



# PROTEINS ARE NOT CREATED EQUAL

## The Power of High-Quality Protein

Delicious. Satisfying. Keeps me strong.

These words are often used to describe the protein-rich foods that people enjoy. There are many sources of protein available for us to choose from, however, people are sometimes surprised to learn that not all sources of protein are equal. Food sources of protein contain a variety of amino acids, the building blocks of protein. While all amino acids are needed, there are nine essential amino acids, meaning our body cannot generate them on its own.<sup>1</sup> Therefore, we must rely on the foods we eat to provide us with these essential amino acids. Animal proteins, such as lean meats, eggs and low-fat dairy products are complete, high-quality protein sources that contain all nine essential amino acids. Plant proteins such as grains, legumes, nuts and seeds tend to lack one or more essential amino acids, and are thus considered incomplete proteins. Research has indicated that consuming complete, high-quality proteins may help you meet your protein needs, improve satiety and preserve lean muscle mass.<sup>2,3</sup> In addition to consuming enough protein in a day, aiming for 20-30 grams of protein per meal has been shown to optimize skeletal muscle synthesis.<sup>4</sup>

## Dietary Iron and Zinc

Lean beef contains heme iron, which is more easily absorbed than nonheme iron,<sup>5</sup> the main form of iron found in plant proteins. Iron not only helps red blood cells carry oxygen to body tissue, it also plays an important role in cognitive health, including memory, ability to learn and reasoning.<sup>6</sup>

Lean beef is an excellent source of readily available zinc, an essential nutrient that fuels thousands of bodily processes, including building muscles and healing wounds, maintaining the immune system, and contributing to cognitive health. Including beef in your diet can also improve the absorption of zinc from other foods.<sup>7</sup>

## The Caloric Cost of Protein Sources

Including high-quality protein, like lean beef, in the diet can make it easy to get all the essential nutrients you need for a healthy lifestyle for relatively few calories. When compared to sources of plant protein, a 3-ounce serving of lean beef offers the most protein with the fewest calories.<sup>8</sup>

## WHAT DOES 25 GRAMS OF PROTEIN LOOK LIKE?

	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

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4. Paddon-Jones D, Rasmussen BB. Dietary protein recommendations and the prevention of sarcopenia. *Curr Opin Clin Nutr Metab Care* 2009;12:86-90.
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