

SportsNutrition

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RECOVERY AFTER HARD EXERCISE

An optimal recovery diet is very important for athletes who workout twice a day, do repeated days of hard training, and/or participate in tournaments. To recover quickly from the first bout of strenuous exercise and prepare for the next bout, you want to refuel your muscles within 30 to 60 minutes post-exercise. If you'll be exercising within six hours, refuel as soon as tolerable..

Be sure to plan ahead, so you have the right sports foods and fluids available. If you fail to make a recovery plan, you can easily end up eating the wrong foods. Bad choices that do a poor job of refueling muscles include:

- *too many greasy, fatty foods*, such as donuts, hot dogs, burgers, nachos, French fries, and chips.
- *too much protein*. A protein-rich recovery meal fills your stomach but leaves your muscles unfueled. While protein helps repair muscles and reduce soreness, carbohydrate *refuels* muscles. Protein should be the accompaniment to—not the focus of—the recovery meal.
- *too few total calories*. Even if you want to lose weight, you should fuel-up and refuel with carbohydrates (grains, fruits, vegetables). You won't "get fat" by eating carbs. Plan to lose weight *after* you exercise, by eating less in the evening. (That is, fuel by day and diet by night.)

The following tips can help you integrate an effective recovery diet into both your daily training program and post-event meals.

#1. Focus your recovery meal on breads, cereals, grains, fruits, and vegetables. Your muscles need these carbohydrate-rich foods to make glycogen, the fuel that supports hard exercise. Muscles don't make glycogen from protein and fat. That's why you want to enjoy a whole grain bagel (carbs) alongside the cheese omelet (protein/fat) for a balanced post-exercise breakfast.

#2. After intense exercise, consume ~300-450 calories of carb (0.75 g carb/lb body weight) as soon as tolerable, then another dose every 2 hours for the next 6 hours. Muscles need a steady supply of carbs to refuel.

#3. Choose three times more carbs than protein. Carbs refuel depleted muscle glycogen; protein repairs damaged muscle Some carb + protein suggestions include:

- whole grain cereal +milk + banana
- French toast + syrup + latte
- pasta + tomato sauce + meat balls.

If you can't tolerate solid foods after a workout, quench your thirst with a fruit smoothie (berries + yogurt) or chocolate milk.

#4. Drink enough fluid to quench your thirst—and then drink more. If you've become very dehydrated (as indicated by the inability to urinate), you may need 24 to 48 hours to totally replace your sweat losses. You may not feel thirsty, but you should keep sipping fluids until your urine is a light color (not dark and smelly) and you need to pee every 2-4 hours.

#5. If you crave salt, sprinkle some on your food or eat salty foods such as soup, pretzels, pickles, or salted crackers. Although you lose a little bit of sodium (a part of salt) when you sweat, you are unlikely to totally deplete your body's supply unless you exercise hard under hot conditions for more than 3 or 4 hours. You can easily replace sodium losses with a salted recovery meal.

#6. Enjoy wholesome fruits, vegetables, and juices that contain potassium, a mineral (electrolyte) that you lose in sweat. Some foods rich in both potassium and carbohydrates include oranges or orange juice, bananas, raisins, dried apricots, potatoes, and tomato sauce.

#7. 100%-fruit juice is a healthier post-exercise choice than a sports drink. Natural juices (orange, grape, tart cherry) are rich in potassium, vitamins, antioxidants, and carbohydrates. These nutrients enhance recovery. In contrast, sports drinks offer fewer carbohydrates (because they are designed to be readily absorbed *during* exercise). They also have little nutritional value. Orange juice, for example, offers 20 times more potassium than most sports drinks.

#8. Keep eating carbohydrate-based meals on recovery and rest days to adequately replace depleted glycogen stores. Rest is a critical part of both the training and recovery program. Your muscles need time (24 to 48 hours) without exercise to refuel. Hence, you aren't "being lazy" if you take a day off. You are investing in your ability to heal, refuel, and perform better during your next workout. Remember: the "bad" things happen when you train; the "good" things happen when you rest, rehydrate and refuel!