

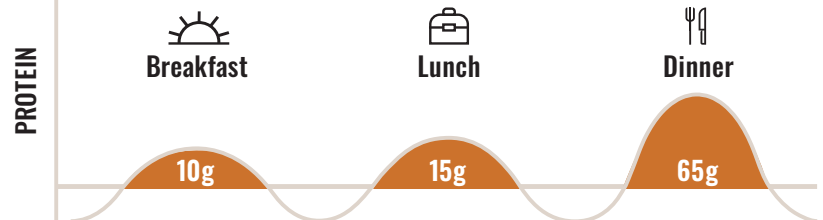
THE POWER OF PROTEIN

Protein requirements vary by age, gender, activity level, and goals, but 1.2-1.6 grams of protein per kilogram of body weight is generally recommended. This equates to consuming about **0.5-0.75 grams of protein per pound of body weight** each day.¹

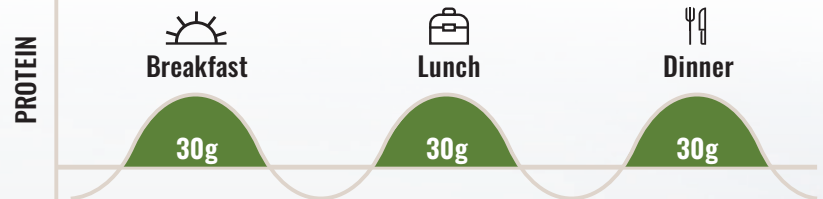
Research shows that distributing our protein intake evenly throughout the day may be the most beneficial for overall health and wellness, and can help you feel satisfied longer between meals.^{2,3,4,5}

Aim for at least **25-30 grams** of high-quality protein at each meal.

TYPICAL PROTEIN DISTRIBUTION



OPTIMAL PROTEIN DISTRIBUTION



NOT ALL PROTEINS ARE CREATED EQUAL

WHAT MAKES A PROTEIN "HIGH QUALITY"?

1. Being a **complete protein**, meaning it contains all of the essential amino acids (the building blocks that we need to get from the food we eat).
2. Being **highly bioavailable**, or easy for the body to digest and use the protein from the food source.

ANIMAL PROTEINS

Beef, fish, poultry, eggs, and milk generally have the **highest protein quality** because they are:^{6,7}

- Complete protein sources
- Highly bioavailable
- Optimal in their ability to help the body build and maintain muscle
















PLANT PROTEINS

Plant-based protein sources often score **lower in protein quality** because most are incomplete.⁶

• Soy and quinoa are notable exceptions, as these do contain all of the essential amino acids.

- Plant-based proteins are less effective than animal proteins in supporting muscle growth and maintenance.⁸
- Plants contain other components that can support our health in many ways, including dietary fiber.

In addition to differing in protein *quality*, foods also contain differing *quantities* of protein and calories per serving. Here are a few examples.⁹

	AMOUNT	CALORIES	PROTEIN
Beef	 3 oz.	 173	 25g
Edamame	 1 1/2 cups	 249	 25g
Black Beans	 1 1/2 cups	 379	 25g
Peanut Butter	 6 1/2 tbsp.	 613	 25g
Quinoa	 3 cups	 666	 25g

PROTEIN can be a game-changer for **weight management**.¹³

HOW?

- Eating enough protein increases feelings of fullness, which can help reduce cravings.
- Protein requires more energy to break down than carbohydrates or fat.
- Adequate protein is essential to retain muscle while losing weight, regardless of how you choose to do so.

TIPS TO INCREASE PROTEIN INTAKE:

- Build each meal around a high-quality protein source.
- Include protein for snacks that pack a big punch. Try these combinations:
 - Beef jerky and fresh or dried fruit
 - Greek yogurt with granola
 - Hard-boiled eggs with whole grain toast
 - Cheese stick and fresh veggies



PROTEIN is **one piece of the puzzle!**

PAIR PROTEIN WITH:

- Fiber-rich carbs
- Plenty of water
- Healthy fats



PROTEIN is a key component of **muscle growth and repair, supporting active lifestyles, and promoting healthy aging.**

WHY DO WE NEED PROTEIN TO MAINTAIN MUSCLE?

- Protein is essential for strength and mobility in later life, as our bodies naturally lose muscle mass starting as early as our 30s.¹⁰
- Research shows that consuming animal protein can help to preserve muscle mass in older adults.¹¹
- Protein + resistance training = stronger muscles and bones to do what you enjoy!

The Physical Activity Guidelines for Americans recommend that healthy adults **ages 18-65** engage in muscle-strengthening and endurance activities **at least two days per week**.¹²



Farmer's Market
Vegetable, Beef, &
Brown Rice Salad

Quick and easy **PROTEIN-RICH** recipe

BEEF AND EGG BREAKFAST MUG

Makes 1 serving

INGREDIENTS:

- 1 large egg
- 4 Tbsp. Beef Sausage
*OPTIONAL: Replace with leftover beef (e.g., shredded roast, taco meat, or steak)
- 2 Tbsp. reduced-fat cheese (e.g., Cheddar, Monterey Jack, or American), shredded
- 2 Tbsp. fresh vegetables (e.g., tomato, bell pepper, spinach, green onion), chopped
- Salt and pepper, as desired

Nutrition information per serving: 178 Calories; 81 Calories from fat; 9g Total Fat (4 g Saturated Fat; 4 g Monounsaturated Fat); 225 mg Cholesterol; 297 mg Sodium; 2 g Total Carbohydrate; 0.4 g Dietary Fiber; 21 g Protein; 2.3 mg Iron; 4.9 mg NE Niacin; 0.3 mg Vitamin B6; 1.6 mcg Vitamin B12; 3.8 mg Zinc; 25.4 mcg Selenium; 188.6 mg Choline.

This recipe is an excellent source of Protein, Selenium, Zinc, Riboflavin, Niacin, Vitamin B12 and Choline. It is a good source of Iron and Vitamin B6.

PREPARATION:

1. Prepare beef sausage (when applicable).
• Try the **Basic Country Beef Breakfast Sausage** recipe at BeefLovingTexans.com.
2. For each serving, spray one 6-12 oz. microwave-safe mug or bowl with non-stick cooking spray. Add 1 large egg and 1 Tbsp. water; whisk with a fork. Stir in beef and fresh vegetable selections.
3. Microwave, uncovered, on HIGH for 30 seconds. Remove from oven and stir. Continue to microwave on HIGH for 30-60 seconds or until egg is set.
4. Remove from microwave and stir. Top with cheese. Let stand for 30 seconds or until cheese is melted. Season with desired salt and pepper.

Enjoy with a glass of milk or serving of yogurt for **25+ grams of protein.**

SIMPLE STEPS for everyday

- Prioritize **high-quality protein** sources
- Distribute intake throughout the day, aiming for **25-30 grams per meal**
- Include protein with any snacks throughout the day



For more nutritional tips and high-quality protein recipes, visit **BeefLovingTexans.com.**

REFERENCES:

1. U.S. Department of Health and Human Services and U.S. Department of Agriculture. (2026). Dietary Guidelines for Americans, 2025-2030. <https://odphp.health.gov/our-work/nutrition-physical-activity/dietary-guidelines/current-dietary-guidelines>.
2. Leidy HJ, et al. The role of protein in weight loss and maintenance. *Am J Clin Nutr* 2015;101:1320S-9S.
3. Paddon-Jones D, Rasmussen BB. Dietary protein recommendations and the prevention of sarcopenia. *Curr Opin Clin Nutr Metab Care* 2009;12:86-90.
4. Layman DK. Dietary Guidelines should reflect new understandings about adult protein needs. *Nutr Metab (Lond)* 2009;6:12.
5. Mamerow MM, et al. Dietary protein distribution positively influences 24-h muscle protein synthesis in healthy adults. *J Nutr* 2014;144:876-80.
6. Hoffman J, Falvo M. Protein – which is best. *J Sports Sci Med*. 2004;3(3):118-130.
7. Berrazaga I, Micard V, Gueugneau M, Walrand S. The role of the anabolic properties of plant-versus animal-based protein sources in supporting muscle mass maintenance: a critical review. *Nutrients*. 2019;11(8):125
8. Brennan IM, Luscombe-Marsh ND, Selmon RV, et al. Effects of fat, protein, and carbohydrate and protein load on appetite, plasma cholecystokinin, peptide YY, and ghrelin, and energy intake in lean and obese men. *American journal of physiology gastrointestinal and liver physiology*. 2012;303(1):G129-140.
9. U.S. Department of Agriculture, Agricultural Research Service. FoodData Central. 2019. Internet: fdc.nal.usda.gov. NDB #s: beef composite-13364; edamame-11212; black beans-16316; peanut butter-16097; quinoa-20137.
10. Leon AS. Attenuation of Adverse Effects of Aging on Skeletal Muscle by Regular Exercise and Nutritional Support. *Am J Lifestyle Med*. 2016 Jun 23;11(1):4-16. doi: 10.1177/1559827615589319. PMID: 30202306; PMCID: PMC6124840.
11. Baum JJ, Wolfe RR. The Link between Dietary Protein Intake, Skeletal Muscle Function and Health in Older Adults. *Healthcare (Basel)*. 2015 Jul 9;3(3):529-43. doi: 10.3390/healthcare3030529. PMID: 27417778; PMCID: PMC4939566.
12. U.S. Department of Health and Human Services. (2018). Physical Activity Guidelines for Americans, 2nd edition.
13. Kokura Y, Ueshima J, Saino Y, Maeda K. Enhanced protein intake on maintaining muscle mass, strength, and physical function in adults with overweight/obesity: A systematic review and meta-analysis. *Clin Nutr ESPEN*. 2024 Oct;63:417-426. doi: 10.1016/j.clnesp.2024.06.030. Epub 2024 Jun 24. PMID: 39002131.