

Better Soccer: Proper hydration should be a basic tool in your arsenal

By Anne Stein

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Water and adequate hydration are essential to your general well-being, and as an athlete, critical to both effective training and first-rate performance. Yet it's an element that's often overlooked.

"Even though it's a nutrient that deserves top priority from any athlete, water is often minimized and even ignored," explains registered dietitian Monique Ryan, author of the "Complete Guide to Sports Nutrition" (VeloPress, 1999).

Hydration is especially critical for soccer players because it's a high-intensity game and sweat losses can be significant, especially in hot and/or humid weather. The following "water basics" should help you to understand the critical role water plays in your body.

About 60 percent of your total body weight is water - it gives cells their shape and form, protects the spinal cord and brain, lubricates joints and is the main component of blood. It's involved in digestion and eliminates waste products through urine and sweat. It's essential for your hearing, sight and smell to function properly. And, of course, it helps maintain body temperature.

Whether you're practicing or competing, your body temperature rises - so you sweat to get rid of excess heat. And soccer players who are in top shape, says Ryan, sweat even more than their less-fit counterparts, meaning they need more fluids.

While sweating cools you down, the loss of liquid can impair your performance. Your blood volume decreases, exercise starts to seem harder, your heart rate can increase and your body core also increases - if you don't adequately replace fluids.

Signs of mild dehydration include thirst, fatigue, decreased appetite, heat intolerance, light headedness, and dark urine. Signs of severe dehydration are difficulty swallowing, dry skin, stumbling, poor vision, delirium and muscle spasms. Avoid this state at all costs!

Soccer players may sweat from one to two quarts of fluid per hour. "Thirst occurs with a 1 percent loss in body weight," explains Ryan. "When water losses reach about 2 to 4 percent of body weight, physical performance can become impaired."

Other symptoms that you haven't replaced your fluids adequately include irritability, nausea and lethargy. Again, it's a situation you definitely want to avoid.

First, don't depend on thirst to remind you to drink. You've already lost too much liquid at that point. Soccer players need 8 to 12 8-ounce cups of fluid per day.

Two hours before practice or competition, have up to 24 ounces of fluid. Drink 8 to 16 ounces 15 minutes before practice or competition. During practice, drink four to 8 ounces every 15 to 20 minutes, and consume sports drinks or water during games when you're off the field.

Players who have a lot of game time could also benefit from the carbohydrates in sports drinks to replace energy losses. Some situations don't require instant carbohydrate replacement (less playing time, for example), but if the taste and flavor of sports drinks is more appealing than water and promotes more fluid intake, says Ryan, then use them.

Hot and adverse conditions can cause dehydration in as little as 15 minutes, so increase your fluid intake when conditions are tough. After a practice or a game, replace lost fluid as quickly as possible. For every pound of weight lost during exercise, drink two to three cups (24 ounces) of fluid.

Water is cheap and easy to get. There's no excuse for overlooking these important tools for training and playing.

(SoccerStation.com columnist Anne Stein is a Master's swimmer and triathlete, and a former bike racer. She has been senior editor of Inside Triathlon magazine, and now writes for several national health-and-fitness publications. She is based in Chicago.)