

## RECOVERY AFTER HARD EXERCISE

To recover from the demands of strenuous exercise, you should refuel your muscles with carbohydrate-rich foods as soon as you can tolerate eating. You will recover faster and minimize chronic fatigue. The trick is to plan ahead and have the right sports foods and fluids readily available. Otherwise, your recovery diet will likely become inadequate if you mindlessly eat whatever is around:

- *too many greasy, fatty foods.* If you succumb to eating whatever is convenient—donuts, burgers, hot dogs, nachos, french fries, chips, and other high fat choices, you'll fail to refuel your muscles.
- *too few carbohydrates.* Athletes who are very hungry (as happens after hard exercise) can easily devour excessive ice cream, cookies, and other goodies that often offer more fat than carbs.
- *too much protein.* By filling up on meats rather than pasta, potato, rolls and other carbs at the recovery dinner, you'll leave your muscles unfed.
- *too few total calories.* Weight conscious athletes may mistakenly think carbohydrates are fattening and refuel with protein-rich cottage cheese, tuna, and turkey. The rest of the diet (often salads, fruits, vegetables, and rice cakes) generally offers too few carbs to replace depleted glycogen stores. Dieters need to adequately refuel after exercise and then lose weight by eating less at night.

An optimal recovery diet is particularly important if you train or compete more than once a day. The following tips can help you integrate an effective recovery diet into both your daily training program and post-competition meals.

**#1. Focus your recovery meal on carbohydrates.** Your muscles need carbs to make glycogen, the fuel that supports hard exercise. Muscles don't make glycogen from protein and fat. That's why cereal (carbs) is a better choice than a cheese omelet (protein/fat) for a post-exercise breakfast.

**#2. Eat 75 to 150 grams carbohydrate as soon as tolerable (and again every two hours) after intense exercise.** More precisely, consume 0.75 gm carb/lb body weight (about 300-500 calories).

**#3. Eating a little protein along with the carbs may enhance refueling, recovery.** Suggestions:

- wholesome cereal with milk and fruit
- fruit smoothie (orange juice, yogurt, banana)
- meat sauce on pasta.

If you have no desire to eat solid foods after a workout, simply drink some juice (fluid + carbs) or chocolate milk (fluid + carbs + protein).

**#4. Drink enough fluids 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 this fluid. Because thirst poorly indicates whether or not you've had enough to drink, you should keep sipping fluids until your urine is a light color and of significant quantity. Dark colored urine is still concentrated with metabolic wastes, a sign you are not yet in water balance.

**#5. If you crave salt, sprinkle a little on your food,** or select a salty food such as soup, pretzels, 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 4 hours. You can easily replace sodium losses with a hearty recovery meal, given the American diet typically provides 6 to 12 times the amount of needed salt.

**#6. Eat wholesome fruits, vegetables, and juices that contain potassium,** a mineral (electrolyte) that you lose in sweat. Some excellent choices rich in both potassium *and* carbohydrates include oranges or orange juice, bananas, raisins, dried apricots, potatoes, winter squash.

**#7. Post-exercise, remember that natural juices** offer more health value as compared to sports drinks. Natural juices (orange, grapefruit, juice-blends) are rich in potassium, vitamins, and carbohydrates, nutrients that enhance recovery. In contrast, sports drinks offer fewer carbohydrates (because they are dilute and designed for use *during* exercise) and have little nutritional value. Orange juice, for example, offers 20 times more potassium than do most sports drinks.

**#8. Keep eating carbohydrate-rich foods for at least two days** after exhaustive endurance exercise to adequately replace depleted glycogen stores. Your muscles need time to carbo-reload.

**#9. After an exhaustive workout, take a day off from exercise. Rest your muscles** to allow them time to replace depleted glycogen stores. Rest is a critical part of both the training and recovery program. You aren't "being lazy" if you take a day off. You are investing in your future performance.