

Whey Protein Frequently Asked Questions

What is whey protein?

Whey protein is a high-quality protein derived from cow's milk. Whey protein is also one of the richest known sources of naturally occurring branched-chain amino acids - leucine, isoleucine and valine. Compared to many other proteins, on a gram-to-gram basis, whey protein delivers more essential amino acids to the body and is absorbed quickly and efficiently.¹

What are the health benefits of whey protein?

Whey protein consumption can increase production, or synthesis, of muscle protein² which may improve body composition.

How is whey protein good for athletes and people who exercise?

Research shows that consuming a high-quality protein like whey in combination with resistance exercise can boost the rate at which the body makes lean muscle mass and can improve body composition. In fact, a combination of protein intake and resistance exercise yields better results compared to having either of the two alone³ or combining resistance training with drinking a beverage that contains only carbohydrates.⁴

Can people who are lactose intolerant eat whey protein?

Whey protein isolate is a highly purified form of whey protein that in most cases contains less than 1% lactose and is therefore unlikely to pose problems for someone with lactose intolerance. The amount of lactose typically contained in whey protein concentrate, which is a less concentrated form of whey protein, is less than 4%.*

However lactose intolerance does not require avoidance of dairy foods. Studies have identified simple strategies to make dairy easier to digest – such as drinking small amounts of milk (5% lactose) at meals, drinking lactose-reduced or lactose-free milk, eating yogurt (2% lactose), or consuming hard cheeses such as Cheddar or Swiss that are naturally low in lactose (<1% lactose). As with any new food, it is advised that people with lactose intolerance carefully read the ingredient panel on the label to identify ingredients that may contain lactose. In order to accurately determine the amount of lactose in any food product, one should contact the manufacturer of the product.

What are essential and non-essential amino acids?

The body is able to make non-essential amino acids from other amino acids in the body. However, the body is not able to make essential amino acids, and the only way to get them is through diet. One of the best ways to ensure you are meeting your needs is by eating high-quality protein foods. Protein sources that contain all of the essential amino acids are called complete proteins. Whey protein is a naturally complete protein.

How much whey protein is needed to stimulate protein synthesis?

Research shows that consuming at least 20g of whey protein following resistance exercise results in an increase in muscle protein synthesis in healthy adults.²

Does the addition of whey protein to a food or beverage change its taste?

Whey protein has a fresh, neutral taste and will not change the taste of foods to which it is added.

In what foods can people find whey protein?

While found naturally in cow's milk and yogurt, whey protein is also found in many commercial sports nutrition products such as drinks, energy bars and powder mixes for smoothies and shakes. One energy bar can contain as much as 8 to 25 grams of whey protein.

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¹ www.wheyproteininstitute.org.

² Tipton KD et al, Ingestion of casein and whey proteins result in muscle anabolism after resistance exercise. *Med Sci Sports Exerc* 36(12): 2073-2081, 2004.

³ Phillips SM et al, Protein requirements and supplementation in strength sports. *Nutrition* 20: 689-695, 2004.

⁴ Miller SL et al, Independent and combined effects of amino acids and glucose after resistance exercise. *Med Sci Sports Exerc* 35(3): 449-455, 2003.

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