

POWER UP WITH PROTEIN

THE BUILDING BLOCK OF MUSCLES

by brantley black

Originally, protein was thought to be the nutrient responsible for strength and stamina. Slowly, research started to show the importance of carbohydrates and fat for energy production and optimal performance. Although carbohydrates are now known to be the muscles' primary fuel and fat provides the most concentrated storage form of energy for the body, protein is essential for anyone concerned about performance. Depending on how muscular you are, the majority of your body weight is derived from protein.

Protein is a macronutrient which is formed when 100 or more amino acids link together. The building blocks of protein are 20 different amino acids. Of the 20 amino acids, 9 are considered essential (histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine) because the body cannot produce them. Because the body needs a daily supply of these amino acids, protein is an essential nutrient that needs to be consumed daily.

Protein is important for building muscle and repairing muscle fibers after exercise, but proteins in the body have thousands of other essential roles, including: providing antibodies for the immune system, aiding in the digestion and absorption of food, being a source of fuel when muscle glycogen levels are



low, maximizing the transport of oxygen to tissues, and providing structure for the body's organs and bones and all other tissues.

About 90% of the protein you eat is broken down into amino acids that the body draws upon to repair muscles or other tissues or perform any of the other essential roles listed previously. The body excretes the other 10%. Unlike carbohydrates and fat, amino acids have no form of storage in the body, so it is important to have some protein every day. If you don't eat enough protein, your body will consume protein from its own muscles to provide the necessary supply of amino acids (your body will snack on its own muscles).

Your protein intake should provide 10% to 35% of your total daily caloric intake. For heavy strength training, your intake could be as much as 1.5 to 2.0 grams of protein per pound of body weight per day. If you're trying to gain size, eat up!

Brantley Black has been a personal trainer for seven years. He is certified through the National Academy of Sports Medicine as well as the Aerobics and Fitness Association of America. He is insured and trained in CPR. For more information, call 323-559-3008 (TRAINING WITH BRANT).