

THE REAL DEAL ON Protein



Protein Rich Foods

There are tons of whole food options available to help vary and maximize your protein intake. See some great options in the infographic below!

BEANS & LEGUMES



NUTS & SEEDS



MEAT & SEAFOOD



EGGS & DAIRY



PROTEIN SUPPLEMENTS

While many experts suggest getting the bulk of our protein from whole food sources, protein supplements are essential if you participate in any sports activities, your immune system is compromised, or if you're trying to lose weight. Supplements can also make it easier to get those aminos on-the-go. But not all protein supplements are created equal. Before dissecting the pros and cons of different protein sources, it's important to understand the two ways protein supplements are often classified:

- **Whey Proteins:** Whey Proteins comes from cow's milk and goes through many filtration processes until it becomes either a Concentrate or an Isolate.
- **Concentrates:** As the name implies, this is a concentrated form of protein (30–85%), with the balance being lactose and fat. Different levels of filtration are used in order to obtain different levels of concentrate.
- **Isolates:** This type of protein adds another level of filtration called ultra-filtration, and removes a much higher percentage of non-protein content. This additional process yields a protein up to 95% pure, but lacks the immune enhancing compounds found in concentrates.
- **Plant Proteins:** Plant Proteins come from a variety of Plants and they also undergo many filtration processes until just the usable form of the protein remains.



Bioavailability – What Does it Mean?

Bioavailability is the percentage or scale rating of how much our bodies can make use of certain protein sources. Our bodies and digestive systems absorb some proteins better than others, and certain protein sources will provide a higher amino acid profile.

See below for a handy chart to give you an idea of the bioavailability index rating of common protein sources:

Protein Source	Bioavailability Index
Whey Protein Isolate Blends	100-159
Whey Concentrate	104
Whole Egg	100
Cow's Milk	91
Egg White	88
Fish	83
Beef	80
Chicken	79
Casein	77
Rice	74
Soy	59
Wheat	54
Beans	49
Peanuts	43

You may be asking yourself, "What even is Protein?"

There are three macronutrients: protein, fats and carbohydrates. Macronutrients provide calories, or energy. The body requires large amounts of macronutrients to sustain life, hence the term "macro."

Protein is crucial to good health. In fact, the name comes from the Greek word *proteos*, meaning "primary" or "first place." Each gram of protein contains 4 calories and protein makes up about 15 percent of a person's body weight. It helps form all of the building blocks of the human body, such as cell membranes, antibodies, enzymes, and even DNA.

Protein is essential to building lean muscle. This is one of the reasons why protein is particularly important after exercise. It is commonly found in animal products, though is also present in other sources, such as nuts and legumes.

Protein in Your Body

Proteins are made up of amino acids that join together to form long chains. Whether it's as beef, chicken, fish, plants, or a supplement, protein enters your body and is broken down into amino acids. There are 20 amino acids that help form the thousands of different proteins in your body.

9 Important Functions of Protein in Your Body

- Growth & Maintenance
- Bolsters Immune Health
- Transports & Stores Nutrients
- Provides Energy
- Acts as a Messenger
- Causes Biochemical Reactions
- Provides Structure
- Maintains Proper pH
- Balances Fluids

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When it comes to protein, it's all about the source.

Knowing the source of your protein is essential to good health. You are what your food eats!

Animal Based vs. Plant Based: The primary difference between plant and animal proteins involves their amino acid content. Most animal products are complete sources of protein, and as such are most bioavailable.

- Fish
- Dairy
- Poultry
- Eggs
- Beef

Some sources of plant protein may take longer for the body to digest and use.

Most plant proteins are incomplete, which means that they are missing at least one of the essential amino acids necessary to create proteins in the body. However, some plant-based foods, such as quinoa and buckwheat, are complete sources of protein.

It is important for vegetarians and vegans to mix their protein sources and ensure that they are getting all of the essential amino acids. Also, keep in mind that some sources of plant protein may take longer for the body to digest and use.

The following are examples of plant-based foods rich in protein:

- Grains
- Lentils
- Nuts
- Beans & Legumes
- Certain fruits & vegetables, such as avocados & peas
- Soy
- Hemp
- Rice