

The 7 Best Types of Protein Powder

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Protein powders are very popular among health-conscious people.

There are numerous types of protein powder made from a wide variety of sources.

As there are so many options, it can be difficult to determine which will provide optimal results.

Here are 7 of the best types of protein powder.

What Are Protein Powders?

Protein powders are concentrated sources of protein from animal or plant foods, such as dairy, eggs, rice or peas.

There are three common forms:

Protein concentrates: Produced by extracting protein from whole food using heat and acid or enzymes. These typically supply 60–80% protein, with the remaining 20–40% composed of fat and carbs.

Protein isolates: An additional filtering process removes more fat and carbs, further concentrating the protein. Protein isolate powders contain about 90–95% protein.

Protein hydrolysates: Produced by further heating with acid or enzymes — which breaks the bonds between amino acids — hydrolysates are absorbed more quickly by your body and muscles.

Hydrolysates appear to raise insulin levels more than other forms — at least in the case of whey protein. This can enhance your muscle growth following exercise

Some powders are also fortified with vitamins and minerals, especially calcium.

However, not everyone benefits from these powders. If your diet is already rich in high-quality protein, you likely won't see much difference in your quality of life by adding protein powder.

However, athletes and people who regularly lift weights may find that taking protein powder helps maximize muscle gain and fat loss.

Protein powders can also aid individuals who struggle to meet protein needs with food alone, such as people who are ill, older adults and some vegetarians or vegans.

Summary

Protein powders come from a variety of sources and are available in several formulations. People use them to increase muscle mass, improve overall body composition and help meet their protein needs.

1. Whey Protein

Whey protein comes from milk. It is the liquid that separates from the curds during the cheesemaking process. It's high in protein but also harbors lactose, a milk sugar that many people have difficulty digesting.

While whey protein concentrate retains some lactose, the isolate version contains very little because most of this milk sugar is lost during processing.

Whey digests quickly and is rich in branched-chain amino acids (BCAAs). Leucine, one of these BCAAs, plays a major role in promoting muscle growth and recovery after resistance and endurance exercise (2)

When amino acids are digested and absorbed into your bloodstream, they become available for muscle protein synthesis (MPS), or the creation of new muscle.

Studies reveal that whey protein can help build and maintain muscle mass, assist athletes with recovery from heavy exercise and increase muscle strength in response to strength training

One study in young men showed that whey protein increased MPS 31% more than soy protein and 132% more than casein protein following resistance exercise

However, a recent 10-week study found that postmenopausal women had a similar response to resistance training whether they took whey protein or a placebo

Other studies in normal-weight, overweight and obese individuals suggest that whey protein may improve body composition by decreasing fat mass and increasing lean mass

What's more, whey protein seems to reduce appetite at least as much as other types of protein

One study gave lean men four different types of liquid protein meals on different days. The whey-protein meals led to the largest decrease in appetite and the greatest reduction in calorie intake at the next meal

Some studies suggest that whey protein may also reduce inflammation and improve certain heart health markers in overweight and obese people

Summary

Whey protein is quickly digested, providing a rapid rise in amino acids that may help increase muscle mass and strength. It may also reduce appetite and promote fat loss.

2. Casein Protein

Like whey, casein is a protein found in milk. However, casein is digested and absorbed much more slowly.

Casein forms a gel when it interacts with stomach acid, slowing down stomach emptying and delaying your bloodstream's absorption of amino acids.

This results in a gradual, steadier exposure of your muscles to amino acids, reducing the rate of muscle protein breakdown .

Research indicates that casein is more effective at increasing MPS and strength than soy and wheat protein — but less than whey protein

However, one study in overweight men suggests that when calories are restricted, casein may have an edge over whey in improving body composition during resistance training

Summary

Casein is a slow-digesting dairy protein that may reduce muscle protein breakdown and promote muscle mass growth and fat loss during calorie restriction.

3. Egg Protein

Eggs are an excellent source of high-quality protein.

Of all whole foods, eggs have the highest protein digestibility-corrected amino acid score (PDCAAS).

This score is a measure of a protein's quality and digestibility

Eggs are also one of the best foods for decreasing appetite and helping you stay full for longer

However, egg protein powders are typically made from egg whites rather than whole eggs. Although the protein quality remains excellent, you may experience less fullness because the high-fat yolks have been removed.

Like all animal products, eggs are a complete protein source. That means they provide all nine essential amino acids that your body can't make itself.

What's more, egg protein is second only to whey as the highest source of leucine, the BCAA that plays the largest role in muscle health

Keep in mind that egg-white protein hasn't been studied as much as whey or casein.

In one study, it demonstrated less potential to reduce appetite than casein or pea protein when consumed before a meal.

In another, female athletes taking egg-white protein experienced similar gains in lean mass and muscle strength as those supplementing with carbs

Egg-white protein could be a good choice for people with dairy allergies who prefer a supplement based on animal protein.

Summary

Egg-white protein is high in quality and easily digested — though it may not keep you feeling as full as other protein powders.

4. Pea Protein

Pea protein powder is especially popular among vegetarians, vegans and people with allergies or sensitivities to dairy or eggs.

It's made from the yellow split pea, a high-fiber legume that boasts all but one of the essential amino acids.

Pea protein is also particularly rich in BCAAs.

A rat study noted that pea protein is absorbed slower than whey protein but faster than casein. Its ability to trigger the release of several fullness hormones may be comparable to that of dairy protein

In a 12-week study in 161 men doing resistance training, those who took 1.8 ounces (50 grams) of pea protein daily experienced similar increases in muscle thickness as those who consumed the same amount of whey protein daily

In addition, a study revealed that humans and rats with high blood pressure experienced a decrease in these elevated levels when they took pea protein supplements

Though pea protein powder shows promise, more high-quality research is needed to confirm these results.

Summary

While studies are limited, pea protein may promote fullness and increase muscle growth as effectively as animal-based proteins.

5. Hemp Protein

Hemp protein powder is another plant-based supplement that is gaining popularity.

Although hemp is related to marijuana, it only contains trace amounts of the psychoactive component THC.

Hemp is rich in beneficial omega-3 fatty acids and several essential amino acids. However, it is not considered a complete protein because it has very low levels of the amino acids lysine and leucine.

While very little research exists on hemp protein, it appears to be a well-digested plant protein source

Summary

Hemp protein is high in omega-3s and seems to be easily digested. However, it is low in the essential amino acids lysine and leucine.

6. Brown Rice Protein

Protein powders made from brown rice have been around for some time, but they are generally considered inferior to whey protein for building muscle.

Although rice protein contains all of the essential amino acids, it is too low in lysine to be a complete protein.

There isn't a lot of research on rice protein powder, but one study compared the effects of rice and whey powders in fit, young men.

The eight-week study demonstrated that taking 1.7 ounces (48 grams) of rice or whey protein daily resulted in similar changes in body composition, muscle strength and recovery

However, more research on brown rice protein is needed.

Summary

Early research on brown rice protein powder suggests it may have beneficial effects on body composition. However, it is low in the essential amino acid lysine.

7. Mixed Plant Proteins

Some protein powders contain a blend of plant sources to provide your body with all the essential amino acids. Two or more of the following proteins are usually combined:

Brown rice

Pea

Hemp

Alfalfa

Chia seeds

Flax seeds

Artichoke

Quinoa

Due in part to their high fiber content, plant proteins tend to digest slower than animal proteins. Although this may not pose a problem for many people, it can limit the amino acids your body can use immediately after exercise.

One small study provided resistance-trained young men with 2.1 ounces (60 grams) of whey protein, a pea-rice protein blend or a pea-rice blend with supplemental enzymes to accelerate digestion (39

The enzyme-supplemented powder was comparable to whey protein in terms of the speed at which amino acids appeared in the blood.

Summary

Several protein powders comprise a mixture of plant proteins. Adding enzymes to these plant-protein mixtures may increase their digestion and absorption.

Which Protein Powders Are Best?

Although all protein powders provide a concentrated source of protein, certain types may be more effective at giving your body what it needs.

For Muscle Gain

Research has consistently confirmed whey protein's ability to promote muscle mass and recovery. While whey concentrate is cheaper than whey isolate, it contains less protein by weight.

Here are a few suggestions for whey protein powders:

Optimum Nutrition Whey Protein: This whey protein isolate plus concentrate provides 24 grams of protein and 5.5 grams of BCAAs per serving.

EAS 100% Whey Protein: This whey protein concentrate provides 26 grams of protein and 6.3 grams of BCAAs per serving.

Dymatize Nutrition Elite Whey Protein: This combined concentrate and isolate gives 24 grams of protein and 5 grams of BCAAs per scoop.

For Weight Loss

Casein protein, whey protein or a combination of the two may be the best protein supplement for promoting fullness and fat loss:

Jay Robb Grass-Fed Whey Protein: This whey protein isolate packs 25 grams of protein per scoop.

Optimum Nutrition 100% Casein Protein: This casein protein offers 24 grams of protein per scoop.

EAS Whey + Casein Protein: This combination of whey and casein protein concentrates boasts 20 grams of protein per scoop.

For Vegetarians and Vegans

Here are a few high-quality protein powders containing single or mixed 100%-vegan plant proteins:

Vega One All-in-One Nutritional Shake: This blend of pea protein, flax seeds, hemp and other ingredients has 20 grams of protein per scoop.

MRM Veggie Elite: This blend of pea protein and brown rice protein with vegan digestive enzymes yields 24 grams of protein per scoop.

Summary

It's best to choose a protein powder based on your dietary preferences, food tolerances and health and fitness goals.

The Bottom Line

Protein powders can provide high-quality protein in a concentrated, convenient form.

Although not everyone needs protein powder supplements, they can assist you if you do strength training or cannot meet your protein needs with diet alone.