

Protein Recommendations

The Recommended Dietary Allowances (RDA) for protein is the minimum intake to prevent inadequacies and prevent muscle loss in 97.5% of healthy adults. Unfortunately, it's often communicated poorly to patients and consumers, and incorrectly cited as the recommended intake rather than the required minimum intake, or phrased not as a weight-based recommendation, but as a flat recommendation of 46 g/day for women and 56 g/day for men. The 0.8 g/kg is really just the minimum amount that our body needs to maintain basic physiological function, and does not include those who are either chronically ill, active, under significant stress, or have dietary restrictions.



For some nutrients, intakes above the RDA are recommended to optimize specific health outcomes, and growing evidence indicates that this practice should apply to protein as well, since the RDA does not adequately capture the quantity, quality, and distribution of protein that would benefit many adults.

Optimal Amounts for Various Populations



Older Adults : Numerous studies have demonstrated that older adults use dietary protein less efficiently and benefit from intakes above the RDA. For example, older adults experience a phenomenon known as anabolic resistance of skeletal muscle, which means their muscle is less sensitive to stimulus from resistance exercise or dietary protein. This can be overcome with higher volumes and/or higher intensity of resistance exercise, which may not be practical, or higher doses of protein. It's worth noting that protein intakes for older adults were established in predominantly healthy people, yet more than 95% of older adults have at least one chronic health condition, and nearly 80% have two or more.

The PROT-AGE Study Group recommendations of 1 to 1.2 g/kg/day for healthy older adults, 1.2 to 1.5 g/kg/day for those with either chronic or acute illness, and 2 g/kg/day for malnourished older adults and those with severe illnesses.



Weight Loss: It's well established that weight loss results in loss of both muscle and adipose tissue. Research has found that with energy deficits of 500 to 750 kcal/day, protein intakes of 1.6 g/kg/day help preserve muscle mass.

Protein Quality: The Leucine

The dietary requirement for protein is a surrogate for the amino acids that make up protein. There has been much discussion about the importance of leucine, thought to be the main amino acid that stimulates muscle protein synthesis (MPS). Consuming adequate leucine is important for building muscle, and the amount you need increases as you age. Current thought is that as much as 3 g of leucine at one time may be necessary to stimulate MPS, which corresponds to approximately 25 to 30 g of protein per meal, although resistance training lowers this threshold. The amount of leucine in protein foods varies, with animal proteins generally containing higher amounts of leucine than plant-based sources.

Protein at Every Meal

Many research studies have found that distributing protein evenly across meals—rather than having a breakfast with 10 g of protein and a dinner with 60 g of protein—is important for optimizing muscle protein synthesis (MPS). While consuming adequate protein each day is important for MPS, proper planning and distribution of protein intake are essential to achieve optimal results.

Researchers have observed that MPS is activated about 30 minutes after consuming protein foods containing about 3 g of leucine and remains elevated for about 2.5 hours, using fast-digesting proteins, such as whey protein can prolong the anabolic response for at least 12 hours, and physical activity near the meal can both increase and lengthen the body's response. Notably, in studies that observe greater 24-hour MPS with an even protein distribution, protein is closer to 30% of calories at breakfast, instead of 10%.

Following a more balanced protein distribution through the day may be a practical way for adults with marginal or inadequate protein intakes to achieve a moderately higher total intake. The studies found that to maximize anabolism, a better target is 0.4 g/kg/meal across a minimum of four meals in order to reach a minimum of 1.6 g/kg/day if the primary goal is to build muscle.