

The Right Fluids & Foods

In addition to getting enough fluid, getting the right type of fluid is important. A rule of thumb is to try to drink 4 to 8 ounces (i.e., 1/2 to 1 cup) of cool water every 15 minutes during work or exercise in a hot environment to prevent dehydration. Cold fluids seem to be absorbed more rapidly from the stomach than those that are warm or room temperature.^{1,2}

Commercial sports drinks can help to replace fluids, but they should not contain more than 6–8 percent glucose or be high in fructose. Glucose concentrations higher than 8 percent will slow down water absorption when working or exercising in the heat.¹ You can also make homemade sports drinks. In the box on this page, you'll find a recipe for a homemade sports drink that will work as effectively as store-bought drinks, but it costs a lot less.

Soft drinks and energy drinks (like Red Bull and Atomic Energy) contain glucose levels that are too high for proper rehydration during work or exercise in the heat. For example, the average soft drink contains between 10–12 percent glucose.

Caffeinated beverages are not advised due to the potentially diuretic effect of caffeine.

Alcoholic beverages should be avoided as a means for replacing fluids. Alcoholic beverages can impede performance and are high in calories and low in carbohydrates. It is a myth that beer is a good sports drink, filled with carbohydrates, potassium, and B vitamins. In fact, beer is a poor source of carbohydrates (only 50 of the 150 calories in a beer are carbohydrates), and you would have to drink 11 cans of beer to get the recommended intake of some B vitamins. Beer also has a dehydrating effect because it causes frequent urination and loss of fluid (diuretic effect). Pre-exercise alcohol can interfere with normal blood sugar control.³

Salt or salt solution consumption is not necessary. The concentration of sodium in your blood

Homemade Sports Drink Recipe

In the bottom of a pitcher, dissolve 4 tablespoons of sugar and 1/4 teaspoon of salt in 1/4 cup of boiling water. Add either 1/4 cup of orange juice or 2 tablespoons of lemon juice and 3-3/4 cups of cold water; chill. Makes 1 quart.

Each 8-ounce glass of this sports drink contains 12 grams of carbohydrate (5 percent glucose), provides 55 calories, and costs about 7 cents to make. A typical store brand may cost about 28 cents per 8-ounce glass.³

actually increases during exercise because you lose proportionately more water than sodium. Your first need is to replace fluids. You will get adequate sodium in the foods you eat. In one study, even athletes who lost 6 percent of their body weight only lost 1 to 2 teaspoons of salt. Additionally, the less salt you eat, the less you lose because kidneys and sweat glands tend to conserve sodium when it is in short supply.³

Although it is important to take in fluids through the right beverages, about 20 percent of total water intake is through foods.⁴ Many fruits and vegetables, such as watermelon and cucumbers, are nearly 100 percent water by weight.⁴ So when you are considering healthy nutrition, fruits and vegetables are always a good choice, including a good choice for hydration.

Sources:

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3. Clark, M. (1997). Sports Nutrition Guidebook. Brookline, MA: Human Kinetics, pp 144-163.
4. Mayo Clinic (2006). Water: How much should you drink every day? Retrieved August 24, 2006. From <http://mayoclinic.com/health/water/NU00283>.