



## September 2010 Highlight



### Proteins – What & Why

Proteins are the building blocks of our bodies. Made up of amino acids, they provide structure and function to our bodies. They are responsible for growth and repair of our cells. Important chemicals, such as enzymes, hormones and even DNA are made up partially of protein. There are nine essential amino acids that our bodies cannot produce (which include lysine and tryptophan); therefore, we must obtain them from foods. The other 13 non-essential amino acids are produced by the body and are not necessary to find them in our diets.

#### Complete and Incomplete Proteins

Certain foods contain all the essential amino acids and are considered complete proteins. Other foods contain some – but not all – amino acids and are called incomplete proteins. Meat and animal products are sources of complete proteins. Vegetables, grains, beans, and fruits contain some of the essential amino acids – but not all – and are considered incomplete proteins.

There is a common misconception that these incomplete proteins must be combined with other foods that contain the missing proteins to form a complete protein, such as rice and beans. In 1971, Frances Moore Lappe's promoted this idea in her book *Diet for a Small Planet* – she recanted this theory in 1981. The American Dietetic Association (ADA) initially adopted this idea, but later realized there was no basis to this concept. In 1988, the ADA reversed its position on protein combining by stating there was no purpose for protein combining or proof it was necessary as long as the individual has a balanced diet.

#### How Much Protein Do We Need?

To figure out how much protein we need, take your weight in pounds and multiply by .37 to equal the amount of grams needed daily. For example, a 150 pound person needs 55 grams of protein. It is suggested for individuals engaged in strenuous exercises (i.e. body building) can consume up to .8 times their body weight in grams daily. Typically speaking people that live sedentary lives require less protein than those with very active lifestyles.

#### Protein Excess & Deficiency

Individuals that consume an excess amount of protein may be prone to kidney troubles, kidney stones, gallstones, and osteoporosis. Most proteins (animal based) also produce very acidic environments in the body, which herbalist believe is the cause of many illnesses. Keeping a balanced diet is the key.

People that are lacking protein are usually vegetarians – especially vegans. Since our bodies do not store protein very well, if we cease to consume proteins, the body begins to break down muscle within approximately one day to gather its requirements. Signs that you are deficient in protein include brittle hair and nails - including hair loss, fatigue, excessive sleeping, muscle wasting and slow healing wounds. The most common first sign are white ridges in the fingernails.

## Bioavailability

The bioavailability of animal protein tends to be significantly less than vegetarian sources. Therefore, many believe that vegetarians require less protein intake. It is even said that vegetarians can consume 500 calories less per day! Whey protein powder is about 18% bio-available, beef is 20% where as spirulina is 80-85% bio-available.

## Where Do We Find Proteins?

So how do we get proteins? Food is the source and most people use meat as their main form of protein. Meat-eaters are not usually deficient in protein. Here is a list of the most common animal sources and protein content:

- ❖ 6 oz steak contains 42 grams of protein.
- ❖ 6 oz of tuna contains 40 grams of protein.
- ❖ 3.5 oz of chicken breast contains 30 grams of protein.
- ❖ 4 oz ground hamburger contains 28 grams of protein.
- ❖ ½ cup of cottage cheese contains 15 grams of protein.

Vegetarians will use dairy products, vegetables, seeds and soy as their proteins. Although soy is laden with protein, the side effect of soy consumption far outweighs any benefits. Soy is a source of harmful estrogen and most oncologists will warn their patients to stay away from soy products. Soy also interrupts the signals from the thyroid to the brain and is one of the highest naturally occurring sources of harmful MSG. So, what other foods and herbs are high in protein? Here is a compilation of my favorites:

- ❖ 1 cup of quinoa is a complete protein and contains 24 grams of protein.
- ❖ 2 tablespoons of sprouted brown rice protein contains 16 grams of protein.
- ❖ 2 tablespoons of hemp seed protein contains 10-15 grams of protein and also contains Omega 3 & 6.
- ❖ ½ cup of beans contains 7-10 grams of protein.
- ❖ ¼ cup of sesame seeds contain 9 grams of protein.
- ❖ ¼ cup of almonds contains 8 grams of protein.

- ❖ 2 tablespoons of spirulina contains 8 grams of protein and is also high in Vitamin B-12, calcium, iron and many other nutrients.
- ❖ ¼ cup of flax seeds contain 8 grams of protein and are also high in Omega Fatty Acids.
- ❖ 2 tablespoons of brewer's yeast and nutritional yeast contains 8 grams of protein and high amounts of B Vitamins.
- ❖ 1 large potato contains 7-8 grams of protein.
- ❖ 2 tablespoons of buckwheat contains 7 grams of protein.
- ❖ ¼ cup of amaranth contains 7 grams of protein.
- ❖ 1 large stalk of broccoli contains 6-7 grams of protein.
- ❖ For lacto-ovo vegetarians 1 egg contains 6 grams of protein and 1 cup of milk contains 8 grams of protein.
- ❖ Keep in mind that all whole foods contain some protein. Gathering the proper amount of protein daily is fairly easy as long as a variety of foods are eaten.
- ❖ Herb Stop's Building Blocks Power Shake is a combination of Brown Rice Protein, Spirulina, Maca, Brewer's Yeast, Almond Powder, Vanilla Flavoring and is a tremendous source of vegan and gluten-free protein.

## Protein Benefit Essence Drops

Protein Benefit drops is excellent for vegetarians or for anyone having difficulties absorbing proteins. Vegetarians especially have a tendency not to get enough proteins, and the types of protein they eat usually do not assimilate completely into their system. Taking 4 drops of Protein Benefit before meals may increase protein absorption, as well as energy levels.

For more protein content information, visit [www.calorie-count.com](http://www.calorie-count.com) to search for your favorite foods. It's quite surprising how much protein is in the oddest of foods – like potatoes!

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