

## The Benefits of Protein

### How does protein help with weight loss?

- Higher protein diets help keep you fuller longer as they take longer to digest. This will help you eat less.
- When the body does not get its protein needs met in a diet, it will take protein from your muscles. While you will always lose some muscle mass with weight loss, you can minimize this by giving your body the protein that it needs.
- When you eat more protein, you tend to have less room for unhealthy snacks. Simple carbohydrates/sugars release insulin at a greater rate and, in turn, cause your body to store more fat. Higher carbohydrate foods are digested quickly. This, combined with the increase insulin release and subsequent drop in blood sugar, causes you to feel hungry much faster (even “shaky” at times).
- By eating protein with your carbohydrates (fruits, grains, potatoes, etc) you will keep blood sugar more stable throughout the day. This often had the additional benefit of helping you to feel more energized and have fewer mood swings throughout the day.
- Studies show that people on calorie restricted diets, supplemented with protein have more weight loss than people who restrict calories but do not increase protein intake.
- Newer studies are suggesting that increasing your protein at breakfast (the magic number in the study was 30g of protein) helped decrease overall daily kcal intake by 100 kcal (that would give a loss of 10 pounds per year).

### Background Information: Protein

Protein = 4 calories per gram

The basic building blocks of all protein are called amino acids. Amino acids are classified into either essential or non-essential.

- Non-essential amino acids can be produced by the body
- Essential amino acids cannot be produced by the body and therefore must be obtained from the food you eat

### **Why Does the Body Need Protein?**

- Protein is a component of all cells in your body and essential for good health.
- Protein is a component of skin, muscle, bone, cartilage, blood and lymph.
- Enzymes are made of protein, which help to extract energy from the food we eat.
- Hormones, such as insulin, are protein.
- Protein maintains fluid balance.
- Protein makes scar tissue and visual pigment that lets us see.
- Protein provides a protective coating for the body in the form of hair, skin and nails.
- Protein carries nutrients to and from cells.
- Antibodies are made up of proteins that fight off disease.
- Protein serves as a component of hemoglobin, which carries oxygen to the blood.

Protein is eaten - goes to the stomach for digestions – gets broken into amino acids – then the body decides how to use them.

### **Complete and Incomplete Proteins:**

#### Complete Proteins:

Complete proteins contain all the essential amino acids and some of the non-essential ones. These sources of protein alone meet the body's protein needs. Complete protein come from animal sources as well as some plant based sources such as soy.

#### Incomplete Proteins:

Incomplete protein foods lack one or more of the essential amino acids or contain them in the wrong proportion for adequate growth. Sources of incomplete protein include beans, grains, fruits, nuts and vegetables (plant sources). When certain plant foods (i.e. starchy beans) are combined with another plant food (i.e. grains) or an animal protein (i.e. meat), the protein becomes more efficient and useful to the body. Vegetarians must be careful to combine incomplete proteins to make a complete protein source.

#### **Complete Proteins (Animal Sources)**

Meat  
Poultry  
Fish  
Eggs  
Dairy Products

#### **Incomplete Proteins (Vegetable Sources)**

Legumes	Barley
Corn	Seeds
Wheat	Leafy Green Vegetables
Oats	Rice