

Research continues to support the beneficial role of protein in weight loss and management, and in optimizing muscle strength and metabolism associated with physical activity. The amount, quality and timing of protein intake are important factors in improving the body's ability to feel satisfied longer, achieve a healthy weight, and build and retain muscle mass.

The Power of Protein

Many Americans could benefit from adding high-quality protein to their diets because of its positive role in weight management, muscle maintenance, and disease prevention.¹⁻⁴

- The Institute of Medicine recommends protein intake at 10-35% of total calories for adults, or 50-175 grams of protein per day for a 2,000 calorie diet.⁵
- The Recommended Dietary Allowance (RDA) for protein (0.8 g/kg for adults) is set at the lower end of this range.⁵
- On average, Americans consume 5.1 oz from the Protein Foods group each day (meat, poultry, eggs, fish/seafood, nuts, seeds and soy products), which is slightly below the recommended 5.5 oz per day for a 2,000-calorie diet.⁶
- Most adults only get about 15% of their daily calories from protein, which includes protein from all food groups.^{5,7}

A growing body of evidence indicates that eating a higher protein diet, or about 30% of daily calories from protein with 4 oz of a high-quality protein at each meal, may help maximize optimal health, maintain muscle mass, and provide energy to lead an active lifestyle.⁸ In addition, eating enough protein-rich foods is essential to help protect lean body mass and prevent the loss of muscle and strength associated with aging, and it may play a role in reducing risk for type 2 diabetes and cardiovascular disease.^{1,4,9}

Understanding High-Quality Protein

When it comes to choosing protein, not all food sources are created equal. Animal proteins, such as lean beef, provide complete high-quality protein that contains all the essential amino acids the body needs for optimal health. To get the same amount of protein found in lean meat from most plant proteins, such as beans, nuts and grains, results in consuming 1½ to 2 times more calories. For example, a 3-oz serving of lean beef (about 150 calories on average) provides about the same amount of protein as 1½ cups of cooked black beans (341 calories) in less than half the calories.¹⁵ Lean beef is also a top source of readily absorbable iron and zinc and an excellent source of vitamin B₁₂, an essential nutrient not naturally available in plant protein sources.¹⁵

Protein Satisfies

When it comes to satiety, or feeling satisfied after eating, protein has more staying power than carbohydrates and fat, helping to curb hunger and the desire to eat.^{10,11}

Consuming a high-protein meal (containing at least 30 grams of protein), particularly at breakfast, leads to improved appetite control and satisfaction throughout the day, which could help combat obesity.^{12,13} In fact, individuals who followed a high-protein diet (about 30% of daily calories from protein) complained less often about hunger and felt more satisfied compared to a typical diet.¹⁴ In addition, equal distribution of protein intake throughout the day (approximately 30 grams of protein at each meal) supports muscle protein synthesis and maintenance, increased satiety and, when protein is consumed at breakfast, reduced hunger and cravings later in the day.¹²⁻¹⁴ For example, a 4-oz cooked serving of lean beef, on average, provides 206 calories and about 34 grams of protein.¹⁵

How to Get Lean with Protein

The *2010 Dietary Guidelines for Americans* and *MyPlate* point out that variety is key when it comes to protein foods. This includes lean meat and poultry, seafood, eggs, beans and peas and nuts. Nonfat and low-fat milk, yogurt and cheese also provide protein. It's easy to enjoy lean protein in every meal as part of a balanced, active lifestyle:

Wake-Up Call

- Start the day with scrambled eggs in a whole-grain pita with vegetables. Add seasoned cooked lean ground beef crumbles and shredded cheese for an extra boost of protein.
- Order a nonfat latte to add protein to your morning coffee.

Maximize Mid-Day Munchies

- Pack beef jerky for a protein-powered treat when you're on the go.
- Add low-fat cheese or peanut butter to apple slices for a savory, high-powered snack.
- Snack on cottage cheese for a complete protein pick-me-up.

Lean Lunches

- Add some protein to a salad with a hardboiled egg, lean beef or chicken strips.
- Enjoy an open-faced, lean roast beef or ham sandwich for a high-protein lunch.

Satisfying Suppers

- Add lean ground beef to chili, soups, or stews to boost the protein power.
- Toss sliced lean steak or pork strips to pre-packaged veggie stir-fry for more protein sizzle.
- Get more protein in your meal by adding skinless chicken breast pieces or salmon chunks to a vegetable kabob.

Protein Preserves Muscle and Fuels Fat Loss

High-quality protein can help maintain a healthy weight, sustain weight loss, and keep a favorable body composition over time.³ The essential amino acid leucine, present in complete proteins like beef, interacts with insulin and glucose metabolism to promote skeletal muscle growth and may be beneficial for weight loss and maintaining muscle.^{3,16} In fact, consuming an energy-restricted diet with a higher ratio of protein to carbohydrate may help people lose more fat mass compared to conventional diets,¹⁷ and help to lower waist-to-hip ratio by reducing abdominal fat.¹⁸ Compared to other weight loss approaches, increasing lean protein intake may be more effective because it helps to increase satiety and preserve lean muscle.²

Protein Boosts Benefits of Physical Activity

Physical activity is more effective when paired with a protein-rich diet.^{19,20} It is well known that protein consumed after exercise provides the amino acids necessary for muscle repair and recovery, helping to stimulate further muscle synthesis.²⁰ Evidence also suggests that a protein-rich diet combined with resistance exercise helps adults become more toned by helping them lose fat and maintain muscle mass.^{19, 20} In a weight loss study that included cardio and strength training exercise sessions, researchers compared individuals who followed a protein-rich diet (about 30% of calories from protein) with those who consumed a diet with higher amounts of carbohydrates (about 15% of calories from protein).¹⁹ Those who followed a combined protein-rich diet and exercise program experienced weight loss (mostly fat mass), compared to the subjects in a high-carbohydrate and exercise group (whereas 25-30% of the weight lost was muscle).¹⁹

Recipe for a Lean Protein Meal

Mediterranean Beef and Veggie Wrap (4 servings)

12 oz cooked lean beef (such as steak, roast, pot roast or deli roast beef), thinly sliced
4 medium whole wheat flour tortillas (8-10 inch diameter)
Hummus, any variety
Fresh salad greens (such as baby spinach, arugula, mixed salad greens or thinly sliced Romaine)
Grape tomatoes halves, shredded carrots, red bell pepper strips, thinly sliced cucumber, thinly sliced red onion

Spread each tortilla evenly with hummus, as desired, leaving 1/4-inch border around edge. Top with equal amounts salad greens and vegetables, as desired. Top evenly with beef slices. Roll up tightly. Serve with 1 cup of nonfat milk and 1/2 cup of grapes.

Nutritional information per serving (based on Sirloin Tip):
480 calories; 11 g fat (2 g saturated fat; 2 g monounsaturated fat); 70 mg cholesterol; 490 mg sodium; 55 g carbohydrate; 4 g fiber; 38 g protein; 0.4 mg niacin; 0.7 mg vitamin B₆; 4.4 mcg vitamin B₁₂; 4.3 mg iron; 42 mcg selenium; 7.2 mg zinc; 133 mg choline



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