg, hard-boiled | 6.3 | 5.3 | 1.6 | 212 | 0 |
| 1 oz (23 nuts) | Almonds | 6.0 | 14.0 | 1.1 | 0 | 3.5 |
| 1 cup | Oatmeal, cooked | 5.9 | 3.6 | 0.7 | 0 | 4.0 |
| 1 cup | Brown rice, cooked | 4.5 | 1.6 | 0.3 | 0 | 3.5 |
| 1 oz. (14 halves) | Walnuts | 4.3 | 18.5 | 1.7 | 0 | 1.9 |

WANT MORE INFORMATION?

- American Heart Association <https://www.heart.org/en/healthy-living>
- WebMD <https://www.webmd.com/living-healthy>
- CDC Healthy Living <https://www.cdc.gov/healthyliving/index.html>

SOURCES:

- USDA National Nutrient Database, *Standard Reference Release SR20*
- Harvard School of Public Health, *Protein: Moving Closer to Center Stage*
- Wilkinson SB et al, *Milk and Soy Proteins after Weight Lifting*, American Journal of Clinical Nutrition, 2007, 85:1031-40

Note: If you can't complete this challenge because of a medical condition, let us know and we'll come up with an alternative for you.



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