



# Health and Wellness

## POCKET TOOLS TRAINING

### NUTRITION BASICS

August 2012

#### Health & Wellness Series

**References:**  
Mary B. Grosvenor,  
L.A. (2010).  
Visualizing Nutrition.  
Hoboken, NJ; Wiley  
and Sons

**Recommended Daily Allowance for Protein:**

Adults - .8 grams per kg of body weight

Endurance Athletes- 1.2 to 1.4 grams per kg body weight

Strength Athletes- 1.2 to 1.7 grams per kg of body weight

*To calculate pounds to kg- (weight in lbs. x0.45)*

Example: A 150lb man who regularly participates in strength training would need:

$$150\text{lbs} \times 0.45 = 67.5 \text{ kg}$$

$$67.5\text{kg} \times 1.7 = 115 \text{ grams of protein per day}$$

## The Power of Protein

What first comes to mind when you hear the word “protein”? For many, it’s steak, chicken, eggs or even a supplement such as shakes or bars. The truth is, protein can be found in a variety of foods. Additionally, many people subscribe to the thought that eating more protein automatically results in a healthier body. Let’s take a look at what protein is, what it does for the body and how much we actually need.

What is protein?

Proteins are comprised of amino acids. There are 20 amino acids commonly found in proteins. There are thousands of various types of proteins, each dependent upon the respective combination of amino acids contained within. These amino acids are vital to proper functioning of the human body. Of the 20 amino acids, some are considered to be “essential” and others “non-essential”. At first glance you might think that the non-essential amino acids are unimportant to our diet. This is not the case at all. Here is what those terms mean:

**Essential:** *Needed by the body to perform basic functioning; however, the body cannot manufacture these on its own. These must be consumed in the diet.*

**Non-essential:** *Needed by the body to perform basic functioning; however, the body can synthesize these on its own.*

Proteins that come from animal products such as chicken, steak and eggs are considered to be complete protein- meaning they contain all essential amino acids. Proteins that come from plant products such as beans, nuts and grains are considered to be incomplete protein- meaning they may have some but not all of the essential amino acids.

What does protein do for our bodies?

Proteins are the building blocks of our bodies. They are major components in the makeup of our skin, ligaments, tendons, artery walls and bone matrix. They help regulate hormone activity, regulate fluid and electrolyte balance, assist the immune system with the production of antibodies, and are the primary makeup of our muscles. On that note, protein plays a vital role in the repair and rebuilding of body tissues- especially muscle.

How much do we actually need?

Most of us get adequate protein to keep our bodies functioning properly from normal diets. With that said, protein needs can be increased by factors such as growth, injury or illness, or physical exercise. Protein needs are based on body weight because protein is needed to repair and maintain body tissues. On the left of this page, you can use the formulas listed to calculate your protein needs based upon the Recommended Daily Allowances.