

[IMAGE]

## Haste Doesn't Make Waste

With age, people experience a progressive loss of muscle mass and strength that can seriously reduce functional abilities. Weight training can be an important way to counteract this process. Proper diet, especially consuming protein after a workout, can also help to gain muscle size and strength. Does it matter when this protein is ingested, though?

A recent study in *The Journal of Physiology* determined the importance of when a protein supplement was taken after exercise in seniors. Thirteen 70- to 80-year-old men completed a resistance-training program consisting of three strength exercises (leg press, knee extension, and lat pulldown - a back exercise) done on fitness equipment, performed three times per week. Seven of the men took a protein supplement within five minutes of exercise, while the remaining six took the supplement two hours later.

After 12 weeks, leg muscle size, isokinetic strength (force against a nonmoving object), and overall lean body mass increased in the immediate-supplementation group only. Both groups increased the amount of weight used in their workouts - but the immediate-supplementation group increased their strength by a larger margin.

If you are advancing into your senior years, it's especially important that you maintain a regular workout to retain your ability to perform daily physical tasks. Regular resistance training or weightlifting can successfully prevent or slow muscle and tissue loss. Also, be sure to eat a protein supplement or high-protein food - poultry, fish, eggs, milk, beans - immediately after you work out. Protein is the building block your muscles require for repair and growth.

### *Reference:*

Esmarck B, Andersen JL, Olsen S, et al. Timing of postexercise protein intake is important for muscle hypertrophy with resistance training in elderly humans. *The Journal of Physiology* 2001;535, pp. 301-311.

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