

# FUELING FOR RECOVERY

I am a collegiate soccer player. Often, after a hard practice, my legs feel heavy and sore, and I am tired and sluggish. My performance at practice, especially the next day, and during strength training, seems to suffer because I can't give 100 percent.

I drink plenty of water and try to sip on sports drinks during practice, but what more can I do to have more energy and improve my performance?



## GOALS OF RECOVERY NUTRITION

- Restore fluids and electrolytes lost through sweat during activity.
- Replace muscle fuel (carbohydrates) burned during exercise.
- Provide protein to promote muscle repair and growth.

*(For what to eat to fuel your recovery, turn the page.)*



Information presented by



**Sports,  
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## EATING FOR OPTIMAL RECOVERY

Recovery nutrition should include carbohydrates (to replace glycogen), protein (to repair muscle and tissue damage caused by the stress of exercise) and fluids (for hydration). Look for something containing about half of your body weight in grams of carbohydrates (e.g., if you weigh 150 pounds, aim for 75 grams of carbohydrates) along with 15-25 grams of protein. If you have a low appetite after exercising, a liquid food option may be the best place to start.

Examples of good recovery snacks:

- Low-fat chocolate milk
- Fruit and yogurt smoothie
- Graham crackers with peanut butter and low-fat milk
- Greek yogurt with fruit
- Apple or banana with nut butter and low-fat milk
- Trail mix, including nuts and dried fruits, and a sports drink

Following up your recovery snack with well-balanced meals throughout the day is ideal. Examples include:

- Two to three scrambled eggs, two pieces of whole-wheat toast with jelly, and a side of mixed berries
- Grilled chicken with a small baked potato and green beans
- Whole-wheat spaghetti with marinara or tomato-based meat sauce made from lean ground beef, and a side salad
- Baked fish with brown rice and mixed vegetables
- Turkey sandwich on whole-wheat bread with a glass of low-fat milk and an apple
- Grilled chicken on salad greens with low-fat dressing and a whole-wheat dinner roll

## THE PROCESS

When you exercise, the primary source of energy your body uses is carbohydrates. After burning through what is readily available in your bloodstream, your body moves on to your carbohydrate stores — the glycogen that is stored in your muscles and liver.

You have a limited amount of glycogen stored in your body, most likely enough to get you through a typical practice. What happens, though, when you have to be in the weight room that same afternoon and you haven't replaced those stores — heavy/sore muscles, fatigue, injuries, feeling like you are “running out of gas”?

**Give it time.** Recovery is an all-day process! It takes anywhere from 24 to 48 hours to fully replace your glycogen stores. Within 30 to 60 minutes after exercise, your body is able to synthesize glycogen from the carbohydrates you eat at a much faster rate. Your heart rate and blood pressure also are elevated, so nutrients are delivered to your muscles and cells quicker.

**Fuel your muscles.** Your body also uses the carbohydrates and protein you eat during this window of opportunity to help prevent further muscle breakdown; and your body's hormonal response to carbohydrates “flips a switch” from muscle breakdown to muscle building. Take advantage of quick-digesting, simple carbohydrates and liquids (e.g., chocolate milk or smoothies) immediately after practice. Follow this with a well-balanced meal within four hours.



Written by SCAN Registered Dietitians (RDs). For advice on customizing a recovery plan, consult a RD who specializes in sports, particularly a Board-Certified Specialist in Sports Dietetics (CSSD). Find a SCAN RD at [www.scandpg.org](http://www.scandpg.org).