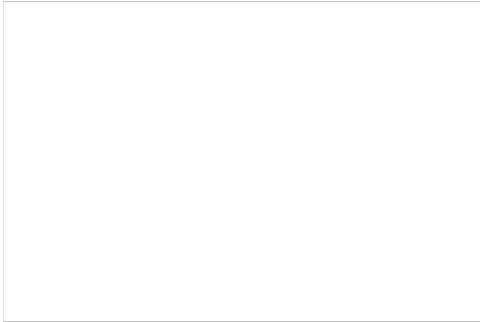


Physical Activity and Proteins. What Should We Know About Their Consumption?



Proteins, which are made up of individual amino acids, serve as your body's building blocks. They help build everything from muscle to skin, bones, and teeth.

Protein is particularly important for building muscle mass and helping you recover from training. This is due to its role in promoting muscle protein synthesis, the process of building new muscle.

To gain muscle, your body must synthesize more muscle protein than it breaks down. In other words, there needs to be a net positive protein balance in your body — often called nitrogen balance, as protein is high in nitrogen.

As such, people who want to build muscle often eat more protein, as well as exercise. A higher protein intake can help build muscle and strength.

Meanwhile, those who want to maintain the muscle they've built may need to increase their protein intake when losing body fat, as a high protein intake can help prevent the muscle loss that usually occurs when dieting.

Few people need to supplement with protein, but doing so can be useful for athletes and bodybuilders.

The general recommendation for protein intake to support lean body mass and sports performance is around 0.7–1.0 grams (g) per pound (1.4–2.0 g per kilogram [kg]) of body weight per day.

When Is the Best Time to Take Protein?

Protein is naturally abundant in foods like meats, fish, eggs, dairy products, grains, seeds and legumes. It is also available as a dietary supplement, commonly known as protein powder.

People often wonder when the best time to take their protein powder is.

This depends on your health and fitness goals. You may want to consume it at a particular time of day, depending on whether you want to lose weight, build muscle or preserve muscle.

Here are the best times to take protein based on your specific goals.

Losing Weight

Protein is one of the most important nutrients for fat loss.

Eating a high-protein diet can help raise your metabolism and reduce your appetite.

Protein helps curb your appetite by reducing levels of the hunger hormone ghrelin, all while increasing levels of appetite-reducing hormones like glucagon-like peptide-1 (GLP-1), peptide YY (PYY) and cholecystokinin (CCK).

This means consuming a protein-rich snack between meals may lead you to eat fewer calories later in the day.

One study found people who ate a high-protein yogurt snack during the afternoon ate 100 fewer calories at dinner, compared to those who ate crackers or chocolate as an afternoon snack. The yogurt, crackers and chocolate all provided the same number of calories.

To reap the most weight-loss benefits, aim to eat plenty of protein-rich foods throughout the day.

Building Muscle

In order to build muscle and strength, you need to consume more protein than your body breaks down naturally during resistance training or weight lifting.

The best time to consume protein for optimal muscle growth is a controversial topic.

Fitness enthusiasts often recommend taking a protein supplement 15–60 minutes after exercise. This time frame is known as the “anabolic window” and said to be the perfect time for getting the most out of nutrients like protein.

However, recent research has shown that this window is much larger than previously thought.

According to the International Society of Sports Nutrition, consuming protein any time up to two hours after your workout is ideal for building muscle mass.

For the average person, resistance exercise and consuming sufficient protein are more important than timing protein intake.

That said, people training in a fasted state, like before breakfast, may benefit from taking protein shortly after a workout, as they haven't consumed protein in a while.

Preventing Muscle Loss

Maintaining muscle mass is especially important as you grow older.

Research shows that people lose roughly 3–8% of their muscle mass each decade after age 30. Sadly, losing muscle is linked to a higher risk of fractures and shorter lifespan.

Scientists recommend spreading protein intake evenly across the day to help prevent muscle loss with age.

This means eating roughly 25–30 grams of protein per meal.

Most Americans eat around three times more protein at dinner than breakfast. This makes consuming more protein at breakfast an ideal way to evenly distribute protein intake.

Exercise Performance and Recovery

Athletes often wonder when they should take protein for performance and recovery.

For endurance training, combining protein with a source of carbs during and after exercise may improve performance and recovery and reduce soreness.

For example, a study of 11 cyclists found that taking a protein and carb beverage during training improved recovery and reduced muscle soreness, compared to a placebo.

For resistance training, protein can help improve both performance and recovery, whether or not it's consumed with carbs.

For most people, eating enough protein is more important than timing protein intake. However, athletes partaking in resistance training can benefit from taking protein either immediately before or after a workout.

Should You Take Protein Before Bed?

The elderly, as well as people looking to build muscle, increase strength and improve exercise performance and recovery, can benefit from taking protein before bed.

In a review of studies, scientists concluded that taking protein before bed is an effective strategy to promote muscle building and help them adapt to exercise.

This is because protein consumed before bed is effectively digested and absorbed, increasing the availability of protein to muscles for recovery throughout the night.

Scientists from that study recommended consuming 40 grams of protein prior to bed to maximize muscle growth and adaptation through the night.

In another study in 16 healthy elderly men, half the participants consumed casein protein before bed, while the other half consumed a placebo. The study showed consuming casein protein before bed promoted muscle growth, even in less active elderly people.

If you want to take protein before bed, you may consider taking a form of casein protein. Casein is digested slowly, which means it can provide the body with a steady supply of protein through the night.

You can also get the benefits of casein protein from real foods instead of supplements. Dairy products like cottage cheese and Greek yogurt are high in casein.

Is Too Much Protein Bad for You?

There is a common myth that consuming too much protein is bad for your health.

Some believe that consuming too much protein can damage the kidneys and liver and cause osteoporosis, a condition in which people develop hollow, porous bones.

However, these concerns are largely overblown and not supported by evidence.

In fact, far more studies show you can safely eat plenty of protein without the risk of harmful side effects.

For example, a detailed review of more than 74 studies came to the conclusion that healthy adults don't need to worry about how much protein they eat.

Most adults can benefit from consuming 0.6–0.9 grams of protein per pound (1.4–2.0 grams per kg) of body weight.

People who want to prevent muscle loss can stay on the lower end of that scale, while those wanting to lose weight or build muscle may eat at the upper end.

References:

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#proteins #sport #muscle #body mass