

Protein Powders: A Complete Guide for Better Health

Analysis by [Dr. Joseph Mercola](#)

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STORY AT-A-GLANCE

- › Most people need about 0.8 grams of protein per pound of ideal body weight daily, with animal-based sources typically providing the best protein quality
- › Protein powders can aid in weight management, muscle growth, and convenient protein intake, but are not necessary for everyone and should supplement, not replace, whole foods
- › About one-third of the body's protein is collagen, so including collagen sources or supplements in protein intake is beneficial for skin, bone, and joint health
- › While whey protein is popular for muscle building, recent research suggests it may have negative long-term health effects, making alternatives or moderate use worth considering
- › When choosing a protein powder, look for minimal ingredients, avoid artificial additives, consider certifications like NSF Certified for Sport, and select types that align with individual dietary needs and health goals

Protein is a crucial part of your diet. It's the building blocks your body use to make muscles, skin, and even hormones. But sometimes, getting enough protein from food alone can be tough. That's where protein powders come in handy.

Protein powders are concentrated sources of protein that come from various foods. They're dried and ground into a fine powder that you can mix with liquids or add to

foods. There are many different types of protein powders, each with its own benefits and drawbacks.

Before we dive into the world of protein powders, it's important to understand how much protein you need. Most people need about 0.8 grams of protein for every pound of their ideal body weight. So, if your ideal weight is 150 pounds, you'd need about 120 grams of protein each day. This might sound like a lot, but with the right diet and possibly some help from protein powders, it's totally doable.

It's also worth noting that the best protein sources are usually animal-based. This includes things like meat, fish, eggs, and dairy products. These foods contain all the essential amino acids (the building blocks of protein) that your body needs.

Another important fact to keep in mind is that about one-third of the protein in your body is a special type called collagen. Collagen is important for healthy skin, bones, and joints. Because of this, it's a good idea to make sure that about one-third of your protein intake comes from collagen sources or collagen supplements.

Benefits of Protein Powders

Protein powders can be helpful in a few different ways, including:

- 1. Weight management** — Protein can help you feel full for longer. This helps you eat less overall, which can be great if you're trying to manage your weight.
- 2. Muscle growth and repair** — Protein is essential for building and repairing muscles. This is especially important after you exercise when your muscles need to recover and grow stronger.
- 3. Convenience** — Let's face it, sometimes life gets busy. Protein powders offer a quick and easy way to boost your protein intake without having to cook a full meal.

Scientists have investigated these benefits too. A systematic review of 2,077 studies published in the Nutrition Reviews journal in 2018,^{1,2} found that protein supplements

help reduce body fat and keep lean muscle mass when taken with meals and combined with strength training.

Do You Need Protein Powder?

Whether or not you need protein powder depends on your lifestyle and what you eat. If you eat a balanced diet with plenty of whole foods, you might be getting enough protein already.

But some people, like very active individuals or athletes, might benefit from adding protein powder to their diet. The International Society of Sports Nutrition says that while it's possible for active people to get enough protein from food, protein supplements can be a practical way to make sure they're getting enough, especially for athletes who train a lot.³

Animal vs Plant-Based Protein Powder

When it comes to choosing between animal and plant-based protein powders, there are a few things to think about:

- 1. How easy they are to digest** — Animal-based proteins are usually easier for your body to digest and use compared to plant-based proteins.
- 2. What they're made of** — Animal-based proteins typically contain all the essential amino acids your body needs, while some plant-based proteins might be missing one or more.
- 3. How well they build muscle** — Good-quality animal proteins have been reported to have a greater ability to enhance the rate of muscle protein synthesis and support muscle mass compared to plant-based proteins in most studies.⁴ The International Society of Sports Nutrition (ISSN) recommends that athletes focus on whole food sources of protein that contain all the essential amino acids (EAAs) to stimulate muscle protein synthesis.⁵

Animal-Based Protein Powder Sources

Commonly used animal-based protein powder sources include:

- **Whey protein powder** — Whey protein is one of the most popular protein supplements. It comes from milk and contains all the essential amino acids. Your body absorbs it quickly, which is great for building muscle. However, it's important to know that some recent research has suggested that whey protein might not be great for long-term health.⁶

A 2024 scientific review found long-term whey consumption raised the risk of liver and kidney damage, particularly with long-term high-dose use in inactive individuals. Other noted concerns included potential changes in gut microbiota, increased acne occurrence, effects on bone mass, and some emotional and behavioral alterations.

The review stressed the importance of caution when using whey protein supplements, especially for those with existing liver or kidney issues. So, while it might be good for building muscle in the short term, it might not be the best choice if you want to optimize your health in the long run.

- **Casein protein powder** — Casein is another protein that comes from milk. Unlike whey, your body digests casein slowly. This means it releases amino acids into your blood over a longer time. Some people like to take casein before bed to support muscle growth while they sleep.
- **Bone broth protein powder** — Bone broth protein powder is made by simmering animal bones and tissues to get all the nutrients out, then drying the liquid into a powder. It's rich in collagen, which is great for joint health, and also contains various minerals.
- **Collagen powder** — Collagen powder is made from animal tissues. It's the most common protein in your body and is crucial for healthy skin, bones, and joints. While collagen doesn't have all the essential amino acids, it's still a valuable supplement.

Remember, about one-third of the protein in our bodies is collagen, so it's important to include it in your protein intake.

Plant-Based Protein Powder Sources

Useful plant-based protein powder sources include:

- **Pea protein powder** — Pea protein comes from yellow peas and is popular among vegetarians and vegans. A study in 2015 found that pea protein was just as good as whey protein for increasing muscle size when combined with strength training.⁷
- **Hemp protein powder** — Hemp protein is made from ground hemp seeds. It contains all nine essential amino acids and is also rich in healthy fats, including omega-3 and omega-6 fats.

Concentrates, Isolates and Hydrolysates Explained

Protein powders come in different forms, each with its own characteristics:

1. **Concentrates** — These are about 80% protein by weight, with the rest being fats, carbs, and other nutrients.
2. **Isolates** — These are more refined, containing over 90% protein. They have less fat and lactose, which might make them a better choice for people who have trouble digesting lactose.
3. **Hydrolysates** — These proteins have been pre-digested, making them easier and faster for your body to absorb.

Which Is Best for You?

Choosing the best protein powder depends on what you need and what your goals are. Here are some things to think about:

- 1. What you can eat** — If you're vegan or vegetarian, plant-based proteins are your best bet. If you have trouble digesting lactose, you might want to avoid whey and casein or choose isolates, which have less lactose.
- 2. Your fitness goals** — If you're looking to build muscle, a fast-absorbing protein like whey might be helpful. For weight loss, a mix of proteins that includes casein might help you feel full for longer.
- 3. How well you digest it** — If you have digestive issues, you might find hydrolyzed proteins easier to handle.
- 4. Long-term health** — Given the potential downsides of whey protein for long-term health, you might want to consider other options or use whey in smaller amounts.
- 5. Collagen needs** — Remember that about one-third of your protein supplement should ideally be collagen to support overall body health.

Potential Downsides of Protein Powders

While protein powders can be helpful, there are some potential problems to be aware of:

- 1. Eating too much** — Consuming too much protein can put stress on your kidneys and might lead to dehydration or digestive problems. A review published in 2021 found that too much whey protein supplementation, especially when combined with not exercising much, might negatively affect kidney and liver function.⁸
- 2. Quality concerns** — Some protein powders might contain unwanted additives like added sugars or artificial flavors. There have also been concerns about the presence of heavy metals in some protein powders.
- 3. Missing out on other nutrients** — If you rely too heavily on protein powders, you might miss out on other important nutrients found in whole food protein sources.
- 4. Digestive issues** — Some people might have trouble digesting certain types of protein powders, especially those containing lactose.

How to Use Protein Powders

According to the International Society of Sports Nutrition, "The optimal time period during which to ingest protein is likely a matter of individual tolerance, since benefits are derived from pre- or post-workout ingestion; however, the anabolic effect of exercise is long-lasting (at least 24 h), but likely diminishes with increasing time post-exercise."⁹ For weight loss, spreading protein intake throughout the day might help control appetite.

One of the best ways to use protein powders is to combine them with healthy carbs. This combination can help your body use the protein more effectively and provide energy for your activities.

White rice is one of the best and most well-tolerated carb sources for most people. It's easy to digest and doesn't cause problems for most people. You can mix your protein powder into a shake and have it with a serving of white rice for a balanced post-workout meal. Another great carb source is raw milk, although not everyone can tolerate it well. If you can digest raw milk without problems, it can be a nutritious addition to your protein shakes.

For a more nutritious and flavorful option, try blending your protein powder into smoothies along with your favorite fruits and vegetables. This not only enhances the taste but also increases the overall nutritional value of your drink.

Here's a fun and delicious way to use protein powder: homemade ice cream! If you have a Nutri-Creami (a special ice cream maker), you can make a healthy protein-packed ice cream. Here's a simple recipe:

Homemade Protein-Packed Ice Cream

Procedure

1. Mix 1 cup of raw milk (or any milk you tolerate well) with your chosen protein powder.

2. Add 3 tablespoons of maple syrup for sweetness.
3. Add 1 egg yolk for extra nutrition and creaminess.
4. Mix well and freeze in the Nutri-Creami according to the manufacturer's instructions.

This creates a delicious, protein-rich ice cream that's much healthier than store-bought versions. The Nutri-Creami is a game-changer for anyone who loves creamy, delicious frozen desserts. It's not just an ice cream maker – it's a versatile frozen treat creator that can whip up everything from velvety ice cream to luscious sorbets and even creamy frozen yogurt!

What sets the Nutri-Creami apart is its unique processing method. Instead of churning like traditional ice cream makers, it uses a special blade to shave and reconstitute frozen ingredients into a smooth, creamy texture. This means you can create healthier frozen treats using whole fruits, nuts, and even vegetables! Imagine indulging in a creamy banana "ice cream" made with nothing but frozen bananas, or a rich chocolate avocado gelato that's both decadent and nutritious.

Nutri-Creami is also incredibly user-friendly. Its compact size makes it perfect for any kitchen, and cleanup is a breeze thanks to dishwasher-safe parts. Plus, you can experiment with endless flavor combinations to create your own unique frozen masterpieces. Whether you're health-conscious, dairy-free, or just love trying new desserts, the Nutri-Creami opens up a world of frozen treat possibilities.

If you're feeling creative in the kitchen, protein powder can also be a great addition to your baking repertoire. Incorporate it into recipes for muffins, pancakes, or other baked goods to boost their protein content while maintaining a delicious taste. For a protein-packed breakfast or snack, consider stirring some powder into your morning oatmeal or mixing it into a bowl of yogurt.

These methods provide a satisfying way to increase your protein intake while enjoying familiar foods. With so many options available, protein powder can easily become a

versatile staple in your daily nutrition plan, allowing you to meet your protein needs in diverse and enjoyable ways.

Choosing a High-Quality Protein Powder

When choosing a protein powder, it's important to be mindful of several factors to ensure you're getting a high-quality product that meets your specific needs. First and foremost, seek out powders that contain minimal ingredients and are free from artificial additives. This approach helps you avoid unnecessary fillers and potentially harmful substances. If possible, consider opting for organic varieties, as these can help reduce your exposure to potential contaminants.

To further ensure the quality and safety of your protein powder, look for products that have been certified by reputable organizations such as NSF Certified for Sport or Informed Choice. These certifications provide an extra layer of assurance regarding the product's purity and quality.

It's crucial to carefully read the labels of any protein powder you're considering. This allows you to verify that the product aligns with your specific dietary requirements, such as being lactose-free or vegan.

Lastly, you might want to consider incorporating two different types of protein powder into your routine. One option could focus on muscle protein synthesis, such as a whey or casein protein, which are complete animal proteins. The other could be a collagen protein powder, which, while also derived from animals, offers different benefits like supporting joint, skin, and connective tissue health.

This dual approach can help you address multiple nutritional needs and potentially enhance your overall health and fitness outcomes.

Conclusion

Protein powders can be a useful tool for increasing your protein intake, supporting muscle growth, and managing weight. However, they're not necessary for everyone and should be used as a supplement to a healthy diet, not a replacement for whole foods.

Remember that most people need about 0.8 grams of protein per pound of ideal body weight, and the best protein sources are typically animal-based. Also, keep in mind that about one-third of the protein in your body is collagen, so it's a good idea to include collagen in your protein supplementation.

Ultimately, the best protein powder for you depends on your individual needs, dietary preferences, and health goals. By understanding the different types of protein powders available, their benefits, and potential drawbacks, you can make an informed decision about whether and how to incorporate them into your diet.

Whether you're an athlete looking to build muscle, someone trying to manage their weight, or just interested in ensuring you're getting enough protein in your diet, protein powders can be a convenient and effective tool. But they're just one piece of the puzzle. A balanced diet rich in whole foods, regular exercise, and overall healthy lifestyle habits are all crucial components of achieving.

In the end, protein powders are a tool — a potentially very useful one — but they're not a magic solution. They work best when used as part of a balanced diet and healthy lifestyle. Whether you choose an animal-based protein, a plant-based option, or a combination including collagen, the most important thing is that you're meeting your body's protein needs in a way that works for you.

Sources and References

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