

Recovery from Hard Exercise

By: Nancy Clark, MS, RD

If you are a competitive player, you've undoubtedly noticed the latest hype surrounding recovery nutrition. The sports supplement industry is bombarding us with commercial recovery foods and fluids that generally offer some combination of carbs and protein. Questions arise: How important is proper nutritional recovery? And how essential are these products to your performance? The purpose of this article is to help you refuel appropriately after your workouts and optimize your performance.

If you train recreationally three or four times a week for 30 to 60 minutes, you can be less focused on recovery nutrition than the player who works to fatigue one or two times a day. Your body does not become depleted during light interspersed workouts, plus you have plenty of time to refuel before your next exercise session. But if you are an player who trains hard daily, does double workouts and needs to rapidly recover from one exercise bout to prepare for the next one, your recovery diet deserves full attention. A few examples include:

- soccer players in a weekend tournament.
- teams with more than one game per week.
- teams training more than once per day.

You'll be able to perform better during repeated bouts of hard training or games if you have planned your recovery diet and have the right foods and fluids readily available to adequately replace calories, carbohydrates, protein, fluids and sodium.

Calories

If you are tired, time-crunched and without a nutrition recovery plan, you might have trouble consuming enough calories (as well as carbs) and fail to replace depleted glycogen stores. A simple solution is to quench your thirst (and abate your hunger) by drinking less water and more cranberry, grape or any other appealing fruit juice. Juices provide the fluid you need, as well as carbs and calories.

If you are trying to lose weight by restricting calories, your best bet is to fuel adequately by day to ensure strong workouts. Then, have a lighter dinner and fewer evening snacks. Do not try to restrict by day and train or play on empty; you'll perform poorly.

Carbohydrates

To replenish depleted blood sugar and muscle glycogen stores and recover from the demands of strenuous sessions, you should plan to consume carbohydrates as soon as tolerable, preferably within 30 minutes post-exercise. Muscles rely on carbs for fuel, so think again if you are on an Atkins-type low carb diet.

Players who weigh 100 to 200 pounds need 75 to 150 grams (300 to 600 calories) of carbohydrates repeatedly every two hours, for six hours. The trick is to plan ahead and have the right foods and fluids readily available for frequent snacking. Otherwise, you may neglect your recovery diet by mindlessly eating nothing, or whatever is around: donuts, burgers, hot dogs, nachos, chips, and other high fat choices that fail to refuel your muscles. If you have trouble tolerating solid food, experiment with liquid recovery foods, such as Instant Breakfast, Boost, chocolate milk or fruit smoothies—excellent sources of carbs + fluids, as well as a little protein.

Protein

Consuming some protein along with the carbs stimulates faster glycogen replacement. The protein also optimizes muscular repair and growth. Yes, you can buy commercial recovery foods such as Endurox R4, but you can just as easily and appropriately enjoy cereal with milk, fruit yogurt, bagel with a little peanut butter or any other sports snacks that offer a foundation of carbs with an accompaniment of protein (i.e., 40 grams carbs, 10 grams protein).

Fluids

If you've become very dehydrated (as indicated by scanty, dark urine), you may need 24 to 48 hours to totally replace this loss. Because thirst poorly indicates whether or not you've had enough to drink, throughout the day sip on enjoyable (non-alcoholic) beverages until your urine is pale yellow, not concentrated, dark (like beer). Fruit juices, smoothies and milk shakes offer both nutritional and health value, more so than sports drinks. For example, orange juice contains 20 times more potassium than Gatorade.

Preventing dehydration during exercise is preferable to treating dehydration post-exercise. To determine your fluid needs, simply weigh yourself naked before and after an hour of hard training during which you drank nothing. The weight loss reflects sweat loss. You can then develop a schedule for drinking adequate fluids during exercise to minimize sweat losses and hasten recovery. A two pound per hour loss equals 32 ounces or 1 quart. This can be prevented by drinking 8 ounces every 15 minutes of exercise.

Sodium

When you sweat, you lose some sodium (a part of salt). You are unlikely to deplete your body's sodium supply unless you sweat hard for more than 4 to 6 hours. Most players easily replace sodium losses within the context of a standard diet that offers 6 to 12 times the amount of needed salt. But if you eat primarily "all natural" or unprocessed foods, and simultaneously add little or no salt to your meals, you might consume inadequate sodium. This can hinder fluid retention. Eating salty foods (soup, pretzels, salted crackers, table salt) is an appropriate part of a recovery diet for most healthy players. Sports drinks are only a weak source of sodium compared to munching on salty snacks. That is, 8 ounces of Gatorade offers only 110 milligrams sodium; a handful of pretzels (0.5 oz) offers 250 milligrams.

If you need to rapidly recover to prepare for a second training session or game within an hour or two and are worried about digestive problems, consuming a tried-and-true sports drink might be a safe choice. But if you can tolerate food, you'll be able to refuel and rehydrate better with higher carb fluids (juices) along with salty snacks: crackers, pretzels—whatever else tastes good and digests comfortably. Foods with a moderate to high Glycemic Index (i.e., sugary sweets, white bread, soft drinks, honey) are among the best choices. They rapidly enter the blood stream and are readily available for fuel.

Rest

You aren't "being lazy" if you take a day off after a hard training session or game; you are investing in your future performance. Your muscles need time (plus adequate carbs and calories) to refuel and heal. Daily hard exercise optimizes glycogen-depletion, dehydration, needless fatigue and injuries-but not performance!

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