

# Protein

Milk protein is better known as Whey. Whey protein is a pure, natural, high quality protein from cow's milk. It is a rich source of the essential amino acids needed on a daily basis by the body.



By Dan Young



## WHEY PROTEIN

Protein comes in many forms; beef, chicken, fish, legumes and of course milk. The most Bio-Available forms of protein are from milk and egg. Egg protein sets the standard in the industry by being 100% Bio-Available while whey protein can be as low as 25% but as high as 104% on the BV scale.

Whey protein is the by-product of making cheese from Milk. It is a pure, natural, high quality protein derived originally from cow's milk. Whey has considerably less fat, sodium, lactose and calories than milk in its natural state. It is a rich source of the essential amino acids needed on a daily basis by the body. In its purest form, whey protein isolate contains little to no fat, lactose or cholesterol.

There are two main forms of whey protein differentiated only by the way the product is filtered. Concentrate has anywhere between 28% and 80% protein while isolate has 90% and higher purity. In both cases, the remaining contents outside of the protein

is fat, lactose, etc . As the protein level decreases, the amounts of fat and/or lactose increase creating a lower Bio-Availability rating for the product. Whey concentrates have a higher percentage of large peptides and therefore are not as readily absorbed by the body, but they have active ingredients, i.e. immunoglobulins which have healthy benefits. Isolate is the most Bio-Available form of protein not only because of its purity, but because it is high in di and tri peptides and low in fat and lactose. Whey is made up of molecules that are chains of Amino Acids called peptides. The human body can only absorb very small di and tripeptides. Larger peptides must be enzymatically broken down before any absorption can occur.

Bio-Whey is the purest of all the protein blends. It contains a mixture of both isolates and the highest form of concentrates available. It only contains pure whole food ingredients and no synthetic sweeteners or artificial flavors. There are even four digestive enzymes added to aid in the breaking down of any component that may cause digestive stress.

When selecting your protein supplement, read the label. Remember you get what you pay for. If the price looks like a great deal then chances are the first ingredient is a low grade of protein concentrate and the remaining ingredients are artificial or synthetic. Your body will not absorb these ingredients as easily and when it does, eventually those artificial ingredients eventually become part of you!

## SOY PROTEIN

One of the most valuable features of the soybean is that it is a complete protein

and provides ALL nine of the essential amino acids. Although this is true, it is important to understand that the plant kingdom is not as Bio-Available as whey protein isolates or even concentrates even though, we are able to isolate plant peptides.

Remember too, not all soybeans are created equal. Quality and amino acid content will vary based on soil conditions, variable growing and harvest conditions. If one essential amino acid is missing, the immune system can be depressed 30%, and many important body functions are delayed or stopped. Therefore, it is essential that each batch of soybeans be checked for amino acid content if we want to depend on the soy isolate to provide a GUARANTEED supply of the nine essential amino acids.

Rest assured that Bio-Soy Protein falls under this scrutiny. But even with these strict standards, Bio-Soy Protein Isolate is still only about 60% Bio-Available. The very best in the industry but still lower than its cousin Bio-Whey Isolate.



## Eat well and remember, you are what your food eats!

Dan Young is President and CEO of Performance Food Centers, Corp. He is certified in personal training, sports nutrition and is a triathlete. He has competed in Body Building as well as Endurance Sports Activities. Accomplished in juice bar concept and design, he applies this knowledge to whole-foods nutrition and the efficiency to serving them.