

Dairy's Role in Sports Nutrition

What the Science Says

Dairy Helps Build Lean Muscle Mass

Participants in a new study who drank milk after weight lifting built more muscle and lost more body fat than those who drank a soy or carbohydrate-based beverage under the same conditions, giving active people yet another reason to consume the recommended three daily servings of dairy foods.

According to the researchers, young men who consistently drink milk following resistance training may improve body composition, gaining more muscle and losing more body fat over time, than if they drink a soy or carbohydrate-based beverage. And, increases in lean muscle mass raise metabolism which ultimately helps burn more calories.



- **Muscle Mass:** Milk drinkers gained the most amount of muscle mass that was nearly 40 percent more than soy drinkers and over 60 percent more than the carbohydrate beverage drinkers.
- **Fat Loss:** Milk drinkers also lost nearly four times more body fat over the 12-week period than the soy group and 60 percent more body fat than the carbohydrate group.
- **Muscle Strength:** Overall, each of the three groups increased their muscle strength to a similar extent with training. However, when examining individual exercises, there was a trend for greater strength gains for knee extensions and hamstring curls in milk drinkers than in those consuming soy or carbohydrate-based beverages.

Hartman JW, Tang JE, Wilkinson SB, Tarnopolsky MA, Lawrence RL, Fullerton AV and Phillips SM. Consumption of fat-free fluid milk following resistance exercise promotes greater lean mass accretion than soy or carbohydrate consumption in young novice male weightlifters. *American Journal of Clinical Nutrition*. 2007; 86(2):373-381.

Milk is Effective for Post-Exercise Rehydration

A new study suggests that drinking low-fat milk after exercise may promote rehydration better than water or sports drinks.



Eleven young, healthy males and females participants drank either low-fat milk, water or sports drink following exercise, in an amount of 150 percent of their sweat loss. Participants were monitored to determine fluid status over the following four hours.

The results clearly showed that milk was more effective than water or the sports drink at replacing exercise-induced fluid losses and maintaining hydration in the post-exercise period.

The authors note that milk's natural electrolytes are likely responsible for its ability to restore fluid balance, while slower digestion due to the protein and fat components in milk may also play a role.

Shirreffs S, et al. Milk as an effective post-exercise rehydration drink. *British Journal of Nutrition*. 2007; 98: 173-180.

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The National Dairy Council® was founded in 1915 and conducts nutrition education and nutrition research programs through national, state and regional Dairy Council organizations, on behalf of America's dairy farmers.

To schedule an interview with an expert, call 312/240-2880 or send an e-mail to ndc@dairyinformation.com.

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