

# PROTEIN BENEFITS

Beef gives your body more of the high-quality protein you need to achieve and maintain a healthy weight and preserve and build muscle.

## WHY FOCUS ON PROTEIN?

Heart healthy diets with high quality lean protein helps lower cholesterol (the bad kind!), **reduce the risk of chronic disease and reduce high blood pressure.**

Protein **helps support strong, lean bodies.**

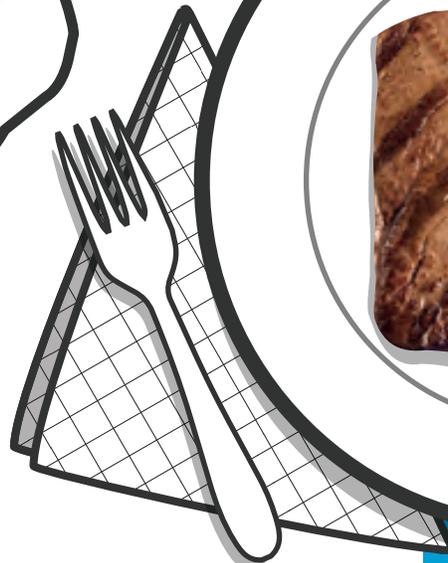
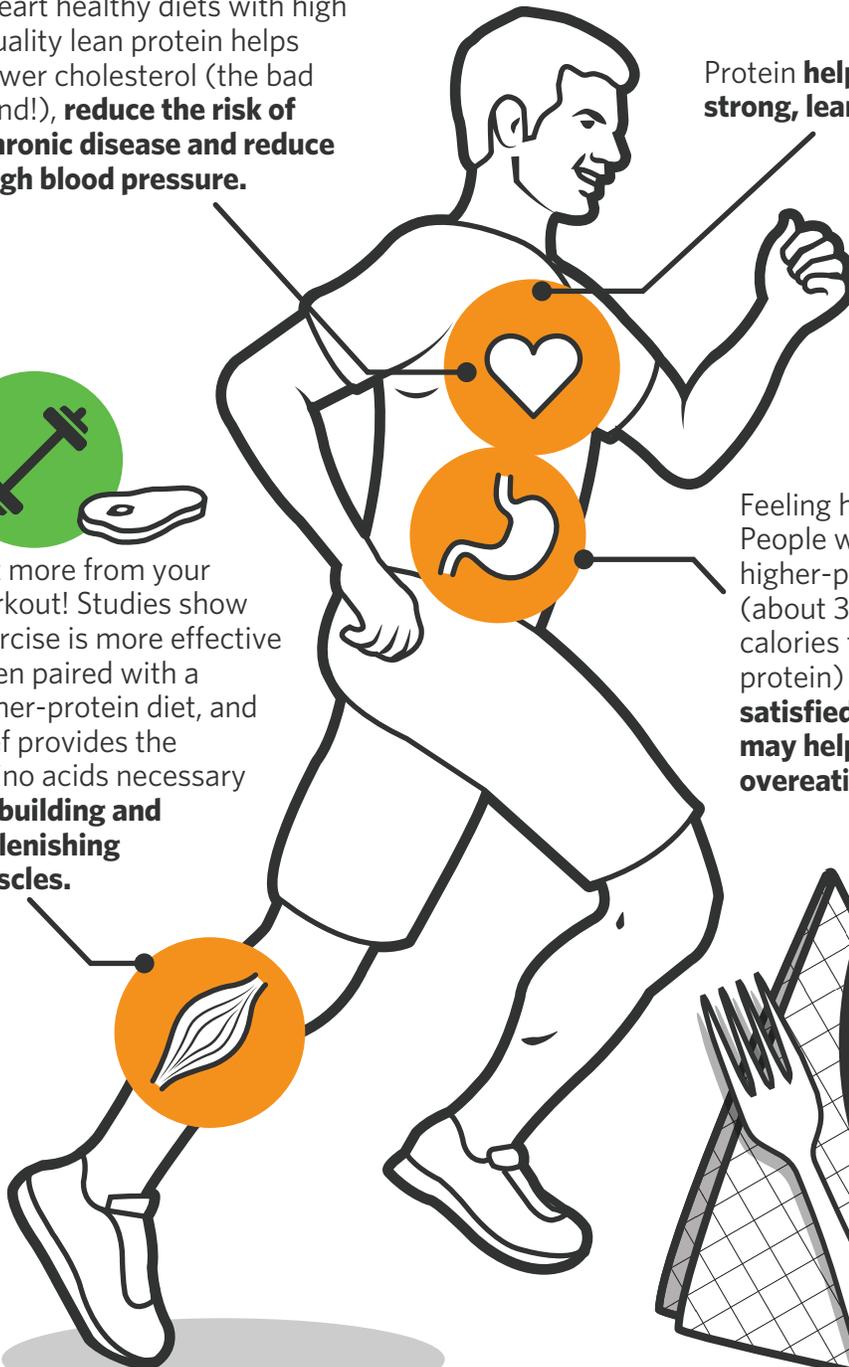
# 50%

of your recommended Daily Value of protein

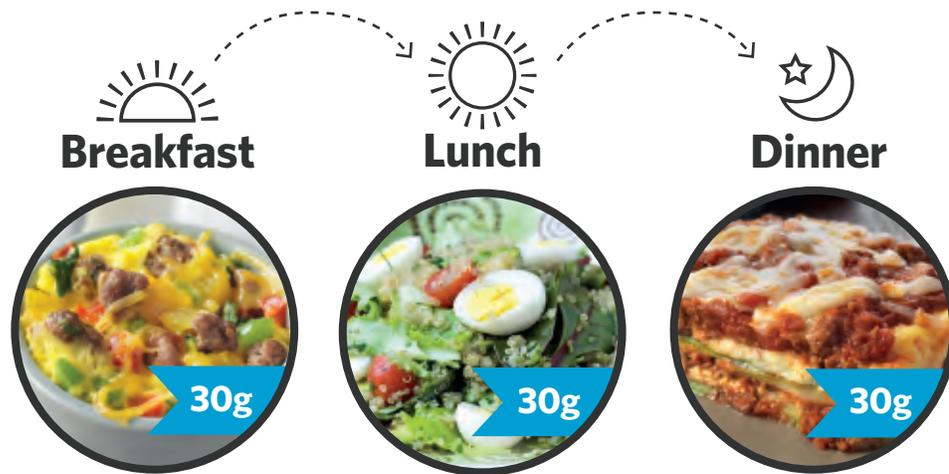
a 3-oz serving of **beef** provides 25 grams of protein and 10 essential nutrients in one tasty package.

Feeling hungry? People who eat a higher-protein diet (about 30% of daily calories from protein) feel **more satisfied, which may help prevent overeating.**

Get more from your workout! Studies show exercise is more effective when paired with a higher-protein diet, and beef provides the amino acids necessary for **building and replenishing muscles.**



# THE BENEFITS OF BALANCED PROTEIN THROUGHOUT THE DAY



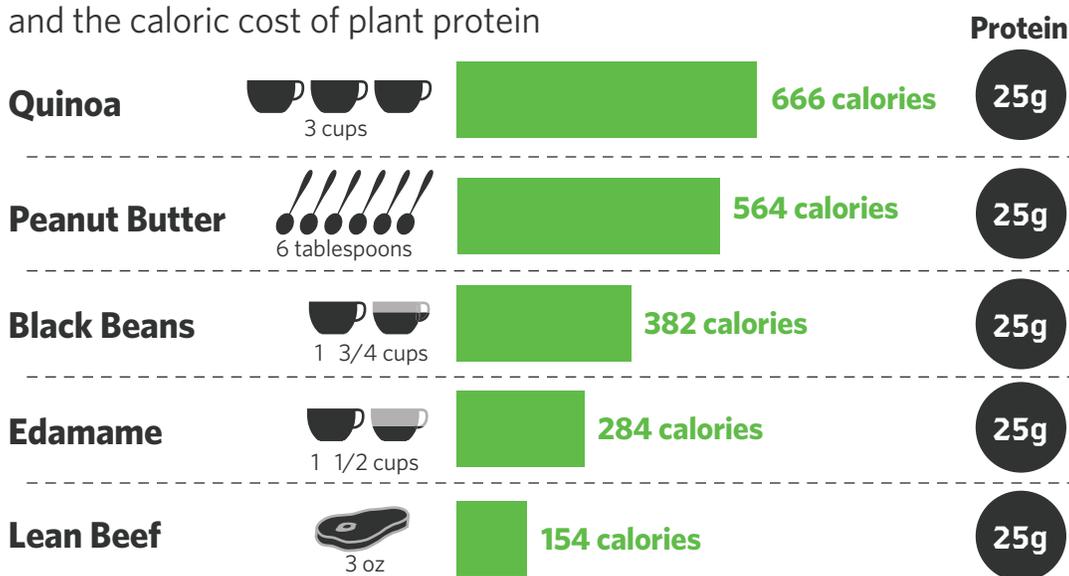
New research shows spreading protein intake evenly throughout the day may be the most beneficial for overall health and wellness.

## 25-30 grams

aim for this amount of protein at each meal, plus snacks for ultimate body benefits.

## WHAT DOES 25 GRAMS OF PROTEIN LOOK LIKE?

Take a look at what 25 grams of protein looks like and the caloric cost of plant protein



Animal proteins, such as lean beef, provide complete high-quality protein that contains all the essential amino acids the body needs for optimal health.

USDA/HHS. Dietary Guidelines for Americans, 2010. 7th Edition, Washington, DC: U.S. Government Printing Office, December 2010.

USDA, Agricultural Research Service. Energy intakes: percentages of energy from protein, carbohydrate, fat, and alcohol, by gender and age, what we eat in America, NHANES 2009-2010. Available at: [www.ars.usda.gov/ba/bhnrc/fsrg](http://www.ars.usda.gov/ba/bhnrc/fsrg).

Mamerow M, et al. Dietary protein distribution positively influences 24-h muscle protein synthesis in healthy adults. *J Nutr*. 2014;144:876-80.

Paddon-Jones D, et al. Protein, weight management, and satiety. *Am J Clin Nutr*. 2008;87:1558S-61S.

Leidy H, et al. Beneficial effects of a higher-protein breakfast on the appetite, hormonal, and neural signals controlling energy intake regulation in overweight/obese "breakfast-skipping" late-adolescent girls. *Am J Clin Nutr*. 2013;97:677-88.

Leidy H, et al. Increased dietary protein consumed at breakfast leads to an initial and sustained feeling of fullness during energy restriction compared to other meal times. *Br J Nutr*. 2009;101:798-803.

Johnston C, et al. High-protein, low-fat diets are effective for weight loss and favorably alter biomarkers in healthy adults. *J Nutr*. 2004;134: 586-91.

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.

Layman D, Walker D. Potential importance of leucine in treatment of obesity and the metabolic syndrome. *J Nutr*. 2006;136:2319S-2335.

Noakes M, et al. Effect of an energy-restricted, high-protein, low-fat diet relative to a conventional high-carbohydrate, low-fat diet on weight loss, body composition, nutritional status, and markers of cardiovascular health in obese women. *Am J Clin Nutr*. 2005;81:1298-306.

Merchant A, et al. Protein intake is inversely associated with abdominal obesity in a multi-ethnic population. *J Nutr*. 2005;135:1196-201.

Symons T, et al. A moderate serving of high-quality protein maximally stimulates skeletal muscle protein synthesis in young and elderly subjects. *J Am Diet Assoc*. 2009;109:1582-6.

Rodriguez N, et al. Dietary protein, endurance exercise, and human skeletal-muscle protein turnover. *Curr Opin Clin Nutr Metab Care*. 2007;10:40-45.

Layman D, et al. Protein in optimal health: heart disease and type 2 diabetes. *Am J Clin Nutr*. 2008;87:1571S-55.

Paddon-Jones D, Leidy H. Dietary protein and muscle in older persons. *Curr Opin Clin Nutr Metab Care*. 2014;17:5-11.

Westerterp-Plantenga MS, et al. Dietary protein, metabolism, and body-weight regulation: dose-response effects. *Int J Obes* 2006;30:S16-S23.

Roussell M, et al. Beef in an Optimal Lean Diet study: effects on lipids, lipoproteins, and apolipoproteins. *Am J Clin Nutr*. 2012;95:9-16.

Wycherley T, et al. Effects of energy-restricted high-protein, low-fat compared with standard-protein, low-fat diets: a meta-analysis of randomized controlled trials. *Am J Clin Nutr*. 2012;96:1281-98.

ABOVE ALL ELSE .



IT'S WHAT'S FOR DINNER.

[BeefItsWhatsForDinner.com](http://BeefItsWhatsForDinner.com)

Funded by the Beef Checkoff.