

## Older Americans need protein to keep muscles strong, study says

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Both animal and plant sources are important.

(HealthDay)—Older adults need a protein-rich diet to maintain muscle mass and strength, a new study suggests.

Protein should come from animal and plant sources, since each type of [protein](#) appears to play different roles in maintaining lean [muscle mass](#) and leg strength. Plant protein helps preserve [muscle strength](#), while animal protein is linked to muscle mass, the researchers said.

"With aging, there is loss of muscle mass and strength," said lead researcher Shivani Sahni, director of the nutrition program at the Hebrew Senior Life Institute for Aging Research in Boston.

She said that protein is the body's building block that produces muscle. "After 50, people start to lose muscle mass. Between 50 and 60, muscle

strength declines by about 1.5 percent a year. After 60, the loss can be 3 percent a year."

Losing muscle mass and strength affects the ability to move and do daily activities, Sahni said. In addition, loss of muscle can affect balance and increase the odds of falling, leading to broken bones and head injuries.

"Overall protein intake is important for maintaining muscle mass and muscle strength," she said. "You should have protein as part of every meal."

Findings from the study, funded by the U.S. National Institutes of Health, were published online recently in the *Journal of Nutrition*.

For the study, Sahni and her colleagues collected data on more than 2,600 men and women who took part in the Framingham Offspring Cohort study. Participants—average age 60—had their protein consumption, leg lean muscle mass and thigh muscle strength measured at various times between 1998 and 2001.

The researchers found that men needed nearly 3 ounces of protein a day to maintain muscle mass and strength, and women needed 2.6 ounces. Lean muscle mass was highest among those who ate the most total protein and the most [animal protein](#).

Plant protein—think nuts and beans—was not associated with lean mass in men or women, the researchers noted. But those who ate the most protein from plants had more strength in their thigh muscles, compared with those who ate the least [plant protein](#).

Plant protein may help preserve muscle strength in older adults because of its alkaline properties, or it may be a sign of the healthier diet of people who eat a lot of plant protein, the researchers said.

Samantha Heller, a senior clinical nutritionist at New York University Medical Center in New York City, agreed that the sources of protein matter.

"Many large studies suggest that those who eat diets high in animal foods have an increased rate of death and risk of diseases such as cancer, heart disease and diabetes, while plant-based diets reduce the risks of dying and chronic diseases," she said.

The diets of many older people lack an adequate balance of protein, carbohydrates and fat, Heller said.

"Research suggests that we may need more protein as we age," she said. There are many reasons why older adults may consume too little protein, from being less active or less hungry to poor dental health, lower income or limited access to food, she added.

Heller said that protein intake should be spread throughout the day and included with each meal.

Protein sources she recommends include: 6 ounces plain, nonfat Greek yogurt (0.6 ounces of protein); 8 ounces fat-free milk (0.2 ounces protein); one-half cup cooked beans (nearly 0.3 ounces), and 2 tablespoons of nut butter (0.2 ounces). A 3.5-ounce portion of roasted chicken breast provides almost 2 ounces of protein; 5 ounces of tofu deliver 0.4 ounces of protein, and two slices of whole wheat bread provide 0.2 ounces of protein, she said.

"A peanut butter and jelly sandwich on whole wheat bread with a glass of milk would contain just under an ounce of protein," Heller said.

In the United States, protein is usually listed in grams on labels. One ounce contains 28 grams.

While agreeing with the study's emphasis on [protein consumption](#), Heller said the researchers failed to mention a key component of strength: exercise.

"One aspect that does not seem to be considered in this study is exercise, which is what helps build muscle mass and strength and can help people maintain their mobility and independence as they age," Heller said.

Loss of strength is directly connected with reduction of muscle mass, she said. You can eat all the protein you want, but exercise is necessary to increase muscle strength, she explained.

**More information:** For more on dietary protein, visit the [Harvard School of Public Health](#).

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