



# 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 PROTECT AND BUILD MUSCLE

- Muscle breaks down when you exercise. Consuming whey protein after exercise can help speed the rebuilding of muscle by increasing muscle synthesis.<sup>1, 2</sup>
- When exercising, muscles can get damaged and sore. Research shows that consuming a whey protein carbohydrate beverage with<sup>2</sup> or without<sup>3</sup> antioxidants during and/or after exercise may reduce muscle damage<sup>2, 3</sup> and soreness<sup>2</sup> as well as improve muscle function or performance the next day.<sup>3</sup>
- 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.<sup>4</sup>

### 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),<sup>5</sup> including leucine, which has been shown to stimulate muscle synthesis.<sup>6</sup>

### HOW TO ADD WHEY PROTEIN TO YOUR DIET

Consume whey protein immediately before exercise or within one hour after exercise for best results.<sup>2, 7</sup>

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

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

<sup>1</sup> Tang et al., Appl Physiol Nutr Metab., 2007

<sup>2</sup> Romano-Ely et al., Med Sci Sports Exerc., 2006;

Luden et al., IJSNEM, 2007

<sup>3</sup> Valentine et al., IJSNEM, 2008

<sup>4</sup> Berardi et al., Med Sci Sports Exerc., 2006

<sup>5</sup> USDA National Nutrient Database for Standard Reference, Release 20

<sup>6</sup> Norton et al., JNutr, 2006

<sup>7</sup> Cribb et al., Med Sci Sports Exerc., 2006

For more information, visit [www.nationaldairyCouncil.org/wheyprotein](http://www.nationaldairyCouncil.org/wheyprotein)



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