Fluid Facts

Importance of Fluids

Water is the most important nutrient for active people and for good reason. During activity, you lose fluid in the form of sweat. The harder the exercise, the more fluid is lost. It's not uncommon to lose up to 32 ounces (4 cups) of fluid per hour of exercise in hot humid conditions. That's a loss of two pounds for a 150-pound athlete. The resulting decrease in strength and endurance can be surprisingly dramatic.

How Much to Drink?

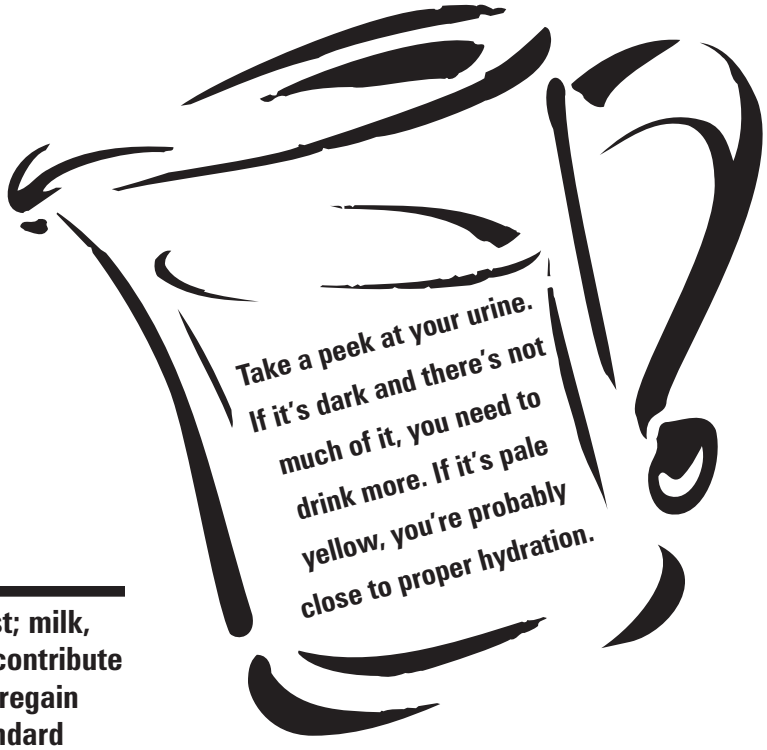
To stay hydrated and perform your best, follow these guidelines for fluid intake.

When	How much
Daily	8 to 10 cups to avoid thirst
2 to 3 hours before activity	1½ to 2½ cups
Every 15 minutes during activity	¾ to 1½ cups (3 to 6 gulps)
After activity	3 cups for each pound of body weight lost

What To Drink

Individual preference, including taste and energy needs, will affect what you choose to drink. For most activities less than 30 minutes in duration, cool water is a great choice. Sports drinks give an energy boost during longer activities. They are designed to replace fluid rapidly and provide energy from carbohydrate in the form of different sugars. Many also contain electrolytes such as sodium and potassium, which are lost in sweat. The small amount of sodium helps move water and carbohydrate into your body quickly.

Sports drinks are also beneficial for activities consisting of multiple exercise sessions in one day such as training camps, swim meets or tennis tournaments.



Drink enough fluids daily to avoid thirst; milk, juice, lemonade and watery foods all contribute to fluid balance. Drink enough fluid to regain weight lost during exercise. Most standard water bottles that fit into a bicycle bottle cage hold 16 to 20 ounces (2 to 2½ cups) of fluid.

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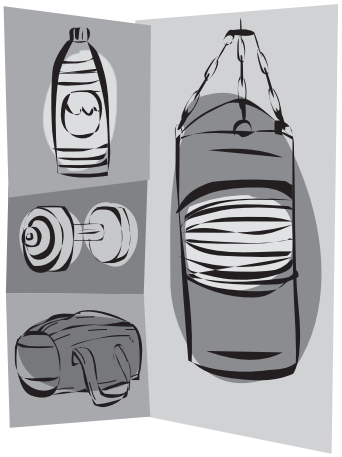
Fluid Facts

Exercising in Heat: What to Watch For

When exercising in extreme heat and humidity, athletes must take special care to replace fluids and stay cool. High temperatures cause heavy sweating resulting in dehydration if nothing is done to replenish lost fluid. Not only will performance suffer, potentially life-threatening symptoms of heat illness can appear if thirst is ignored and fluids limited. Watch for these body signals and be prepared to take appropriate action to correct them.

	symptoms	weight loss	treatment
heat cramps	• thirst • chills • clammy skin • throbbing heart beat • nausea	a loss of up to 5 percent of body weight as sweat: • up to 5 pounds for 100-pound athlete • up to 7½ pounds for 150-pound athlete • up to 10 pounds for 200-pound athlete	athlete should: • drink ½ cup of water every 10 to 15 minutes • during breaks, move to shade and remove as much clothing as possible
heat exhaustion	• reduced sweating • dizziness • headache • shortness of breath • weak, rapid pulse • lack of saliva • extreme fatigue	a loss of 5 to 10 percent of body weight as sweat: • 5 to 10 pounds for 100-pound athlete • 7½ to 15 pounds for 150-pound athlete • 10 to 20 pounds for 200-pound athlete	athlete should: • stop exercise and move to a cool environment • drink 3 cups of water for every pound lost • take off wet clothing and sit on a chair in a cold shower • place an ice bag on head
heat stroke	• lack of sweat • dry, hot skin • lack of urine • hallucinations • swollen tongue • deafness • visual disturbances • aggression • unsteady walking • excessively high body temperature	a loss of over 10 percent of body weight as sweat: • over 10 pounds for 100-pound athlete • over 15 pounds for 150-pound athlete • over 20 pounds for 200-pound athlete	you should: • call for emergency medical treatment immediately • until help arrives, place ice bags on back and front of athlete's head • remove clothing and rub alcohol over most of athlete's body • put athlete on chair in cold shower



? Ask the Sports Dietitian

Q: I don't feel thirsty during exercise. Do I really need to drink water or a sports drink?

A: Absolutely. Neglecting to drink water or a sports drink during exercise will increase your risk for dehydration, causing a decline in your performance. Find something that agrees with your stomach and tastes good, then drink it often during exercise, especially in the hotter months or places with high humidity.

Q: Can I have a soft drink instead of water or a sports drink?

A: Yes and no. While there is no such thing as a good or bad food (or beverage), drinks containing more than 10 percent carbohydrate, such as soft drinks, take longer to be absorbed and can cause abdominal cramps, nausea, bloating and diarrhea. So while a soft drink can fit into a well-balanced sports nutrition diet, it is not recommended for fluid replacement during exercise.

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