

DO YOU/CAN YOU

DO THIS?

SHORT WELLNESS

SELF-CHECKS

Do You Know What to Eat After Exercise?

Right After Exercise is a Prime Recovery Window

SPORTS NUTRITION SERIES

Summary: You do not need to eat immediately after exercise to take advantage of the recovery window. Although depleted muscles are indeed primed to refuel most rapidly during the first 4 hours after a hard workout, the muscles continue to take up carbohydrate over the next 24 to 48 hours, but at a slower pace. If you are a recreational exerciser who works out three or four times per week you have plenty of time to refuel your muscle glycogen stores between workouts without immediate refueling. If you are an athlete or looking to make gains you should think about recovery eating after a workout. Read on for details.



What is to eat after exercise is a common question I get from athletes. I typically tell most people that it is not a must to eat right after. It may be a good idea if you are an ATHLETE, especially on how hard you exercised because it affects your recovery. It has been shown that right after exercise protein's amino acids are easily assimilated from the blood into the building muscle. Carbohydrates are also good to have after exercises since the muscles are also most efficient at absorbing carbohydrate from the blood to replenish depleted carbohydrate stores (glycogen). One of the best ways athletes can aid recovery through nutrition is by consuming chocolate milk. As little as 100 calories can make a big difference according to N. Clark (Flakoll et al. 2004). I do not recommend chocolate milk after exercise for the common exerciser since it has a good deal of added sugar.

How does this work: Refueling with carbohydrate plus protein is beneficial in two ways: Carbohydrate stimulates the release of insulin, a hormone that helps build muscles as well as transports carbohydrate into the muscles to replenish depleted glycogen stores. Carbohydrate combined with a little protein (10 to 20 g) creates an even better response, and it reduces cortisol, a hormone that breaks down muscle. You'll more rapidly convert from a state of breaking down muscle to repairing and rebuilding muscle, thus speeding your recovery and improving your next bout of exercise/sport.

I have always been a big supporter of carbohydrates through whole grains, fruits, and veggies. I am not alone because when it comes to effective recovery leading sports nutritionists suggest to consume three times more carbohydrate (which refuels depleted glycogen stores) than protein (which rebuilds and repairs damaged muscles). You can do this through making a fruit smoothie with 3 x the calories of carbohydrate to the added protein, which should be 10-20 grams. So that could be 2 pieces of fruit with 50 calories of whey protein powder in a smoothie or a bowl of healthy cereal with milk or a glass of chocolate milk.

MORE DETAILS: Like I said before you do not need to eat immediately after exercise to take advantage of the recovery window. Although depleted muscles are indeed primed to refuel most rapidly during the first 4 hours after a hard workout, the muscles continue to take up carbohydrate over the next 24 to 48 hours, but at a slower pace. If you are a recreational exerciser who works out three or four times per week, you have plenty of time to refuel your muscle glycogen stores between workouts without immediate refueling. If you will be exercising hard again in four to six hours, you should plan to eat as soon as tolerable after your first workout. N. Clark suggest that the key is to plan ahead so you can easily consume a combination of carbohydrate sources to refuel depleted muscle glycogen stores and protein to repair and build muscles. Although engineered sports foods may advertise a 3-to-1 or 4-to-1 ratio of carbohydrate to protein, you need not get obsessed about the exact ratio. The idea is to eat primarily carbohydrate with 10 to 20 grams of protein as the accompaniment, depending on your body size (more precisely 0.15 g protein/lb or 0.3 g/kg of body weight). That offers plenty of protein to optimize muscle synthesis. Most hungry athletes naturally do this (if not initially, then within an hour or so) as they repeatedly seek wholesome snacks and meals—unless they are swayed by high-protein, low-carbohydrate fad diets.

If you enjoy tracking your food and want a more specific recommendation, target about 0.5 gram of carbohydrate (1 g/kg) and 0.1 to 0.15 gram of protein per pound (0.25 to 0.3 g/kg) of body weight every hour for four to six hours (ACSM 2016). Let's assume that you weigh 150 pounds (68 kg). The equation would look like this:

If you are a competitive athlete who will be doing intense training again within 24 hours, you should target 0.5 gram per pound of body weight (1 g/kg) per hour during the first 4 hours post exercise (N. Clark 2018, Burke, van Loon, and Hawley 2017). For a 150-pound (68 kg) athlete, that's about 300 calories of carbohydrate per hour that you need to have readily available. This is some serious Carbohydrate eating. Also combine those carbs with at least 10 to 30 grams of protein during those 4 hours.