

Winning the Recovery Race

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Do you ever wonder why it's so hard to get out the door some days or why your Wednesday after-work run with the group often turns into a heavy-legged slog? Many exercise enthusiasts attribute their lack of motivation or desire to being weak-willed. Others simply accept a plethora of unfulfilling workouts as inevitable. Poor training days, however, are often linked to poor eating days. Feeling good on tomorrow's run or bike or hike hinges, to a large degree, on what you did following your previous workout. The key to a speedy recovery is to provide your body with the fluids and foods it needs following exercise. And the sooner you do it, the better.

Recovery is a process

Carbohydrates that athletes consume daily (from fruit and fruit juices, vegetables, milk, yogurt, bread, pasta, grains, rice and dried beans, as well as sweets and snack foods) are converted into glucose or blood sugar and used as energy throughout the day. Glucose not used immediately gets stored in the liver and muscles as glycogen, which the body can convert back to glucose and use for energy at a later time. Muscle glycogen—the body's preferred fuel during exercise—plays a crucial role when you pick up the pace or intensity of workouts as well as during prolonged exercise. As glycogen stores become depleted, you're forced to slow down, sometimes even to a crawl just in order to finish.

Chronically low muscle glycogen stores can trip up even the fittest athlete, especially those who train daily. Heavy or sore legs, feeling rundown, or a lack of your usual oomph can all indicate insufficient recovery from previous physical efforts. Athletes who exercise with low muscle glycogen stores also suffer from more nagging injuries. Start out with less than a full tank and you'll also likely perceive the workout or effort as "feeling harder than it should."

Since it takes the body almost 24 hours to fully replenish muscle glycogen stores, the trick is to capitalize on the "carbohydrate window" that exists immediately following exercise. During the first 60 minutes (especially the initial 15-30 minutes), muscles convert carbohydrate-rich foods and beverages into glycogen up to three times faster than at other times. Unfortunately, athletes often spend this time stretching, socializing, showering and scurrying back to their desk or jumping in the car to pursue their next commitment.

It takes two: rehydrate and refuel

Most of us are aware of the need to rehydrate following exercise, especially when working out or performing in hot and/or humid weather. Feeling thirsty, however, isn't the best indicator as to how much you need to drink. Get to know your body by periodically weighing yourself before and after workouts. To fully rehydrate, drink a minimum of 2 ½ cups of fluid (over the next few hours) for every pound lost. (If you routinely drop more than two percent of your bodyweight, work on doing a better job meeting your fluid needs *during* exercise.) Being able to urinate frequently—pale yellow in color—indicates you're sufficiently hydrated, too.

For optimal recovery, replace fluids and carbohydrates simultaneously, within the first 15 to 30 minutes, especially following intense workouts or prolonged continuous exercise, like moderately-paced runs lasting 90 minutes or longer. If you like to train by the numbers, consume at least ½ gram of carbohydrate per pound of body weight. For most athletes this equates to 50 to 100 grams of carbohydrate. Numerous options abound: sports drinks (14 to 19 grams per cup), high-carbohydrate or meal replacement beverages (check the label for

grams of carbohydrate per serving, some provide as much as 50 grams per 8 ounces), fruit juice (25 to 40 grams per cup) and milk (12 grams per cup). Whole foods, such as fruit, yogurt, cereal and bagels, serve as other generally easy-to-put-down, well-tolerated options.

To further enhance your recovery, pay attention to your sodium and protein needs, too. Drinking a sports drink, judicious use of the salt shaker, or consuming salty foods, such as salted pretzels or lite popcorn, soup, canned vegetables, tomato or vegetable juice and pickles will help your body hold on to the fluids you drink. It can also help prevent hyponatremia (low blood sodium level), a potentially fatal condition that can develop during or after prolonged exercise when exercisers consume large amounts of water but fail to replace sweat-induced sodium losses.

Protein is of vital constituent of recovery, also. Protein is needed to repair and rebuild muscle tissue and it may further boost glycogen resynthesis when consumed shortly after exercise. Since athletes can't live on carbohydrates alone, it doesn't hurt to experiment with consuming protein within the same crucial "carbohydrate window" following exercise. At the very least, include a source of lean, quality protein at your next meal—dairy foods, eggs, meat, poultry, fish, beans or soy foods, and plan to eat within one to two hours following exercise.

Your Grocery Cart

Poor training efforts and sub-par race performances may be due to "underfueling" rather than errors made in training. Enhance the body's recovery process on a daily basis. Consume carbohydrate-rich beverages and foods within 60 minutes following exercise—when muscles are most primed to resynthesize muscle glycogen.

Recovery drinks

- Fluid replacement drink (e.g., Gatorade, Cytomax)
- High-carbohydrate beverage (e.g., OS Endurance, Enervitene)
- Meal replacement beverage (e.g., Ensure, Boost, Endurox R4)
- Fruit juice
- Milk/soymilk
- Carnation Instant Breakfast
- Low-fat milkshake

Recovery foods

- Banana with honey/peanut butter
- Fresh fruit and yogurt or cottage cheese
- Fruit smoothie
- Cereal/instant oatmeal with milk/yogurt
- Bagel with jam/honey/peanut butter
- Toaster waffles and syrup
- Breakfast or energy bar(s)
- Baked potato with cottage cheese/low-fat cheese
- Rice cakes or low-fat crackers and hummus/bean dip
- Turkey sandwich
- Low-fat muffin and fruit juice
- Low-fat cookies (fig newtons, graham crackers, gingersnaps, etc.) and milk