

## Whey Protein



**Suitable For Men and Women**  
**Maintains and Promotes Lean Muscle**  
**Enhances Immune System and Aide Muscle Recovery**  
**General Health and Immune Function**  
**Fast Absorbing and High in BCAAs**  
**Low in Fat Carbohydrate and Lactose**  
**After Exercise or as Healthy Snack Anytime**

### **What is Whey Protein?**

Whey protein is a naturally occurring substance derived from cows' milk. It does not contain any artificial additives or drugs. Very large quantities of milk are carefully processed to extract small levels of whey protein. There are two main types of whey protein for sports people– whey protein isolate (WPI) and whey protein concentrate (WPC).

### **Who Should Take Whey Protein?**

Whey Protein is important for all people, especially those who exercise. It aides the body's natural immune system, provides energy and assists in muscle growth. Whey protein is a high quality, complete protein and a rich source of Branch Chain Amino Acids (BCAA's), Glutamine, and essential amino acids. Whey protein is also the fastest absorbing protein available. This makes it the perfect post workout drink to repair and recover muscle tissue that is broken down by exercise.

### **How Much Protein Should be Consumed?**

The World Health Organization (WHO) recommends that people consume a minimum 0.8 grams of protein per kilo of body weight.

Those active in sports require 1.2 to 1.7 grams per kilo everyday.

People who are weight training require 1.5 to 2.0 grams of protein per kg of body weight each day.

For example, if you weigh 70 kilos and are trying to build muscle, your body will require 105-140 grams of protein per day.

It is difficult to get these levels in your diet, especially without consuming too many calories in the form of fats and simple carbohydrates.

The healthiest and most effective way to get these levels in your diet is to consume 30 grams of whey protein at least 2 or 3 times per day.

### **Is Whey Protein Helpful in Losing Weight?**

Absolutely. The majority of people who need to lose weight actually need to lose fat and increase or maintain muscle mass. Unfortunately, when we diet our bodies naturally dissolve our muscles and save our fat stores for emergencies. Whey protein is used in many diet programs because it is a very effective way to lose fat and maintain lean muscle mass. The calories contained in whey protein are far less likely to be stored as fat than those contained in complex carbohydrates, sugars and fats. The higher a person's muscle mass, the more energy they consume at rest and, therefore, the less likely they are to build up fat stores.

### **Is Whey Protein Useful to People Who Are Exercising But Not Body Building?**

Yes. Many people assume because they are not body building that they do not require whey protein. Whenever people exercise, whether weight training or engaging in cardio, their muscles risk becoming depleted of essential amino acids and broken down by the body as it attempts to recover. Whey protein prevents this damage and allows longer periods of exercise, improving general athletic performance. Only people who are training specifically to build muscle will experience overall weight gain from protein supplementation.

### **Should Vegetarians Take Whey Protein?**

Yes. Vegetarians often find it hard to get the required levels of protein in their diets, especially if they are exercising regularly. Other protein sources like tofu, eggs and dairy products are good ways to get protein but they are not as complete and as easily absorbed as whey. Whey protein does not come from animal flesh and is acceptable for any vegetarian diet that allows dairy products.

### **Are There Any Side Effects From Taking Whey Protein?**

Very few people experience any side effects from taking whey protein. If you are lactose intolerant then it is better to take whey protein isolate.

### **Is Whey Protein Suitable for Young People and the Pregnant?**

Whey protein is a good protein source for children and healthy pregnant women because it contains all the essential and non-essential amino acids. These are the building blocks of life. Furthermore, the second most abundant component in whey protein is alpha-lactalbumin, which is one of the main proteins in human breast milk. Infant formulas, including those for premature infants, often include whey protein.

### **How Are Whey Protein Concentrate and Whey Protein Isolate Different?**

**Whey protein isolate** is the purest form of whey protein and contains 90-95% protein. It has no fat or carbohydrate and contains shorter, higher quality protein chains.

**Whey protein concentrate** is available in a number of different types based on the protein content of the product, which can range from 25-89%. It usually contains small levels of carbohydrate, fat and minerals. The lower the protein content, the higher the levels of carbohydrate and fat.

### **Which is Best, Whey Protein Isolate or Whey Protein Concentrate?**

The most significant advantage of whey protein isolate is its absorbability. After exercising, protein requirements are high and whey protein isolate enters the blood stream and muscle tissues extremely quickly. Despite this, whey protein concentrate will be enough to satisfy their daily protein requirements of most sports people. For those wanting to extract an extra advantage from their diet and training or drop that extra percentage of body-fat, then whey protein isolate may be more appropriate.

### **What About Other Types of Protein Supplements?**

While whey protein is the best all round protein supplement, there are others that are also important and have advantages in specific areas.

**Calcium Caseinate** is a protein derived from milk and is more effective than whey at preventing muscle tissue breakdown. It enters the blood stream much more slowly so is ideal in the afternoon or evening to ensure your body receives a constant supply of protein throughout the night. It contains three times as much calcium as whey so is excellent for energy production, bone, tendon and muscle growth.

**Hydrolyzed Whey Isolate** is another type of whey protein that has been broken down into small segments called peptides. Hydrolyzed whey is more easily digested and is less likely to cause reactions in lactose intolerant people.

**Soy protein isolate** is an excellent supplement for women as it has been shown to reduce cholesterol levels, regulate hormone balance and ease the effects of menopause. These positive effects can also reduce the risk of osteoporosis and certain cancers (like breast and prostate). Soy protein isolate is extremely easy to digest and, like calcium caseinate and hydrolyzed lactalbumin, it has virtually no fat or carbohydrate. Ideally, athletes and sports people should consume these other protein supplements as well as whey.

### **When Is The Best Time to Consume Protein?**

The best time to take whey protein is after training, and at one or two other times during the day, preferably when not eating enough protein. Breakfast is a good time to take whey protein because your body has been fasting during the night and most people don't eat enough protein with their breakfast. Mid afternoon is another good time to consume a protein supplement because many people take a long break between lunch and dinner. This is especially important for those training in the evening because it will prevent muscle tissue breakdown and aid recovery. If you are also taking a supplement containing soy, calcium caseinate or hydrolyzed whey isolate, it is best to take this at night or in the late afternoon.

Also Take With: Creatine, L-Glutamine, L-Carnitine, BCAAs