



# Nourish Your Muscles



The maintenance of our muscles plays a major role in healthy aging. Loss of muscle robs us of our independence so it's important to take care of muscle health before we start to lose ability to take care of ourselves. The proteins in our bodies continuously are being broken down and replaced. Eating enough calories is critical because weight loss is often accompanied by loss of muscle, especially with sedentary lifestyle. Fuel to keep moving should be primarily in the form of carbohydrate, followed by healthy fat and adequate protein.

## Test Your Knowledge

1. Our body needs protein for many reasons. Which of the following is/are functions of protein in the body?
  - a. Promoting a healthy immune system
  - b. Providing energy
  - c. Promoting wound healing
  - d. All of these are functions of protein
2. About how much protein does a 3-ounce serving of meat, poultry or fish contain?
  - a. 5 grams
  - b. 15 grams
  - c. 20 grams
  - d. 40 grams
3. What are the primary fuels for movement, exercise and other activities of daily living?
  - a. Protein and carbohydrate
  - b. Fat and protein
  - c. Fat and carbohydrate
  - d. Carbohydrate, fats and protein

Answers: 1. d; 2. c; 3. d

## Why is protein so important to your diet?

Protein is a building block for bones, muscle, skin and blood.

- Adequate amounts of protein help heal wounds faster.
- Adequate protein helps fight infection.
- Protein provides the body with energy.
- Protein helps maintain muscle mass.
- Protein foods provide B vitamins, iron, zinc and magnesium.

## 5 signs you are not getting enough protein.

- 1 You're tired when you shouldn't be.
- 2 You feel weak, and simple tasks may become difficult.
- 3 Your skin has become more fragile.
- 4 Recovering from an injury, illness or wound takes longer than expected.
- 5 You have swelling in your legs.

## How much protein do you need?

Our bodies can use protein best when it is consumed throughout the day. Studies completed with adults age 50 and older show that 25 to 30 grams of protein are needed with each of three meals. If you do not get enough dietary protein as part of a balanced eating pattern, your body may use the protein in your muscles to fuel activity. For very small or large individuals, another rule of thumb is ½ gram of protein per pound per day (divided by three meals).

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## How do you get 25 to 30 grams of protein as part of each meal?

- Eat breakfast! A breakfast that includes two slices of whole wheat toast, 8 ounce of fat-free milk, two scrambled eggs and fruit has about 24 grams of protein. Add peanut butter to take it to target.
- Enjoy a sandwich that includes lean poultry, salmon salad or tuna for lunch, along with a container of Greek yogurt and side salad.
- Most of us already get enough protein at dinner so don't go overboard. A 3-ounce serving of lean beef or pork, for example, which is about the size of the palm of your hand, will supply 20-22 grams of protein.
- If you feel like you are not on target to get enough protein throughout the day, add some protein-rich snacks such as reduced-fat cottage cheese, hummus (chickpea dip), mixed nuts or almonds, edamame, soy milk or jerky. These are easy snacks to keep on hand and to prepare.

### Remember:

- Dollar for dollar, whole foods are a better buy than supplements because whole foods contain a larger variety of nutrients and other needed ingredients such as antioxidants.
- No conclusive research shows that concentrated protein sources (such as protein powders) are more beneficial than whole-food sources.
- However, if you are in a hurry, a protein drink is an easy way to make sure you are getting enough protein. Evidence shows that whey-based protein drinks have the right kinds of amino acids to get the muscle-building machinery turning. Whey can also be found in a glass of low-fat milk or yogurt.



## Enjoy different kinds of protein throughout the day

- Eggs (6 grams protein/large egg)
- Meat, poultry and fish (about 21 grams protein/3-ounce piece – about the size of a deck of cards)
- Milk and milk products (8 grams protein/1 cup milk)
- Nuts and seeds (about 5 grams protein/1 ounce raw nuts – a small handful)
- Tofu (13 grams protein/½ cup tofu)
- Legumes, canned and rinsed beans and peas (8 grams protein/½ cup beans)

## Healthful Protein-rich Snack Ideas

- Try Greek yogurt, which contains 11 to 14 grams of protein, depending on the brand.
- Try hummus (chickpea dip) or a bean dip with whole-wheat crackers.
- Enjoy a handful of mixed nuts, which will give you about 5 grams of protein along with healthy fats that are good for your heart.

## Nourish Your Muscles Checklist

- Eat a healthful diet, including adequate protein and calories.
- Eat a variety of carbohydrates, including whole grains, fruits and vegetables. Beans, peas, lentils and low-fat dairy products also contain substantial carbohydrate and protein.
- Stay hydrated.
- Stay physically active each day, several times per day, to maintain muscle strength. Keep moving!

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## For more information about nutrition and fitness, visit these websites:

NDSU Extension: [www.ag.ndsu.edu/food](http://www.ag.ndsu.edu/food)

U.S. Department of Agriculture with a wide range of nutrition resources: [www.MyPlate.gov](http://www.MyPlate.gov)

National Institute on Aging: [www.nia.nih.gov](http://www.nia.nih.gov)

National Institute of Health: [www.nih.gov](http://www.nih.gov)