

WHAT YOU SHOULD KNOW ABOUT PROTEIN:

Our shake is not just for weight management. It is for nutrition, and for health. The shake when mixed with non-fat milk or soy milk delivers 20-25 grams of protein, which is the amount nutritionists recommend we get in each meal. Now body builders claim they often need more, because they are trying to build lean muscle. This may not be true, as not all proteins are created equal. This is the key reason we don't put 'grams' of protein on our shake and tout it like many store brands do. I say this because some brands pump up the 'grams' of protein by adding gelatin (great for skin/hair/nails, but not lean muscle). Some use dehydrated milk powder, some just whey. Those also are ok, but not the latest in science.

We use a combination of proteins because they act differently in the body. The soy is used because of its heart health benefits. Adequate consumption of soy in the diet can help the body lower c-reactive proteins, an indicator of inflammation and possibly heart disease. Soy is also easily digestible, and a complete protein. ***Our soy is unique in that we use a non-GMO Soy (not genetically modified), and was specially processed to remove the isoflavones that can impact estrogen.*** While those isoflavones may be beneficial, we know that women with fibroids, muscle builders, and others worry about the impact of estrogen. Non-GMO soy is about 45% more expensive than regular soy, but we chose to use it because of the concerns some people have about soy. We use a whey concentrate for fast acting hunger control. Then we use a unique whey hydrolysate, which is the latest technology and is very expensive. It helps retain lean muscle, and is very highly absorbed. While some wheys can be absorbed about 80%, whey hydrolysate is much higher. It is a pure, clean, and concentrated protein. Combine that with the Aminogen, and we have more ingredients to help build, and maintain lean muscle while promoting fast loss. So the 3 types of proteins help support heart health, bone health, muscle health, digestive health, and can help curb hunger quickly, and last too!

For athletes, it is recommended that they get protein into their body within 30 minutes after completing a workout. Protein will help the muscles repair themselves, and quicker. This is why our shake was designed to mix in water, and still taste great, and why we have it in individual serving packets. People can take the packet to the gym, and mix it in water and get it into their bodies quickly. The key points of difference are the quality of the proteins that we use (absorbability) as well as the fact that we added Aminogen®. Aminogen is a patented, and clinically tested ingredient that has been shown to help the body better utilize the protein. This way, you get more nutrition into the body and the muscle. We are also lower sodium than most brands (I've not found one yet lower than us).

Here is some information that may be useful:

A few bodybuilding and weight training coaches recommend protein intakes of 40 percent of energy; for example 40% protein, 40% carbohydrate; 20% fat. Let's take a look at this. In the 4000 calorie diet of our 100 kilogram bodybuilder, 40% protein would be 1600 calories, equivalent to 400 grams of protein at 4 calories per gram. That's 4 grams/protein/kilogram body weight/day; over four times the RDI and twice what's scientifically defensible. Not good.

Fast and Slow Proteins

How quickly amino acids get transported to blood and how quickly they then get assimilated into muscle and other tissue for repair and rebuilding is the basis of this idea. According to some enthusiasts, fast proteins such as whey are superior to slow proteins like casein. Both are derivatives of milk products. Here are some values (Bilsborough 2006):

- Egg protein 1.3 grams/hour
- Casein isolate - 6.1 grams/hour
- Whey isolate - 8-10 grams/hour

There's not much evidence that these variations make a difference to muscle building over the longer term, although whey has shown some advantage in short-term studies. Yet the other useful information that can be gleaned from the numbers above is that with an average protein absorption of, say, 7 grams per hour, a theoretical absorption is limited to around 168 grams each day (24x7). If accurate, it makes the 400 gram/day protein diets look entirely unnecessary at best.

Very high-protein diets may not be safe over time for the following reasons:

- High levels of nitrogen and amino acids can be toxic.
- High-protein diets are not safe for those people suffering from chronic kidney disease. Up to 20 percent of the population may be undiagnosed.

Sources:

Lambert CP, Frank LL, Evans WJ. Macronutrient considerations for the sport of bodybuilding. Sports Med. 2004;34(5):317-27. Review.

Bilsborough S, Mann N. A review of issues of dietary protein intake in humans. Int J Sport Nutr Exerc Metab. 2006 Apr;16(2):129-52. Review

Protein and Strength Athletes:

While endurance athletes are easy to convince of the need for a high carbohydrate, low fat diet, strength athletes are a bit harder to convince of the need for adequate carbs and moderate protein. Strength athletes have long adhered to high protein diets in order to build muscle. This idea of high protein = more muscle is a bit overstated. According to the research of sports nutritionists, strength athletes require high carbohydrate and adequate glycogen stored in the muscle. They point out that all high intensity, powerful muscle contractions (such as weight lifting) are fueled with carbohydrate. Neither fat nor protein can be oxidized rapidly enough to meet the demands of high-intensity exercise. Adequate dietary carbohydrate must be consumed on a daily basis to restore glycogen levels. In fact, research shows that high protein and high fat diets can hurt performance. An inadequate amount of carbohydrate in the diet can result in:

- Reduced muscle glycogen stores in the muscle and liver
- Decreased endurance
- Decreased maximal effort
- Decreased serum glucose levels
- Increased risk of hypoglycemia

High protein/high fat diets can also have a negative overall impact on health, including the following:

- Increased risk of certain cancers
- Increased calcium excretion and increased risk of osteoporosis
- Reduced intake of vitamins, minerals, fiber and phytochemicals

But Don't Strength Athletes Need More Protein To Build Muscle?

Research hasn't shown this. In fact most strength athletes get far more protein than is necessary to promote muscle synthesis. The current protein recommendation for optimal muscle building in a strength athlete is 1.6 - 1.7 gm protein per kg of body weight. For a athlete weighing 90 kg (200 pounds) that is a total of 145 - 154 grams of protein a day or about 3 small chicken breasts. There is no scientific evidence that more than 2.0 grams of protein per kg of body weight has any additional benefit in muscle strength or size.

So What Should an Athlete Eat?

The recommendation of sports nutritionists continues to show performance enhancing benefits. These general guidelines are:

- 12-15% of daily calories from protein.
- 25-30% of daily calories from fat.
- 55-65% of daily calories from carbohydrate.
- An athlete's nutrition plan should be individualized to meet the needs of training and competition.
- Carbohydrates are the primary fuel for intense muscular efforts, and should be the cornerstone of an athlete's diet, regardless of the sport they play.

Source: Nutrition for Sport and Exercise, 2005, Jacqueline R. Berning, Suzanne Nelson Steen, ISBN 0763737755.