

FIRE FITFACTS

FROM THE PHOENIX FIRE DEPARTMENT
AND THE AMERICAN COUNCIL ON EXERCISE

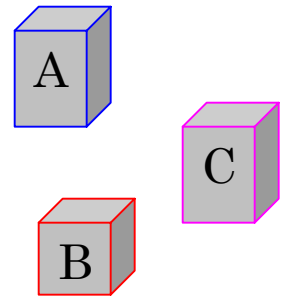
The Body's Building Block ~ Protein

What is Protein?

Protein is a macronutrient that provides the basic building blocks of your body. While there are many myths surrounding protein there is no doubt that it is very important for normal growth and development.

Protein can also be used for energy but it is not the body's first choice. When protein is used for energy it produces 4 Calories / Gram. Too much protein from the diet is stored as fat for future energy needs.

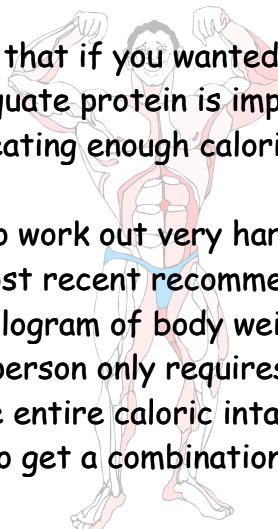
Protein is made up of **amino acids**. These amino acids are put together in predetermined sequences to make any protein the body needs. This is how the body increases its muscle mass, makes new blood cells, produces hormones or makes the enzymes necessary for all life. Some amino acids the body can manufacture - these are called nonessential amino acids. Other amino acids must come from the food you eat - these are called essential amino acids.



The Myth of Protein

Many years ago it was thought that if you wanted to increase your muscle mass you had to eat muscle (meat). While eating adequate protein is important, putting on muscle mass is a combination of genetics, hard work, eating enough calories, getting enough sleep and the natural level of testosterone found in your body.

Today we know that people who work out very hard do require a little extra protein but not as much as many people believe. The most recent recommendation is for athletes in heavy weight training to eat 1.4 to 1.8 grams per Kilogram of body weight. Endurance athletes require 1.2 to 1.4 grams per Kilogram and the average person only requires 0.8 grams per kilogram. These numbers equal approximately 15 to 25% of the entire caloric intake. Those that adapt a vegetarian diet must eat a wide variety of plant proteins to get a combination of all of the essential amino acids.



<u>Complete Proteins</u>	<u>Incomplete Proteins</u>	<u>Weight in Kilograms</u>
Fish	Vegetables	weight in pounds/2.2= weight in kilograms
Chicken	Beans	
Meat	Nuts	example: 150lbs/2.2= 68kg
Eggs		
Milk		
Yogurt		