

Protein Supplements

Protein supplements can be used to meet protein needs, gain weight, obtain essential amino acids, and much more. Read below to learn more about protein supplements!

Quick Facts

- Protein supplements are commonly used for sports performance but can be used for those who consume too little protein. Protein supplements can also supply the essential amino acids that are needed by the body; however, foods can supply all of the necessary protein and amino acids required by the body.
- Protein supplements can come in the form of powders and shakes, protein bars, and amino acid supplements.
- Protein supplements are commonly used in malnourished patients or in patients who need to gain weight. They can also be used in patients who lose weight due to a chronic disease or in patients who are recovering from a severe illness. [1]
- Children with autism who have Sensory Processing Disorder or oral dysphagia may avoid meats due to the texture. Protein supplements can be a great addition to boost protein intake.

Food Sources of Protein

- For food sources, see the [protein note](#).

Protein Supplementation for Children

Protein supplementation can be used for children who are malnourished, need to gain weight, or need more protein to meet their needs. They can also be used in children with autism to relieve some symptoms and replenish amino acid stores. Read about this in the “Protein Supplements and Autism in the Research” section.

Examples of common protein supplements include:

- **Whey**
 - Whey protein comes from the proteins in milk that is obtained during cheese and casein production. [2]
 - Whey protein supplements have been getting more attention by consumers due to the high nutritional value of the proteins and amino acids they supply. [3]
 - Whey protein is high in the essential amino acid methionine and in the nonessential amino acid cysteine. [4]

- Whey supplements help carry amino acids to tissues for use. [5]
- Whey protein is not appropriate for those following a **dairy-free diet**.
- **Examples:**
 - Orgain Grass-Fed Whey Protein Powder
- **Pea**
 - Pea protein is a relatively new plant protein that has gained popularity in recent years for its amino acid profile and high levels of the essential amino acid lysine. [6]
 - Pea protein has a high essential amino acid content and is easily digestible. [7]
 - Pea protein can be a good supplement to use for children who have trouble digesting dairy (whey).
 - **Examples:**
 - [Ripple Milk](#)
 - [Ripple Kid's Protein Drink](#)
 - [Orgain Protein Powder](#) (a combination of pea protein, rice protein, and chia seed)
 - [Designs for Health PurePea Powder](#)
 - [Bob's Red Mill Plant-Based Protein Powder](#)
 - [Arbonne Protein Powder](#)
- **Soy**
 - Soy protein comes from soybeans and may offer many different health benefits.
 - Soy protein supplements can help achieve protein needs; they also contain high amounts of lysine and tryptophan, two of the essential amino acids. [8]
 - Compared to animal protein, soy protein has been shown to lower cholesterol and triglyceride levels. [9]
 - Soy protein supplements may enhance bone health, support physical growth, and trigger bone formation. [10]
 - Soy protein can be a good supplement to use for children who have trouble digesting dairy (whey).
- **Amino acids**
 - Amino acid supplements typically include individual amino acids, like tryptophan or lysine. They are usually advertised as remedies for a variety of health issues, including pain, depression, insomnia, and certain infections. [11]
 - These supplements are made up of single amino acids typically in amounts or combinations that are not found naturally in foods. [11]
 - Branched chain amino acids (BCAAs)
 - BCAAs include the essential acids leucine, isoleucine, and valine.
 - BCAAs help with many processes in the body, from building proteins to insulin secretion. They also play a vital role in metabolism, gut health, and prevention of chronic diseases. [12] [13]
- **Collagen**
 - Collagen is a fibrous protein that holds together connective tissues in the body, specifically skin, joints, and bones. [14]

- Collagen supplements are commonly marketed for improving skin complexion and evidence shows that they help with skin aging. [14] [15]

Protein Supplements & Autism in the Research

- One study found that amino acid supplementation, specifically the amino acid N-acetylcysteine, relieved symptoms of irritability in children with autism. [16]
- Studies have shown that children with autism had greater amino acid deficiencies due to poor protein intake compared to children who do not have autism. [17]
- Whey protein supplements may help replenish glutathione levels. Studies have shown that glutathione levels may be low in children with autism. It has been shown that whey protein at a dose of 10-45 grams per day from two weeks to six months increases glutathione levels. [4] Learn more about **glutathione**.
- Some reports have shown that there is a comorbidity between autism and a connective tissue disorder called Ehlers-Danlos syndrome (EDS). Those with EDS have lower collagen production, leading to structural changes in the connective tissues in the body. [18]

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