

Protein: Healthy Bodies on the Go

For Young Adults

Why protein?

Protein is an important building block of bones and muscles. More muscle mass—built through the combination of exercise and eating protein—not only makes you strong, but it also increases metabolism and helps prevent weight gain. People typically think of meat, beans, eggs and nuts as sources of protein, but dairy foods are also excellent choices. Milk, cheese and yogurt contain high-quality protein as well as calcium, vitamins A and D, potassium, phosphorus and magnesium.



How much protein?

Aim for 20 to 30 grams of protein per meal plus smaller amounts of protein at snacks. Most adults need at least 50 grams of protein throughout the day. However, research shows that more (75 to 100 grams) may be beneficial. You can reach this amount by following the Dietary Guidelines for Americans, which include 3 daily servings of low-fat or fat-free milk, cheese or yogurt.¹

What about lactose intolerance?

If you cannot digest lactose, the natural sugar in milk, you can still enjoy dairy!

- Try *lactose-free milk*. It's simply regular milk without lactose.
- *Yogurt* contains helpful bacteria that break down lactose, making it easy to digest.
- *Hard cheeses* such as Cheddar or Swiss contain little or no lactose.

Research indicates that eating a higher protein diet can help with:^{1,2,3,4,5}

- **More energy.** Dividing protein among all meals and snacks helps keep blood sugar even, and that keeps energy levels more stable.
- **Healthy weight.** Protein foods help manage healthy weight by preventing hunger, making you feel fuller longer.
- **Strong bodies.** After about age 30, it's natural to lose both muscle and bone strength. Protein is an important building block for repairing muscles and keeping bones strong.

Do all milks contain the same amount of protein?

Milk contains 8 grams of high-quality protein per cup regardless of fat content. The amount of protein in milk alternatives such as almond or rice varies widely depending on the ingredients added in processing, so read the labels to compare.

Which foods contain protein?

16-22 grams per serving	11-15 grams per serving	6-10 grams per serving	2-5 grams per serving
Beef, chicken, pork, turkey (3 ounces)	Fish and shellfish (3 ounces)	Milk (1 cup) or yogurt (6-ounce container)	Brown rice (1 cup cooked)
Deli meat (3 ounces)	Beans and lentils (¼ cup)	Cheese (1½ ounces)	Oatmeal (1 cup cooked)
Greek yogurt (6-ounce container)	2 eggs	Nuts, small handful (¼ cup)	Broccoli, chopped (1 cup cooked)
Meal replacement bar with whey protein	Cottage cheese (½ cup)	Tofu (½ cup)	Whole-grain bread (1 slice)

When is the best time of day to eat protein?

To optimize your body's use of protein, eat protein-rich foods at all meals and snacks. At your morning meal, add a high-quality protein source such as yogurt, lean deli meat or cheese.

1. <http://www.health.gov/dietaryguidelines/2010.asp>
2. Beelen M, et al. *J. Phys. Act. Health.* 2010;20:515-532.
3. Wolfe RR. *Brit. J. Nutr.* 2012;108:S88-93.
4. Clifton P. *Brit. J. Nutr.* 2012;108:S122-129.
5. Bendtsen LQ, et al. *Adv. Nutr.* 2013;4:418-438.



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Protein Prep Tricks

(One serving each)

Breakfast to go

Overnight Oats – 1 cup milk (or yogurt) + ½ cup dry old-fashioned (or quick) oats. Place in to-go mug or glass jar and refrigerate overnight. Eat cold or heat in microwave.

Microwave Scramble – 1 egg (beaten) + 2 tablespoons milk. Place in cooking-spray-coated coffee cup and microwave one minute; stir. Microwave another minute. Top with shredded cheese + salsa.

Lunch box surprises

Salsa Mac – 1 cup cooked whole-wheat macaroni pasta + ½ can diced tomatoes with green chilies + ½ can rinsed black beans + ¼ cup shredded low-fat pepper jack cheese. Mix and serve.

Herbed Tuna Salad – ½ to 1 can tuna + plain Greek yogurt + fresh cilantro or mint over lettuce + cucumbers + shredded carrots.

Dinner

Personal Pizza – ¼ whole-wheat refrigerated fresh pizza dough (from supermarket deli) + tomato sauce + chopped olives + tomato slices + shredded zucchini + shredded mozzarella cheese. Roll out dough and let rest 10 minutes. Add toppings and bake at 450° for 10 to 15 minutes.

Exercise recovery snack

Chocolate Banana Mocha – 1 cup low-fat milk + 1 tablespoon chocolate syrup (or cocoa powder) + ½ frozen banana + ½ teaspoon instant coffee. Blend in blender. Add ice; blend again.



Heat and Eat Power Breakfast Pockets

Make these the night before and pack in a nifty heat-and-eat bag; then just pop the whole pack in the microwave for 20 seconds in the morning.

3 servings

6 slices reduced-sodium deli turkey (or ham)
4 slices (4 ounces total) Cheddar cheese, divided
1 ½ cups packed, chopped spinach, divided
4 large eggs
¼ teaspoon pepper
Dash of salt
1 tablespoon low-fat milk



1. Preheat oven to 350°. Heavily coat 6 muffin cups in a muffin/cupcake pan with non-stick cooking spray and place one piece of turkey into each cup to line the cup and form a small bowl; set aside. Break (or cut) one slice of Cheddar cheese into small pieces; set aside.
2. Coat a small non-stick skillet with non-stick cooking spray; heat pan over medium heat and add one cup spinach. Cook for 2 to 3 minutes stirring occasionally. Add one tablespoon water and cook for 2 minutes until spinach is wilted. Spoon into a medium bowl.
3. Add eggs, small pieces of cheese, pepper, salt and milk to wilted spinach. Divide among turkey-lined muffin cups using a small measuring cup or scooper.
4. Bake for 20 to 22 minutes or until set. Cool 5 minutes before removing from muffin cups. If not serving immediately, refrigerate.
5. To assemble a one-serving heat-and-eat bag that can be taken to work, simply fold a 12-inch by 8-inch piece of wax paper (or parchment paper) into a bag. (Fold paper almost in half; then fold the open edges a few times tightly to create closure.) Place a few leaves of remaining spinach, one slice cheese and 2 turkey-egg cups in heat-and-eat bag; then place entire bag into a plastic zip-top bag. At work, remove heat-and-eat bag from plastic bag and microwave entire bag 15 to 30 seconds to warm and slightly melt cheese.

Notes:

Turkey-egg cups can be stored in the refrigerator for 3 days; they also freeze well. To avoid extra cleanup of baked-on egg, heavily spray sides and bottoms of muffin cups and try to keep egg mixture inside turkey “cup liner” as much as possible. Egg cups make a great brunch item since they can be made the night before.

Nutritional analysis, per serving: 314 calories; 27 g protein; 20 g fat; 320 mg calcium; 755 mg sodium

Goopy Peanut Butter and Jelly Mug Cake

Packed with protein, this single-serve cake bakes in less than 2 minutes in the microwave.

One serving

2 tablespoons white whole-wheat flour (or all-purpose flour)
1 tablespoon vanilla-flavored whey protein powder (See Note below)
Dash of salt
2 teaspoons honey
3 tablespoons reduced-fat (2%) milk
¼ teaspoon canola oil
1 tablespoon peanut butter

1. Spray the inside of a microwave-safe mug with non-stick cooking spray; set aside.
2. In a small bowl, mix together flour, protein powder and salt with a fork; mix in honey, milk and oil.
3. Pour batter into prepared mug. Drop the tablespoon of peanut butter into the center of batter.
4. Cook in microwave on HIGH power for 1 ½ minutes. Top with jam. Serve immediately as cake hardens as it cools.

Note:

Plain, chocolate or other flavors of protein powder may be substituted for vanilla—but will slightly affect cake flavor.

Nutritional analysis, per serving: 276 calories; 8 g protein; 11 g fat; 125 mg calcium; 338 mg sodium

