



Study reaffirms whey protein's role in developing lean muscle

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As health-minded consumers look to improve their overall wellness, whey protein — a complete, high-quality dairy protein — has all of the amino acids necessary to build and maintain lean muscle. A study presented recently at the American College of Sports Medicine (ACSM) Annual Meeting found whey protein to be more effective in developing lean muscle when compared with soy protein.

America's dairy farmers and the dairy industry have a longstanding commitment to sound, scientific research with a focus on better understanding and promoting the value of dairy ingredients. The U.S. Dairy Export Council® (USDEC) Global Marketing Program staff and representatives from affiliated dairy checkoff programs — including the Dairy Research Institute®, and Innovation Center for U.S. Dairy — will be at the 2012 Institute of Food Technologists (IFT) Annual Meeting & Food Expo through June 28 in Las Vegas. In booth #1458, USDEC is showcasing a number of on-trend applications for whey protein to help food and beverage formulators meet consumer demands.

"Consumers are looking to their food and beverages not just for great taste, but to support a healthy lifestyle too," said Vikki Nicholson, senior vice president of Global Marketing for USDEC. "Whey protein is an ideal dairy ingredient to help meet these demands — it's easy to digest and a complete protein providing one of the best sources of branched-chain amino acids."

Increase in lean muscle mass greater with whey

The study, funded by the Dairy Research Institute and presented at ACSM by the study's principal investigator Jeff Volek, Ph.D., R.D., associate professor at the University of Connecticut, followed participants for nine months as they completed a thrice-weekly resistance training program. They were given either 20 grams of whey protein concentrate, or soy isolate daily (at breakfast on non-training days or immediately following exercise).

"After completing nine months of resistance training, all participants experienced increases in lean muscle mass," said Volek. "The gains for participants consuming whey protein (3.3 kg) were significantly greater than for participants consuming soy protein (1.8 kg) group — potentially due to the branched-chain amino acid content of the whey protein."

Leucine in whey is key

The study builds upon the growing research supporting the value of resistance training combined with whey protein supplementation in building lean muscle. Whey protein naturally contains leucine, a branched-chain amino acid (BCAA) that plays a significant role in muscle maintenance and repair. It cannot be manufactured by the body and must be obtained through foods.

"Protein is an essential nutrient that plays many important roles in American's diets. Beyond building and repairing muscles it has been found to increase satiety and may combat age-related loss of muscle mass," said Keigan Park, Ph.D., director of nutrition research, Dairy Research Institute.

In addition, whey protein delivers these benefits with a fresh, neutral taste, which complements the intended flavor of a product and makes it an ideal ingredient, specifically for health-conscience consumers.

To find out about the variety of ways whey protein and other U.S. dairy ingredients can help food and beverage formulators target today's consumer trends, visit USDEC.org or InnovateWithDairy.com.

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