

Version 1: Protein's Effect on Muscles

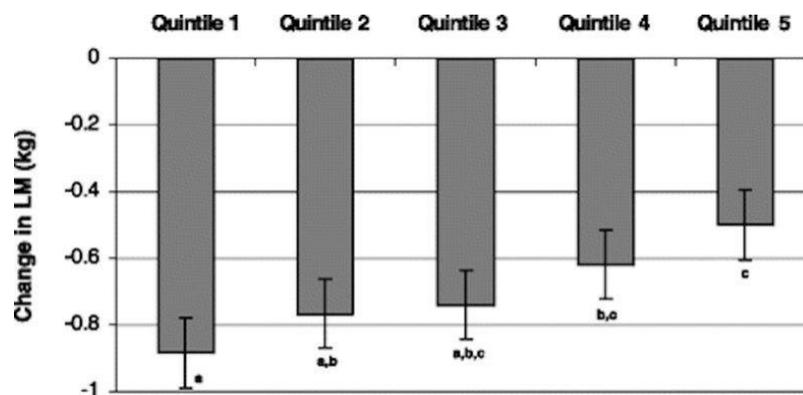
This study set out to find a connection between the amount of protein people ate as part of their regular diet and changes in skeletal muscle mass. The study surveyed 2,066 people ages 70-79. About half were women and the other half were men. Everyone was able to walk ¼ mile and climb 10 stairs.

Scientists asked the participants to estimate how much protein they usually ate. Then, the scientists organized the participants into 5 groups (called “quintiles”) based on their usual protein intake. People in quintile 1 ate the least protein per day, near or just below the current recommended daily value for protein (0.8 g per kg of body mass). People in quintile 5 ate the most protein per day (about 1.2 g per kg of body mass). The scientists calculated each participant’s muscle mass. The study participants ate what they usually ate (no protein supplements were given). Then, the scientists did the same calculation of muscle mass again 3 years later.

At the end of the three years, scientists found that participants who usually ate the most protein lost about 0.50 kg of muscle mass over the three years. However, participants who ate the least protein lost about 0.88 kg of muscle mass over the three years.

Adjusted lean muscle mass (LM) loss by quintile of energy-adjusted total protein intake.

Quintile 1 ate the least protein; Quintile 5 at the most protein



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