

U.S. Dairy Proteins

Smart Choice for Health

Think  Dairy
brought to you by U.S. Dairy Export Council





Delivering Powerful Nutrition for a Healthy, Active Life

Dairy (whey and milk) proteins are naturally found in cow's milk. Research indicates that as part of a higher protein diet, U.S. whey and milk proteins may help support:

- **Weight management**
- **Post exercise recovery**
- **Healthy aging**
- **Maintaining muscle**
- **Building lean muscle**
(with regular resistance exercise)

Protein Quality Matters

While protein is naturally found in a variety of animal and plant foods, there is a wide variance in protein quality. High-quality proteins are those that provide all the essential amino acids the body needs to function properly. U.S. dairy proteins are an easily digestible, complete protein source containing all of the essential and non-essential amino acids and high levels of branched chain amino acids. Whey protein stands out for leucine content which initiates muscle protein synthesis.



PEAS



ALMONDS



DAIRY



WHEAT



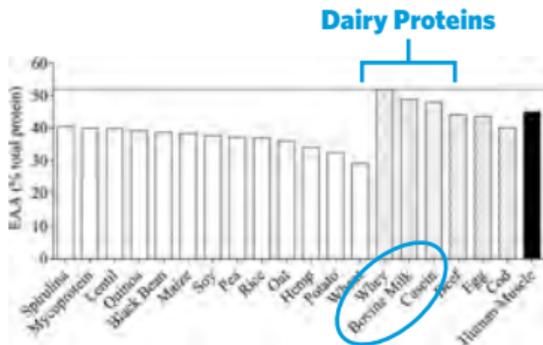
INSECT



Dairy Proteins Rate High on Protein Quality

Essential amino acid concentrations of various protein sources.

A higher concentration of essential amino acids (EAAs) is one of the main indicators of protein quality: higher concentration = higher quality.



Protein Source	EAA % total Protein
Whey	52
Milk	49
Casein	48
Soy	38
Rice	37
Pea	37
Potato	33

Source: Adapted from van Vliet S, Burd NA, van Loon L. *J Nutr.*, 2015.

Consumption Timing Also Matters

There is a limit to the amount of protein the body can use at once. Some experts recommend consuming 25-30g of high-quality protein spaced throughout the day at each meal. Research shows that about 10-15 grams of essential amino acids per meal, including ~2-3 grams of leucine, can help rebuild muscle. As many people tend to eat the least amount of protein at breakfast, adding dairy proteins to breakfast is a simple way to boost protein intake.

BREAKFAST



LUNCH



DINNER





How Much Is Enough Protein?

Aren't most people already getting enough protein in their daily diets? Not necessarily. Recommended dietary allowances for important nutrients such as protein have traditionally been established in terms of minimum amounts necessary to avoid nutritional deficiencies. A growing body of evidence suggests that such dietary protein recommendations may be inadequate for certain vulnerable population groups such as seniors and undernourished youth, as well as for athletes and people trying to manage their weight.

What Is Sarcopenia?

Sarcopenia, the age-related loss of muscle and function, is a progressive process that can be characterized by approximately 3%-8% reduction in lean muscle mass per decade after 30 years of age. Maintaining muscle mass, strength and functionality are important to avoid a domino effect of consequences: decreased activity, increased risk of falls, loss of autonomy and increased dependency. U.S. dairy proteins can help protect against age-related muscle loss.





Nutrition *and* Enjoyment, Anytime, Anywhere

U.S. dairy proteins are versatile ingredients that can boost the quality protein content of foods and beverages with ease, including meals, beverages, gels, snacks and desserts. Their neutral flavor complements the items to which they are added, whether Western-style foods like yogurt and smoothies or even Southeast Asia-friendly creations. To provide consumers with more options, manufacturers are developing innovative products that incorporate dairy proteins into various snacks, nutrition bars, baking mixes, beverages and more.

U.S. Dairy's Promise: Nourishing Proteins, Sustainably Delivered

The United States is the largest producer of whey proteins and a rising producer of milk proteins. U.S. dairy farmers are committed to the health of their cows, caring for the environment and delighting consumers with delicious, accessible, nutritious and sustainably produced dairy ingredients. Multiple layers of checks and balances ensure that consumers can have confidence in the safety and quality of dairy products produced in the United States.





For more information on
U.S. dairy protein nutrition and innovation,
visit **www.ThinkUSAdairy.org/nutrition**
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