



WHEY PROTEIN

Whey Protein and Your Post-Workout Nutrition Recovery

What you eat **AFTER** a **WORKOUT** is important to boost the benefits of your daily exercise routine. Incorporating whey protein into your post-workout **“recovery nutrition”** plan can help keep you on track.

WHEY PROTEIN TO HELP BUILD AND REPAIR MUSCLE

- Muscle breaks down when you exercise. Consuming whey protein after exercise can help speed the rebuilding of muscle by increasing muscle synthesis.^{1,2}
- Emerging research suggests consuming whey protein during and/or after exercise may help reduce muscle soreness and may improve muscle function and/or performance in the next workout.^{3,4,5} Additional research is needed.
- Intense exercise reduces glycogen stores in the muscle. If glycogen is not replenished post-exercise, your next workout can be more challenging. Consuming carbohydrates and whey protein together may enhance the replenishment of muscle glycogen, which aids in faster recovery in preparation for your next workout.⁶

CHOOSE PROTEIN WISELY

Not all proteins are equal – quality matters.

Whey protein is a high-quality, complete protein naturally found in dairy foods. It contains all of the essential amino acids that your body needs and is easy to digest. It is also one of the best sources of branched-chain amino acids (BCAA),⁷ including leucine, which has been shown to stimulate muscle synthesis.⁸

HOW TO ADD WHEY PROTEIN TO YOUR DIET

Consume whey protein immediately before exercise or within one hour after exercise for best results.^{3,4,9}

As little as 10 grams of whey protein has been shown to stimulate muscle synthesis following exercise.¹

Whey protein is widely available – it can be found in sports drinks, energy bars, and powders (add to your favorite smoothie recipe!), and can help in your recovery after exercise.

1 Tang JE, et al. *Appl Physiol Nutr Metab.* 2007; 32: 1132-38.

2 Hulmi JJ, et al. *Nutr Metab.* 2010; 7(1): 51.

3 Romano-Ely BC, et al. *Med Sci Sports Exerc.* 2006; 38(9): 1608-16.

4 Luden ND, et al. *Int J Sport Nutr Exerc Metab.* 2007; 17(1): 109-23.

5 Valentine RJ, et al. *Int J Sport Nutr Exerc Metab.* 2008; 18(4): 363-78.

6 Berardi JM, et al. *Med Sci Sports Exerc.* 2006; 38(6): 1106-13.

7 USDA National Nutrient Database for Standard Reference, Release 23.

8 Layman DK, et al. *J Nutr.* 2003; 133: 261S-7S.

9 Cribb PJ, et al. *Med Sci Sports Exerc.* 2006; 38: 1918-25.

For more information, visit www.nationaldairyCouncil.org/wheyprotein



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