

BEEF
IT'S WHAT'S FOR DINNER.®

Protein Benefits

Research shows that consuming high-quality protein may help you achieve and maintain a healthy weight and preserve and build muscle.^{1,2}

Enjoy a heart-healthy diet!

Heart-healthy diets with high-quality, lean protein help maintain normal blood cholesterol levels and normal blood pressure.^{1,3,4}

Protein supports strength!

Protein helps support strong, lean bodies.⁵ Eating enough protein-rich food is essential to help protect lean body mass and prevent the loss of muscle and strength associated with aging.⁶

Get more from your workout!

Studies show exercise is more effective when paired with a higher-protein diet, and complete proteins, like beef, provide the amino acids necessary for muscle-building and recovery.⁵



What are complete proteins?

Proteins are made up of amino acids. Your body needs 20 amino acids, but only nine are essential, meaning they must come from food. Your body can make the remaining non-essential amino acids. Proteins that contain all nine essential amino acids in proportions most useful to the body are called complete or high-quality proteins. Proteins sourced from animal foods are complete proteins while most plant foods, with the exception of soy and quinoa, are incomplete proteins.

Why beef?

A 3-oz serving of cooked beef provides approximately 25 grams of high-quality protein plus 9 other essential nutrients in one tasty package.⁷ High-quality protein, like beef, contains the essential amino acid leucine, which research shows activates the muscle-building switch in the body.^{8,9}

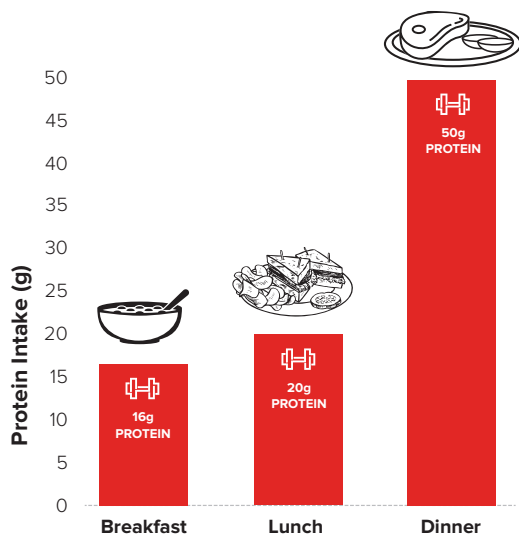
How much protein do I need?

The Institute of Medicine's recommendation for protein intake ranges from 10-35% of total calories for adults, or 50-175 grams of protein per day for a 2,000-calorie diet.¹⁰ Your specific protein needs will depend on your age, gender, activity and perhaps health considerations. One size does not fit all and the nutrition guidelines recognize this.

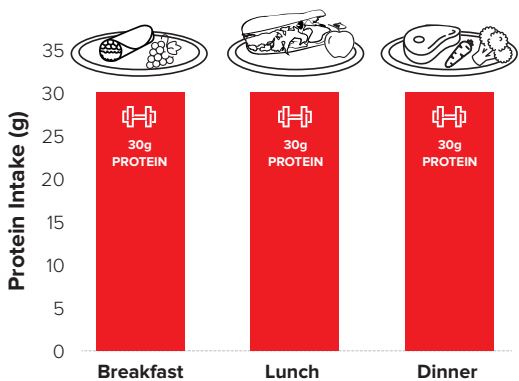
Recent protein research is finding that the benefits of protein consumption will vary depending not only on the amount of protein consumed,* but also on the daily pattern of protein consumption.^{11,12,13,14}

- People who eat a higher-protein diet (about 30% of daily calories or 150 grams of protein/2,000 calories) feel more satisfied, which may help prevent overeating.¹¹
- The typical American daily protein intake pattern does not capitalize on protein's benefits as it skews the majority of protein intake to the dinner time meal. Research shows that redistributing our protein intake evenly throughout the day may be the most beneficial for overall health and wellness because bodies build muscle in response to each eating occasion that includes 30 grams of protein.^{12,13,14} Aim for this amount of high-quality protein at each meal for ultimate body benefits.

Typical Daily Protein Intake Pattern¹⁴



Aim for Evenly Distributed Daily Protein Intake



Animal proteins, like beef, are nutrient-dense, making them an efficient food to help you meet your protein needs. As the chart below illustrates, one 3-oz serving of cooked beef with your meal makes it easy to hit the 30 grams of protein target while also helping you meet the nutrient requirements within the calories allotted by your age, gender, and activity level.

Protein foods and their caloric costs⁷

	AMOUNT	CALORIES	PROTEIN
Quinoa	3 cups	666	25g
Peanut Butter*	6.5 tbsp	613	25g
Black Beans*	1 2/3 cups	379	25g
Edamame	1 1/3 cups	249	25g
Beef	3 ounces	173	25g

*Not a complete protein - does not contain all essential amino acids

For the purpose of nutrition labeling, the Food and Drug Administration (FDA) has established a reference amount for a typical serving size of a food at one eating occasion, called Reference Amount Customarily Consumed (RACC). The RACC for the foods listed in the chart above are: cooked fresh meat/ beef – 85 grams (3 oz), cooked quinoa - 140 grams (¾ cup), peanut butter – 2 tablespoons, black beans and edamame - 90 grams (½ cup).

1. O'Connor LE, et al. A Mediterranean-style eating pattern with lean, unprocessed red meat has cardiometabolic benefits for adults who are overweight or obese in a randomized, crossover, controlled feeding trial. *Am J Clin Nutr*. 2018;108:33–40.
2. Sayer RD et al. Equivalent reductions in body weight during the Beef WISE Study: beef's role in weight improvement, satisfaction and energy. *Obes Sci Pract*. 2017 Jul 11;3(3):298-310.
3. Roussel MA et al. Beef in an Optimal Lean Diet study: effects on lipids, lipoproteins, and apolipoproteins. *Am J Clin Nutr*. 2012 Jan;95(1):9-16. 4
4. Layman D, et al. Protein in optimal health: heart disease and type 2 diabetes. *Am J Clin Nutr*. 2008;87:1571S-55S.
5. Layman D, et al. Dietary protein and exercise have additive effects on body composition during weight loss in adult women. *J Nutr*. 2005;135:1903-10.
6. Deutz NE, et al. Protein intake and exercise for optimal muscle function with aging: recommendations from the ESPEN Expert Group. *Clin Nutr*. 2014;33:929-36.
7. US Department of Agriculture, Agricultural Research Service, Nutrient Data Laboratory. USDA National Nutrient Database for Standard Reference, Legacy. Version Current: April 2018. Internet: /nea/bhnrc/ndl NDB #s: 20137-quinoa, 16097-peanut butter, 16316-black beans, 11212- edamame, 13364-composite beef
8. Norton LE, Layman DK, Bunpo P, Anthony TG, Brana DV, Garlick PJ. The leucine content of a complete meal directs peak activation but not duration of skeletal muscle protein synthesis and mammalian target of rapamycin signaling in rats. *J Nutr*. 2009;139(6):1103-1109.
9. Norton LE, Layman DK. Leucine regulates translation initiation of protein synthesis in skeletal muscle after exercise. *J Nutr*. 2006;136(2):533s-537s. 10 Paddon-Jones D, Rasmussen BB. Dietary protein recommendations and the prevention of sarcopenia. *Curr Opin Clin Nutr Metab Care* 2009;12:86-90.
10. Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Washington, DC: National Academies Press, 2005.
11. Leidy HJ, et al. The role of protein in weight loss and maintenance. *Am J Clin Nutr* 2015;101:1320S-9S.
12. Paddon-Jones D, Rasmussen BB. Dietary protein recommendations and the prevention of sarcopenia. *Curr Opin Clin Nutr Metab Care* 2009;12:86-90.
13. Layman DK. Dietary Guidelines should reflect new understandings about adult protein needs. *Nutr Metab (Lond)* 2009;6:12.
14. Mamerow MM, et al. Dietary protein distribution positively influences 24-h muscle protein synthesis in healthy adults. *J Nutr* 2014;144:876-80.



Funded by Beef Farmers and Ranchers

For recipes and more, visit
BeefItsWhatsForDinner.com