COMMUNITY SPORTS & THERAPY CENTER

# EMPLOYEE HEALTH + WELLNESS

Healthcare news for the industrial athlete

H+W Zone

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## Dehydration

In our second issue of the Employee Health + Wellness Zone we will be covering why dehydration occurs, serious complications, roles of water in the body, dehydration prevention, and more.

## Anatomy of Dehydration

If too much water is lost through sweating, blood volume can decrease.

This decreases blood pressure.

Consequently, the heart begins to race.

The body may overheat since the heat isn't being released.

### What is dehydration?

Dehydration occurs when you use or lose more fluid than you take in, and your body doesn't have enough water and other fluids to carry out its normal functions. If you don't replace lost fluids, you will get dehydrated.

Warm weather brings with it thoughts of cool ocean breezes, napping in a hammock and sipping a tall glass of lemonade. Now hold on to the mental image of that lemonade because summer is also a time to be wary of dehydration: the lack of sufficient water in your body, specifically in your cells and blood vessels. Even losing a little bit, as little as 1.5% of your body's water, can cause symptoms. Those symptoms can be as simple as a slight headache, or the dehydration could contribute to a life-threatening illness like heatstroke (hyperthermia).

Your body's natural response to inadequate hydration is thirst. You should respond to thirst right away by drinking fluids – preferably water. Drink enough water to prevent yourself from feeling thirsty! Water has zero calories!

### What does water do for the body?

Between about 55% to about 78% of your body is made of water. Newborn babies are about 78% water, a year-old baby is 65%, adult men are about 60% and adult women are about 55%. Your brain is made up of 73% water, and so is your heart. Your bones are 31% water, muscles and kidneys are 79% and your skin is 64%. A whopping 83% of water makes up your lungs.

Water has so many roles in the body. Some of these include aiding in digestion, lubricating joints, and making saliva that is essential to eating. Water also balance's your body's chemicals by creating hormones and neurotransmitters. Delivering oxygen, cushioning bones, regulating body temperature, and acting as a shock obsorber are a few more examples of water's role in the body.

### Who is at the greatest risk of dehydration?

Anyone can become dehydrated if they aren't drinking water. However, infants and children, especially when they're sick, are at a higher risk of dehydration because they may be unable to communicate that they're thirsty. Monitor the amount of fluids your kids take in. Older adults are also at a higher risk. Their body's fluid reserves shrink and their body's ability to tell them they're thirsty doesn't work as effectively. This means they don't carry as much water in their bodies and they can't tell as easily when they're thirsty. If you're a caretaker of an elderly individual, especially one who may have memory problems, offer them drinks frequently. Even if they're enduring an uncomfortable infection like a UTI (urinary tract infection), they still need to consume liquids.

## Health Tip

Water is all you need if you're planning to be active in a low or moderate intensity activity, such as walking for only an hour or less. If you plan to exercise longer than that, or if you anticipate being out in the sun for more than a few hours, you may want to hydrate with some kind of sports drink.

If you have questions for our Employee Health + Wellness team, please contact Scott Gels, OTR/L, Director of Employer Services at 419-305-7734, email us at wellness@cstcenter.com, or visit www.cstcenter.com for more information.

## Physical symptoms of dehydration

### Mild to Moderate:

Thirst
Headache
Dry mouth/cough
Constipation
Slightly darker urine
Low appetite

### Severe:

Rapid breathing
Rapid heartbeat
Low blood pressure
Severe dizziness or light headedness
Unconsciousness or delirium
Severly dark urine

## Emotional symptoms of dehydration

Confusion
Anxiety
Crankiness

## How Dehydration Affects Organs

How does dehydration affect the brain? Severe hydration shrinks the blood vessels in the brain. When there aren't high enough fluid levels in your brain, that affects your memory and coordination.

How does dehydration affect the heart? Your heart has to work harder when there's less water in your blood.

How does dehydration affect the kidneys? The average person urinates (pees) about six or seven times a day. If you're dehydrated, you may urinate less. This is because less water in your blood causes your kidneys to hold on to the urine.

## How to Prevent Dehydration

**Exactly how much water do you need? That depends on your weight, age, level of activity, age, the climate of your environment and other factors. Those with diabetes, heart disease, cystic fibrosis and other conditions may need to be cautious. The amount of water you need can also depend on the climate and what clothes you're wearing. Although the standard advice is eight glasses of water per day (about 2.2 liters or 2.3 quarts per day for an adult female and about 3 liters or 3.2 quarts per day for an adult male), talk to your healthcare provider to confirm the right amount for you. See below for some quick tips.**

- Drink water throughout the day and with meals.
- Avoid soda, alcohol, and caffiened drinks
- Check your urine color- if it's clear, pale, or straw colored, it's OK. If it's darker than that, keep drinking!
- If you are exercising or playing a sport- drink at least 16-20 ounces of fluids 1-2 hours before an outdoor activitiy. After that, you should consume six to 12 ounces of fluid every 10 to 15 minutes when you're outside. When you are finished with the activity, you should drink more. How much more? To replace what you have lost: at least another 16 to 24 ounces.

Sources:
"Dehydration: Causes & Symptoms." Cleveland Clinic, https://my.clevelandclinic.org/health/treatments/9013-dehydration.
"Dehydration." Mayo Clinic, Mayo Foundation for Medical Education and Research, 14 Oct. 2021, https://www.mayoclinic.org/diseases-conditions/dehydration/symptoms-causes/syc-20354086.

**Contact our experts today to schedule a meeting!**

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