

Fluids and Hydration

Here's the Deal

Did you know that your body is mostly water? It's true—60% or more of your body weight comes from fluids! For this reason, it is critical that you stay hydrated by drinking enough liquids so your body can work at its best. Why? When your body is dehydrated (it doesn't have as much fluid as it needs), it can heat up too quickly. This results in impaired performance. Dehydration also puts you at greater risk of heat illnesses such as heat cramping, heat exhaustion, and heat stroke.

Even a small amount of dehydration (losing only 2% of your body weight—just 3 pounds for a 150-pound athlete) can negatively affect your performance. In hot and humid environments, fluid loss can occur very quickly.

Consequences of dehydration

- Decreased endurance
- Decreased strength and power
- Decreased ability to cool your body
- Decreased blood flow to your working muscles
- Decreased concentration
- Slowed recovery
- ♠ Increased injury risk
- ↑ Increased risk of heat cramping and heat illnesses

Get in the Know

- Staying hydrated is key to your athletic success.
- Start drinking fluids when you wake up in the morning and carry fluids with you throughout the day for optimal hydration.
- Monitor sweat loss during workouts.

- Choose sports drinks instead of water during hard workouts and competitions.
- Monitor your urine color and volume to keep tabs on your hydration status.

What to drink before exercise

Athletes often come to practice and competition already dehydrated. Doing so puts you at a disadvantage before you've even started! However, when you follow a hydration plan, you set yourself up for success by not only showing up well-hydrated, but also minimizing the amount of fluid you lose during exercise. Simply being hydrated can boost concentration and overall performance.

A "Hydration Plan" can keep you on track. Carry a fluid bottle with you all day long and take sips throughout the day. Don't wait until you feel thirsty to drink because that may already be too late. Drink on a schedule—some athletes even set their watch timers to remind themselves to hydrate.

An easy way to boost your fluid intake on a daily basis is to "eat" your fluids as well as drink them. Foods that hydrate you because of the amount of water in them include fruits (especially watermelon, cantaloupe, berries, peaches, plums, cherries, mangos, tomatoes, pineapple, and fruit smoothies), yogurt, soups, stews, and salads.

SEE HYDRATION PLAN ON PAGE 2 →

Hydration Plan

- Start drinking fluids as soon as you wake up. Start with 16 ounces of water.
- Keep a fluid bottle with you so you can drink throughout the day.
- Drink extra fluids with meals, such as 100% juice, skim or 1% milk, or smoothies.
- Two hours before workouts, add at least 20 ounces of extra fluids. Sports drinks may be a great choice during this time, especially if you need the extra calories or find yourself cramping during exercise.
- Continue to sip fluids regularly right up to workout time.
- Maximize hydration during workouts and competitions. Try to drink at least 6 ounces of fluid every 15–20 minutes of training.
- After workouts, drink at least 24 ounces of fluid for every pound you lose during exercise.
- Always keep an eye on urine color and volume to monitor your hydration status.

When should I use a sports drink?

Sports drinks are specifically formulated for use during exercise.

They contain enough carbohydrates to boost energy during workouts, but not so much that they are hard to digest. Beverages with at least 70 mg sodium and 4–8% carbohydrates (10–18 grams of carbs from a variety of different sugars per 8-ounce serving) are generally your best option. The longer you train, the more important it becomes for you to rely on sports drinks for fluid replacement during workouts. Sports drinks can be especially helpful in heat and humidity since they replace electrolytes lost in sweat. Keep the 3-H rule in mind. Sports drinks trump water for performance and safety when exercise is Hard, Hot, and lasts more than an Hour.

Get salty

When you sweat, you not only lose fluids, but also electrolytes—minerals that help keep your cells in working order. Sodium is the main electrolyte lost in sweat, so make sure you take in enough sodium every day. Athletes need more sodium than non-athletes. If you are a heavy sweater, or tend to sweat out a lot of salt (you may notice a white film on your skin, clothing, or hat), pay special attention to salting your food and getting extra sodium in your diet.

So, where is sodium?

Try these foods to replace lost sodium:

- Pretzels, baked chips, and salted popcorn
- Packaged noodle, rice, and pasta dishes

Bottom Line

- Your body is mostly water—don't let it get thirsty!
- Following a hydration plan will result in greater concentration and better overall performance as you minimize the chance for your body to become dehydrated.
- Don't just rely on your thirst to keep you hydrated. Instead, train yourself to drink at regular intervals. If increasing liquids during exercise feels uncomfortable at first, start with small sips and build up. Sometimes we have to train our guts just like we train our muscles!

- Salted nuts and sunflower seeds
- Canned and packaged soups
- BBQ sauce, teriyaki sauce, hot sauce, soy sauce, mustard, and ketchup
- Salad dressings
- Pickles and olives
- Tomato juice, vegetable juice, and tomato sauce
- Packaged or frozen meals

How can I tell if I'm hydrated?

Make sure you urinate frequently (every 2–3 hours) and have plenty of clear or light-colored urine. If your urine is dark in color, or you don't have much of it, you are probably dehydrated. Focus on doing a better job with all-day hydration and fluid intake before, during, and after workouts.

INSIDE SCOOP

Are energy drinks the same as sports drinks?

No. Energy drinks usually contain caffeine or other stimulant ingredients, carbohydrates, and additional herbs, supplements, and additives. Although they may give a quick "rush" of energy, they usually do not contain nutrients found in most sports drinks. Some products may contain large amounts of caffeine along with other stimulants and supplements. Before trying energy drinks, be sure they have been reviewed by your sports medicine staff. If you consistently have to rely on energy drinks to feel "up" for training or competition, there are likely other problems with your diet, hydration, or sleep patterns.

This handout was designed by Sports Dietitians Michelle Rockwell, MS, RD, CSSD and Susan Kundrat, MS, RD, CSSD to provide general education. For specific concerns, refer to your sports medicine team.