



## PROTEIN: A FOUNDATION FOR A HEALTHY LIFE

### Part 1: Dietary Protein Needs

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*This “From the 4Life® Labs” article will be the first installment in a four-part series discussing the many benefits of protein and PRO-TF®.*

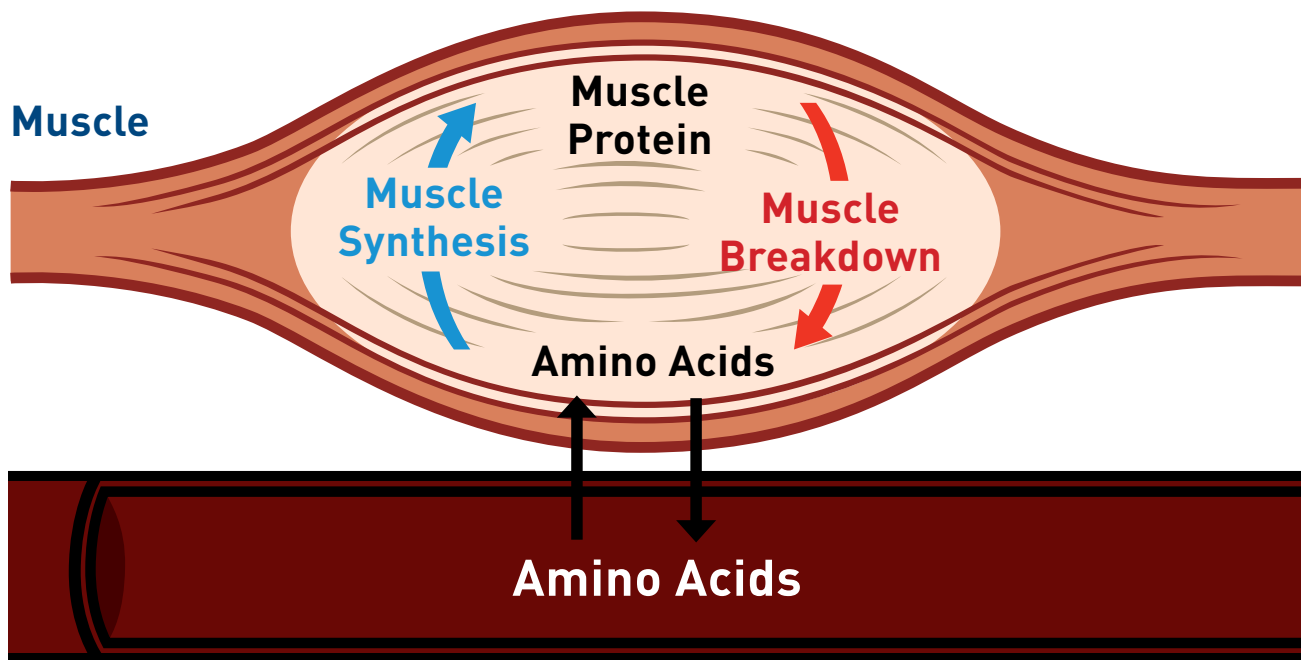
Proteins, carbohydrates, and fats are the three macronutrients that provide the necessary ingredients to produce energy for the body. It’s important to remember that each of the macronutrients plays a vital role in overall health.

Proteins play many key roles in maintaining healthy functions of body systems. Part of all body tissues are built from structural, and in the case of muscle, contractile proteins. Proteins like casein and hemoglobin play a key role in storage and transportation within the body. Other proteins also act as enzymes, facilitating other vital processes in the body. Transfer factors, which aid in immune function, are an example of protective proteins. As you can see, proteins are not just important. They are essential for sustaining life.

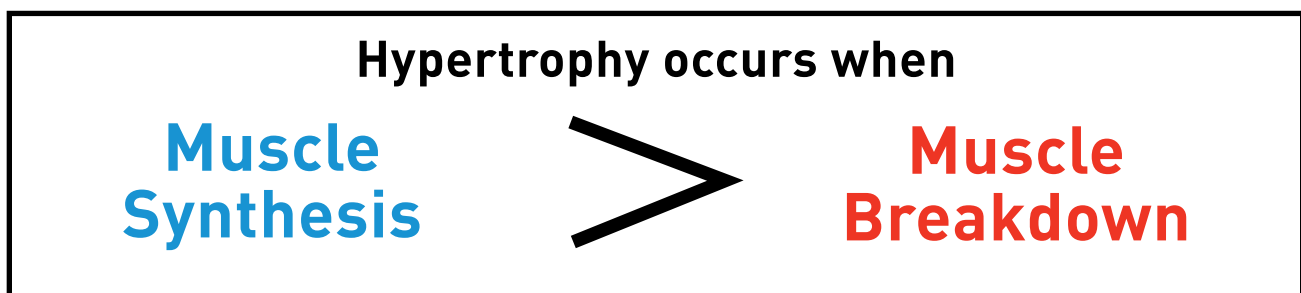
Dietary protein and consistent exercise provide the building blocks for increasing muscle size, increasing strength, and increasing power in active individuals. A group from the United States Army Research Institute published two systematic reviews, analyzing the research in these areas.<sup>1,2</sup>

They found that increased protein intake, coupled with increased exercise duration, frequency, and volume, led to increased muscle size, strength, and power. They also concluded that protein supplementation following daily exercise could be beneficial at reducing muscle soreness and markers of muscle damage. In other words, protein helps the physically active person who exercises daily to recover more efficiently. It's clear that in addition to protein's role in maintaining essential functions in the body, protein also plays a key role in enhancing muscle function.

## **SCHEMATIC OF PROTEIN BREAKDOWN & SYNTHESIS**



**Blood**



## HOW MUCH PROTEIN DO YOU NEED?

While recommendations vary depending on the source, the Academy of Nutrition and Dietetics, along with the American College of Sports Medicine, have made recommendations based on age and activity level.<sup>3,4</sup> The protein amount needed increases for growing children and adults over the age of 50, who tend to lose more muscle as they grow older. Furthermore, protein intake can be beneficial for weight management because it suppresses the appetite better than other macronutrients. It can also be a good replacement for calorie-dense fats.

POPULATION	INTAKE RECOMMENDATION (PER DAY)
Sedentary adults	0.8–1.0 g per kg of body weight
Children (0–1 year old)	1.4–1.6 g per kg of body weight
Children (2–18 years old)	1.2–0.85 g per kg of body weight <sup>^</sup>
Adults older than 50 years	1.0–1.1 g per kg of body weight
Active adults (endurance)	1.2–1.8 g per kg of body weight
Active adults (strength/power)	1.2–2.0 g per kg of body weight

## WHEN SHOULD YOU CONSUME PROTEIN?

If you are not physically active, you should consume protein as part of your normal, balanced diet during meals and snacks. However, if you're physically active, consider protein consumption prior to exercise, as it may help preserve muscle mass during exercise and help eventual recovery. Further, protein intake following exercise has been shown to stimulate protein synthesis (muscle growth) for up to 3 hours, and intake within the first hour following exercise may have the greatest influence on positive muscle adaptations.

In Part 2 of this series, we will discuss where PRO-TF<sup>®</sup> fits into the protein picture and its unique benefits for the body.\*

