

Should I be using Protein Powder?

“A healthy boost of protein first thing in the morning can stabilize your blood sugar throughout the rest of the day.”

Research has shown that using PROTEIN POWDER every day can

- Boost immune system
- Facilitate the healing of wounds after surgery or injury
- Promote healthy skin
- Foster muscle strength and development

A human body NEEDS PROTEIN DAILY because that is what muscles and tissues are built from, and the body has nowhere to keep extra stores of protein to use up. The need for adequate protein in the human body is second only to the need for water.

Protein powders are made from four basic sources: whey(from milk), egg, soy, and rice, or a combination of these. PROTEIN POWDERS are mostly ingested as shakes or smoothies, but can be sprinkled on cereal, oatmeal, yogurts, stirred into soups or stews, and cooked into pancakes, waffles, or baked goods.

You don't have to be a bodybuilder to take PROTEIN POWDER everyday as a dietary supplement. Starting your day with a protein powder shake can provide nutritional benefits. While many nutritionists advise consuming protein throughout the day, a healthy boost of protein first thing in the morning can stabilize your blood sugar throughout the rest of the day.

What are your goals?

Before deciding which protein powder is the best type for you, decide on what your nutritional goals are.

- To gain lean muscle: probably 3 servings a day
- To help lose weight: 2-3 servings
- To help balance blood sugar: 1-2 servings (morning and afternoon)
- For general nutritional health: 1 serving (morning)

How much should I have per day?

Depending on your goals you may have 1 to 4 servings of protein powder a day. Most of your dietary protein should come from food, and protein powder cannot take the place of proper nutrition. In general, for every serving of protein powder/shake you have – you should balance it out with 1 balanced meal and a healthy snack. Example:

5:30 Pre-work out: **prot shake** with milk and banana (**helps build lean muscle**)

7:00 Breakfast: Eggs and fruit OR oatmeal and nuts

10:00 Snack: apple and cottage cheese

12:00 Lunch: chicken, broccoli, sweet potato

2:00 Snack: **prot shake** (**helps regulate blood sugar during the afternoon**)

4:00 celery and peanut butter

6:00 Dinner: fish, salad, brown rice

8:00 **Protein shake** with water (**helps prevent muscle wasting over night**)

When to take the different types of Protein Powders?

Before workouts: **Whey Isolate- Hydrolysate protein** (**quickest absorption**)
or **Whey Protein concentrate** (**quick absorption**)

After workout: **Whey Isolate - Hydrolysate protein** (**quickest absorption**)
or **Whey Protein concentrate**(**quick absorption**)

Breakfast: **Whey Protein** (**quick absorption**)

Snack/evening/Bedtime: **Casein Protein** (**slowly digested**) prevent catabolic state or **Blend Proteins** (**slowly digested**)

Different types of protein

Whey protein (**quick absorption**) There are various types of WHEY protein powders. Whey concentrate (most common) and whey isolate (better) and whey hydrolysates (best)

Whey Protein Versus Whey Isolate:

Whey protein powders that stock the supplement shelves are made up of whey concentrate and mixed in with a small portion of whey isolate. They contain about 70-85% protein.

Whey protein isolate is more expensive than whey protein concentrate because it has a higher quality (more pure) and a higher BV (biological value). Whey protein isolate is the highest yield of protein currently available that comes from milk. Because of its chemical properties it is the **easiest to absorb into your system**. Obviously with its high concentration, an isolate protein would be the obvious choice instead of a concentrate. Whey protein isolate contains more protein and less fat and lactose per serving. Most whey protein isolates contain 90-98% protein.

Whey hydrolysates (also known as hydrolyzed whey protein)(**quickest absorption**) are powerful proteins that are more quickly absorbed; more so than any other form. These types of protein are BEST for **short-term protein synthesis such as 15 minutes prior to a workout, during a workout and immediately after a workout**.

Casein protein (**slow absorption**) makes up 80% of total milk protein. Since casein is slowly digested into your bloodstream, don't use it during workouts or after workouts – you need a fast absorbing protein at these times.

Micellular Casein Is important in preventing muscle breakdown. In fact, research is demonstrating that the slow and sustained release of amino acids from micellular casein can cause a 'timed release' trickle of amino acids into the bloodstream lasting up to 7 full hours after ingestion. This is the best protein to take before bed.

Protein Blends are generally a combination of several types of protein blends such as whey protein concentrate, whey protein isolate, egg protein, casein protein, and soy protein. This is best to take in the afternoon, or bedtime, but not when you want a fast absorbing protein like before or after your work out.

How do I know what my kind of protein my powder contains?

Whatever is listed as the first or second ingredient is the main type of protein in the product.

RESOURCE GUIDE TO PROTEIN POWDER BRANDS

Estimated costs, all other information is confirmed correct.

Costco	Brand	Protein	Bag size	Serv size	# servings	BCAA	Cal	Fat	Carb	Prot
28.99 .36 per serving	Muscle Milk 100% Whey Protein	80% whey conc. 20% whey isolate	6 pound bag	1 scoop 34 g	80 serv	6000	130	2	2	27
34.99 .87 per serving	Muscle Milk Protein Plus	Whey prot isolate Whey prot concen Milk prot isolate Micellular caesin	3 pound Container	1 scoop 34 g	40	????	130	2	3	26
28.99 .42 per serving	Premium Protein Costco Brand	Whey prot conc. Whey prot isolate Par. hydr. Whey Conc. Egg albumin pwdr	6 pound bag	2 scoops 40 g	68 serv	5590	150	1.5	9	26

