

## PROTEIN INTAKE & STRENGTH TRAINING

(adapted from the “Sports Nutrition Guidebook” by N.Clark)

To build muscle you need a carbohydrate-based diet because carbs are stored in the muscles for energy and you can't lift weights and demand a lot from your workouts if your muscles are carbo-depleted. High-protein diets do not build muscle bulk - exercise does. While protein is needed to repair muscle tissue, excess protein may actually be stored as glycogen or **fat**.

The reason protein supplements may work for lean muscle weight gain is that they provide extra calories.

### HOW MUCH PROTEIN DO YOU NEED?

In general, 0.8 to 0.9 grams of protein per pound of body weight seems to be appropriate for the growing teenage athlete.

Ex. A 150-pound teenager would need ~120 to 135 grams of protein per day (a 4oz. serving of roasted chicken breast = 35 grams of protein)

So in theory, if you want to gain 1 pound of muscle per week, you need only 14 extra grams of protein per day (the amount in 2oz. of meat – a mere forkful). However, many athletes eat that, plus more in their quest for enhanced performance.

### CAN YOU GET TOO MUCH PROTEIN?

Contrary to what most people think, too much protein can be a real health and performance problem.

-If you fill your stomach with too much protein, you won't be fueling your muscles with carbohydrates.

-Eating excess protein can lead to increased urination. This may increase the risk for dehydration and burdening of the kidneys.

-A diet high in animal protein tends to be high in fat.

### WHAT ABOUT AMINO ACID SUPPLEMENTS?

Amino acid = a protein building block. There are 21 of these amino acids & every protein in your body is made up of some combination of them. While your body is able to make some of these amino acids, the others must come from foods you eat (called “essential amino acids”).

To date there is no scientific evidence that *individual* amino acids have a body building effect - your body needs all the essential amino acids to repair and help make new muscles. Furthermore, the amount of amino acids in these supplement formulas are less than that which you could get by eating “real” foods.