Janway
CHIROPRACTIC &
ACUPUNCTURE

Protein & Whey

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Protein is a necessary component of a healthy diet. The right kind of protein and the correct consumption of it are necessary to understand how to include it in your diet.

Dietary Recommendations

The American Dietetic Association (ADA) currently recognizes a daily protein requirement of about 0.40 grams/pound of bodyweight for sedentary individuals, 0.55 to 0.65 grams/pound for athletes and 0.65 to 0.80 grams/pound for strength athletes. The ADA also states that the maximum usable amount of protein for adults is 1 gram/pound.

Traditional Sources

To get more protein in the diet, one can turn to meats, but typical sources of meat are grain-fed and high in saturated fat and inflammatory omega-6 fatty acid. This is considered unhealthy. Portions of incomplete proteins, legumes and grains can be combined to form a complete protein. This also poses health concerns as grains are high glycemic, high omega-6, and full of lectins including gluten.

Protein metabolism decreases pH, thus calcium is liberated from bones. That is why excessive protein intake can be associated with osteoporosis and stress fractures, and contributes to pro-inflammatory body chemistry. It is important to counter protein with potassium containing foods (leafy greens, potatoes, and nuts) to help maintain an alkaline pH. It may also help to supplement with calcium to decrease the effects of high protein intake.

Powders and drinks offer alternatives without significantly increasing consumption of fats, carbohydrates or calories.

Four types of protein –whey, casein, soy and/or rice – are commonly found in nutrition powders and drinks. Whey and casein are both derived from milk (protein in milk is 80% casein and 20% whey). Soy is vegetable based. The pros and cons of each will be discussed below.

Whey Protein

The majority of protein products on the market are whey based and are likely to have some milk fats (1-2 grams/serving). Whey is a "complete" protein, meaning that it contains all essential amino acids and it contains the highest branched chain amino acid (BCAA) found in nature. BCAA's tend to digest faster than casein and more completely than soy. Some human and animal studies have also suggested that whey may boost the body's ability to fight cancer.

Popular Forms of Whey

Whey contains a large amount of water, which is removed to create whey concentrate. Most of the concentrate will be protein but it also contains lactose, fat and cholesterol naturally found in whey. If concentrated without the use of heat (cold process), the concentrate may still contain the potentially beneficial immunostimulant immunoglobulins. All whey proteins should be avoided by anyone allergic to milk proteins. Many doctors express caution over whey supplementation as dairy is not considered to be part of the Paleolithic diet (considered by some to be the healthiest)

and typically stimulates insulin production. Some recommend the best sources of protein to come from lean meat (from grazing animals), or fish.

Whey isolates are typically lower in lactose and fats than a concentrate.

Whey hydrosolates are essentially predigested protein that is assimilated into the body more quickly than other non-hydrolyzed types. It is well suited for use after exercise due to increased bioavailability and less energy required for digestion.

Ion-exchanged purified whey is the most pure form of all the whey proteins. It contains the least amount of sugar among whey products and as a protein activates the release of glucagon, resulting in a minimal insulin response, thereby maintaining a more constant blood sugar level.

Casein Protein

The other milk protein, casein, is also complete and is extremely high in glutamine which is the predominant amino acid in muscles throughout the body, and important in healing intestinal mucosal tissue. Casein has a lower biological value than whey, so a lower percentage is absorbed out of the total protein consumed. Studies have shown casein to lead to superior gains in strength and over whey. This is most likely due to slower release due to slower absorption, leading to a longer release of amino acids. This is particularly beneficial throughout the night when the body enters a catabolic state.

Soy Protein

Soy is acceptable to vegetarians and provides high amounts of soy isoflavones such as genistein, daidzein, and glycitein which may help relieve symptoms of menopause.

Soy is not complete, as it lacks methionine. The manufacturing process can cause further loss of cysteine and lysine. These amino acids are important for synthesis, growth, and proper immune function. Methionnine and cysteine are used to synthesize the important, free radical quencher, glutathione.

Those with thyroid issues should avoid soy due to its potential to affect hormone balance.

Rice Protein

Rice does not provide complete protein, lacking isoleucine. Rice protein is believed to be hypoallergenic and is well absorbed.

Recently, some rice protein concentrates that came from China were used in pet foods and were found to be adulterated with melamine. Rice also tends to accumulate lead. Products containing rice were not approved in a recent ConsumerLabs Independent Test of commercially available protein products.

In Conclusion

All forms of protein have different advantages and disadvantages. With information, it is possible to make good decisions concerning the types of proteins you consume.