

Whey Protein Powder Is Now A Nutritional Superstar

Bozooomer Whey Protein 26 Isolate now with PROHYDROLASE

Prohydrolase increases Protein Absorption and Amino Acid Uptake. **Prohydrolase** is designed to enhance the body's absorption of protein and amino acids to promote optimum muscle growth, recovery and weight loss.

One of the top selling (and most heavily-marketed) nutritional and sports supplements on the market today, whey protein turns up as an ingredient in everything from smoothies to nutrition bars to high-protein cereals. Personal trainers often include whey as part of their clients' diet plan, smoothie bars offer it mixed with ice and fruit, and aspiring bodybuilders, soccer moms and seniors alike seem to have found a permanent place for a tub of whey protein powder in their pantries. But what exactly is whey protein powder? Where does this stuff come from? And do you really need it?

A Brief History of Whey Protein

Whey is a natural by-product of the cheese-making process. Milk contains two primary proteins: casein and whey. Whey composes about 20% of milk proteins, and casein comprises the remaining 80%. So when you drink a glass of milk, you are consuming both casein proteins and whey proteins. During the cheese-making process, an enzyme called rennet is added to milk to curdle it. The curds are used to make cheese, and the remaining liquid is whey.

Historically, this liquid was considered more-or-less useless. Indeed, the dairy industry had so much excess whey that they struggled with disposing of the surplus. Some of it found its way into swine or cattle feed, where it appeared to produce larger, meatier cows or pigs, but a great deal of it also ended up in the landfill.

Which was really a shame, because the cattle farmers were on to something. It turns out that whey is extremely rich in three milk proteins – specifically [beta-lactoglobulin](#) (~65%), [alpha-lactalbumin](#) (~25%), and [serum albumin](#) (~8%) — which are more easily digested by the body than any other protein, including the holy grail of protein, eggs.

Enter modern technology. Scientists figured out a way (no pun intended) to “dry” and powder-ize whey, while still maintaining its basic nutritional profile. The result was whey powder, which could be reconstituted in liquids while still preserving its protein values.

Protein Is a Nutrient

Protein is a nutrient that the body needs to grow and maintain itself. Next to water, protein is the most plentiful substance in our bodies. Just about everyone knows that muscles are made of protein. Actually, every single cell in the body has some protein. In addition, other important parts of the body like hair, skin, eyes, and body organs are all made from protein.

Many substances that control body functions, such as enzymes and hormones, also are made from protein. Other important functions of protein include forming blood cells and making antibodies to protect us from illness and infections.

Amino Acids

Proteins are made from simpler substances called amino acids. There are 20 amino acids in the protein that we eat every day. The body takes these amino acids and links them together in very long strings. This is how the body makes all of the different proteins it needs to function properly. Nine of the amino acids are called essential because bodies cannot make them. These essential amino acids must come from the foods we eat.

Hormone insulin regulates blood glucose (sugar). Insulin is a very small protein. Many proteins are made of thousands of amino acids strung together. Proteins can be very complex because of all the combinations of amino acids that make up the chains.

Convenience

Whey protein powder is also extremely convenient. It's highly portable, since all it requires is the addition of water to reconstitute it. And because it's made from milk, even with water alone, it takes on a milky flavor and consistency (especially with the concentrates) that you just can't typically duplicate in a soy protein powder.

Whey protein is also light (so it travels well), doesn't require refrigeration and can be added to all kinds of foods, including [skim milk](#), instant oatmeal and even healthy cookies and pancakes. This makes it an ideal in-between meal snack that you can literally whip up at your desk at work, take in a shaker to the gym with you, or pack in your laptop bag when you are flying.

Absorption

Whey protein has the highest absorption-rate of any protein food source. This is known as the [Biological Value](#) or BV, which is an indication of how much protein in a given food is actually available to the body to utilize. Whole eggs have a BV of 93.7, and whey protein has a BV of 100 (the higher the BV, the better.) It's important to remember that BV only measures the potential absorption of protein against other foods, not how much of the protein you will actually absorb, which can be impacted by other foods that you consume with the protein, as well as how much protein is already pooled in your body from earlier meals (the body can only utilize a certain amount of protein at a time.)

Not only does the body potentially absorb more protein from whey, it digests whey more quickly than eggs, meat, or dairy. This makes it an ideal post-workout food, when it's important to provide extra protein to the body to aid in recovery, especially after weight or resistance training. For these same reasons, whey makes a good addition to breakfast, since protein levels will typically be low after eight hours of sleep.

WHEY PROTEIN ISOLATE

Whey isolate is produced by passing whey proteins through ceramic filters that strip out certain compounds, like fat (lipids) and lactose sugars. The result is whey which has a higher concentration of protein.

Practically-speaking, this means you need fewer “scoops” of whey isolate than whey concentrate to consume the same level of protein. And because much of the lactose is filtered out, there are fewer digestive problems. Whey isolate also typically mixes slightly better than concentrates.

WHEY PROTEIN-26 ISOLATE – WEIGHT LOSS

Included is our Whey Protein-26 Isolate as part of your natural weight loss plan. As you learn more about this awesome protein, remember that you can even add fruit and yogurt to be used as a meal replacement during the day between meals.

DID YOU KNOW? Recent studies by Dr. Donald Layman, a professor at the University of Illinois, have highlighted the role of the essential amino acid leucine in improving body composition. High quality whey protein is rich in leucine to help preserve lean muscle tissue while promoting fat loss. Whey protein contains more leucine than milk protein, egg protein and soy protein. (Source: The Whey Protein Institute)

The retention of lean muscle during weight loss is related to the leucine's ability to stimulate muscle synthesis. The rate of digestion of protein synthesis also depends on the speed of protein absorption. Meaning, fast absorbing protein like our Protein-26 Isolate has an anabolic effect. The high leucine content of whey proteins coupled with fast absorption makes

Whey Protein-26 Isolate ideal as a protein supplement during weight loss.

Your real goal here is to lose body fat and change your body fat percentage to favor lean tissue, including whey protein in your diet could help you become leaner overall ... and yes, that would include losing some belly fat.

Our Whey Protein is fat-free; sugar-free; cholesterol-free and less than 1 gram of carbohydrates.

WHY IS WHEY PROTEIN POWDER BENEFICIAL FOR SENIORS?

Although whey supplements are most commonly used as nutritional support to get more protein, they may also provide specific benefits for senior citizens. Whey protein may help in treating certain health conditions that typically affect the elderly, such as cataracts and impaired mental function. Before you begin taking whey protein supplements, talk with your doctor about the proper dosage and possible risks.

FUNCTION

Derived from milk, whey protein contains highly digestible amino acids, says the University of Pittsburgh Medical Center. Whey protein appears to increase glutathione levels in the body as well. Glutathione is a crucial substance that causes antioxidant actions in your body to naturally fight free radicals, which cause damage to your body's cells. Glutathione also protects your body from toxins, preventing damage and improving excretion of the toxins. People with certain types of cancer, cataracts, diabetes and liver disease tend to have deficiencies of glutathione.

BENEFITS

Seniors who suffer from osteoporosis, cancer and an impaired immune system could benefit from taking whey protein supplements, says the University of Michigan Health System. Whey could help support cancer treatment, as well as treat cataracts, diabetes and viral hepatitis, notes the University of Pittsburgh Medical Center. Elderly individuals who have impaired mental function could experience improvements from taking whey protein.

POTENTIAL

In addition to providing protein, whey supplements can potentially help improve physical performance and support HIV treatments, says the University of Pittsburgh Medical Center. Whey could also help relieve stress and promote weight loss, notes the University of Michigan Health System. Whey's impact on glutathione levels might offer a wide array of other health benefits, due to the increased antioxidant actions in your body.

WARNING

Don't take whey protein supplements if you're allergic to milk and other dairy products, and take no more than the amount recommended by your physician or registered dietitian, warns the University of Michigan Health System.

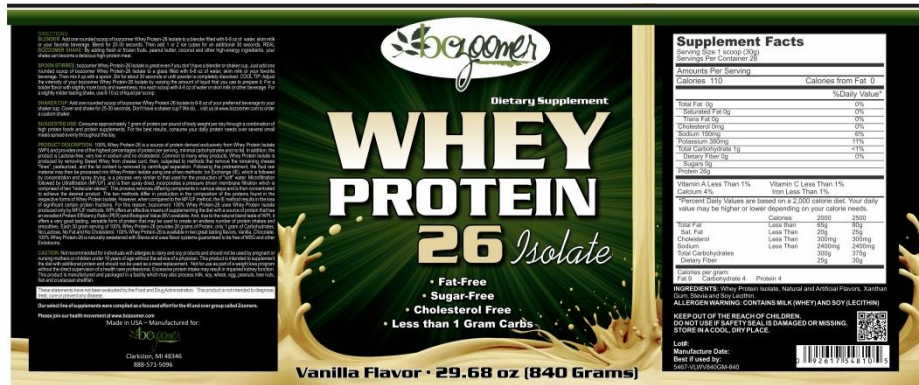
When Is Whey Powder Not A Good Idea?

If you have a history of kidney disease, you'll typically want to restrict your consumption of protein. So whey supplementation will probably not be right for you.

In healthy adults, with no kidney disease, consumption of whey protein in excess of the recommended daily allowance appears to be safe, and there is no conclusive research to demonstrate that large amounts of protein in these populations have adverse health risks or leads to kidney damage.

Also, avoid substituting whey protein for all of your meals or as a regular substitute for other protein sources or whole meals. If you are consuming more than 1-3 servings of whey a day, you are probably short-changing yourself nutritionally. You need to eat whole meals and other sources of protein which naturally contain critical vitamins and minerals that may not be present in whey alone. Remember, whey protein is a way to supplement your regular whole food meals, not a replacement for them.

Finally, be aware that whey manufacturers may add other supplements such as creatine or arginine, or high amounts of sugar (in weight gain powders) to their products. You need to look carefully to make sure the product is labeled “100% Whey Protein” and check the ingredient list for things like creatine, lipids or sugar (it will often say dextrose or maltodextrin, which are simple sugars.) Also, most 100% whey protein powders that don't contain these types of additives will have less than 5 grams of carbohydrates and sugar. If they exceed that, the manufacturer may be adding sugar into the product. So it pays to read nutritional labels.



AVAILABLE IN VANILLA & CHOCOLATE FLAVORS

EXPLAINING PROTEIN DIGESTION

Whey protein Isolate is one of the richest sources of all nine essential amino acids called essential amino acids because the body is unable to produce on its own¹. However, whey protein must first be processed into a usable form, which includes essential amino acids and beneficial peptides (i.e., Di and Tri-peptides).

To be effective, protein must be broken down into a smaller particle size within approximately 90 minutes of consumption³. This transit time represents the time from which the whey powder passes from the stomach through the small intestine where digestion/absorption primarily occurs. From there it will be assembled into muscle protein (a bio-usable form).

To imagine this process, think of a large object being moved into a room through a door that is too small. The table must first be broken down to pass through the doorway before it can be reassembled and used. Undigested whey protein will simply be excreted from the body, resulting in wasted amino acids.

In addition, when whey protein is not broken down into the smallest composition, it creates large peptides that can cause discomfort such as bloating, nausea and cramping. These symptoms should not be confused with lactose intolerance. Lactose is not present in whey isolates; therefore, the underlining cause of the discomfort is peptide sensitivity.

DIGEST PROTEIN INTO A BIO-AVAILABLE FORM

Takes full advantage of the availability of essential amino acids for building muscle and improving muscle recovery and helps promote weight loss.

REDUCES DISCOMFORT

Greatly reduces digestive caused when protein is not broken down into the smallest composition.

MAXIMIZES PERFORMANCE

Maximizes the performance benefit of protein supplements, assisting the body in absorbing more protein rather than excreting it.

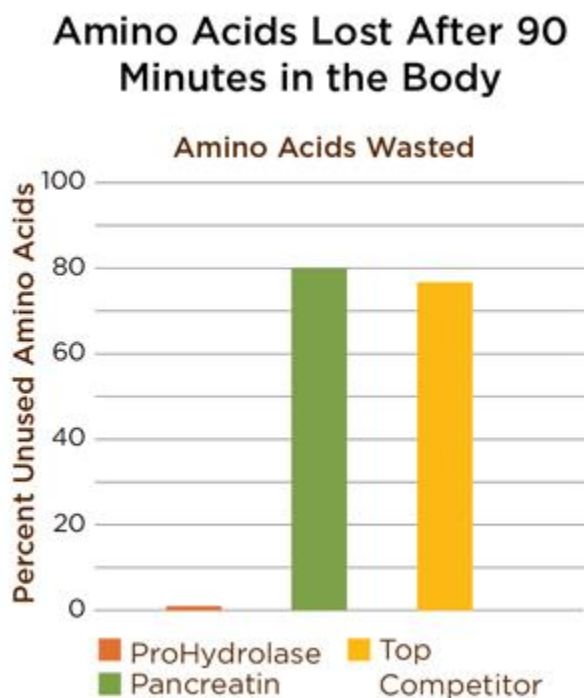
DIGEST VARIOUS PROTEINS

Effective at digesting various forms of protein including whey, soy, egg, casein, hemp and pea.

Protein Digestion Explained

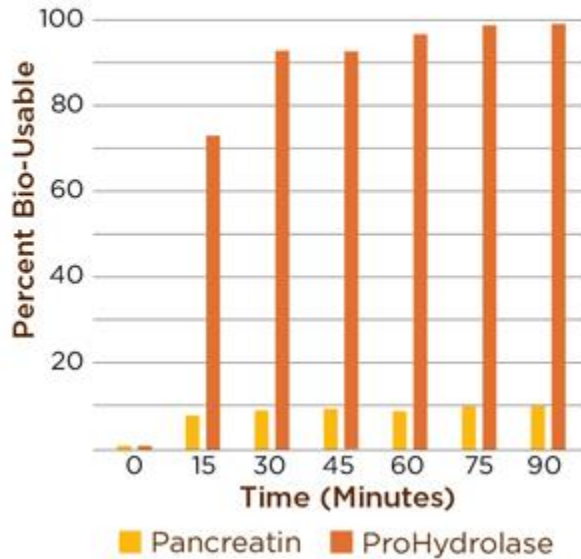
Perhaps the biggest reason why we need to supplement with protein when we're looking to sculpt our ideal physique is that it provides a constant dose of muscle-building essential amino acids that our body is not able to produce on its own.

However, protein needs to be broken down into small particles first in order to get to these essential amino acids. If this does not occur in time, the remaining protein can create large peptides that can cause side effects like bloating and nausea. This is why it is essential that protein digestion is improved to the best possible level.



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Breakdown of Whey Isolate Using Pancreatin Enzymes Alone and with ProHydrolase



Whey Protein-26 Isolate Other Ingredients

What is Soy Lecithin? Lecithins are oily substances that occur naturally in plants (soybeans) and animals (egg yolks). Soy lecithin is extracted from soybeans either mechanically or chemically. It's actually a byproduct of the soybean oil production. Some people use it as a supplement because it's high choline content. Choline is micronutrient that is good for heart health and brain development. But it's

not the reason soy lecithin is used as an additive in foods. It possesses emulsification properties. This means it can keep a candy bar "together" by making sure that the cocoa and the cocoa butter don't separate. It is also used in bakery items to keep the dough from sticking and to improve its ability to rise.

Most people with soy allergies needn't worry about products containing soy lecithin, because it is derived from the soybean oil, whereas the allergy itself relates to the soy protein.

What is Whey Protein Isolate? Produced by removing Sweet Whey from cheese curd, then, subjected to methods that remove the remaining cheese “fines”, pasteurized, and the fat content is removed by centrifugal separation. Following this pretreatment, the fluid raw material may then be processed into Whey Protein Isolate using one of two methods: Ion Exchange (IE), which is followed by concentration and spray drying, is a process very similar to that used for the production of “soft” water. Microfiltration followed by Ultrafiltration (MF/UF), and is then spray dried, incorporates a pressure driven membrane filtration which is comprised of two “molecular sieves”. This process removes differing components in various steps and is then concentrated to achieve the desired product. The two methods differ in production in the composition of the proteins found in the respective forms of Whey Protein Isolate. However, when compared to the MF/UF method, the IE method results in the loss of significant certain protein fractions. For this reason, bozoomers’ 100%Whey Protein-26 uses Whey Protein Isolate produced only by MF/UF methods. WPI offers an effective means of supplementing the diet with a source of protein that has an excellent Protein Efficiency Ratio (PER) and Biological Value (BV) available.

What is Xanthan Gum? Xanthan gum is a thickening agent used in many foods, medications and cosmetic products. Produced by fermenting simple sugar with bacteria, xanthan gum has strong binding properties, which makes it an effective choice as an emulsifying agent. It also is naturally gluten-free. Xanthan gum swells in the intestine, which stimulates the digestive tract to push stool through. It also might slow the absorption of sugar from the digestive tract and work like saliva to lubricate and wet the mouth in people who don't produce enough saliva. Xanthan gum is produced by feeding sugar to the bacteria xanthomonas campestris. The bacteria take in the sugar and metabolize it into a more complex carbohydrate, in this case xanthan gum. The structure of the new carbohydrate has unique properties that make it an efficient thickener or stabilizer when combined with other ingredients.

What is Stevia? Stevia is a plant that is native to South America. It is probably best known as a source of natural sweeteners. In fact, native people in South America have used stevia as a sweetener for hundreds of years. But the leaves are also used to make medicine. In foods, stevia is used as a non-caloric sweetener and flavor enhancer.

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