# How much water should you be drinking? <br> BY ALICIA GREENLEIGH <br> The Salt Lake Tribune 

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For years, we've been told to drink eight glasses of water a day. But if drinking that much has you constantly running to the bathroom, it's easy to question the conventional wisdom.
"The public has been brain washed to think we always need to be drinking water," said Katherine Beals, a registered dietitian and professor of nutrition at the University of Utah. "I look around the classroom and I see so many people with those gallon jugs, but they're at a basic resting state so there's no need to be drinking that much."

The eight-glass recommendation is based on the standard 2,000 calorie diet. The idea is that for every calorie burned, people should drink 1 milliliter of water. And 2,000 milliliters is the equivalent of eight cups, said Pauline Williams, a registered dietitian and professor of nutrition at Brigham Young University.

Everyone's calorie intake is different, so is his or her activity level, she said. Eight glasses of water might be appropriate for some people, but not for others.

The question is how much water is right for you?
The sweat test • The best way to know is to figure out how much you sweat. To determine your "sweat rate" simply weigh yourself before and after you exercise.
"Any loss during a workout is fluid," Beals said. "So, if I lose one pound I need to re-hydrate with 16 ounces of water."

Obviously it's not possible to be weighed every time you exercise, but you will see a pattern that can help you develop a hydration schedule, Beals said.

The sweat rule also applies when you are participating in outdoor activities such as hiking, running, mowing the lawn, gardening or even spending a day at an amusement park.

Basically, the rule of thumb is: the more you sweat, the more water you need. Some people naturally sweat more even when they are not exerting themselves. This group will need more liquid than those who sweat less, experts say.

And it is possible to over-hydrate, especially on a hot day, which decreases sodium levels in the blood. While drinking water, be sure to replenish with a little something salty, too.

Another way to track proper hydration is the color of your urine. It should be a light yellow.

If it's dark, you should be drinking more water, Beals said. Many people believe "that urine should be clear," she said. "But urine should never be clear.

Hydration is especially important for children. Parents should make sure that kids take beverage breaks whenever they are playing outside and under the hot sun.
"Remind kids to drink, because they'll be playing and they'll simply forget," Williams said. "Since they have smaller bodies, kids can be come dehydrated much sooner than adults."

More water, please • Symptoms of dehydration for kids can include extremely flushed cheeks, no urination and sunken eye sockets, she said. Adults may experience muscle cramps, nausea and vomiting and lightheadedness.

Hydrating can include beverages and foods besides water. Juice,
watermelon, milk and soup are a few examples. Even diuretics such as coffee and tea, provide some hydration.
"Their diuretic effect has been grossly overstated," Beals said. "[They do] make you urinate, but you probably retain more than half the fluid in a latte. Basically, anything that is fluid in nature is hydrating, within moderation."

That doesn't mean you can drink nothing but soda pop, Beals added, "but if that's part of your diet it absolutely does provide you with fluid."

If your goal is weight loss you should avoid soda, juice and sport drinks that are high in calories. Sports drinks were designed for elite athletes who need to replenish calories and electrolytes quickly, Beals said.
"Water is so good for you, and it's calorie free!" she said.
Whatever you may be drinking, staying properly hydrated is important, said physical therapist Sally Pfiffer. Muscles are 70 percent water, so you can feel tired and achy if you're dehydrated.
"To have them work right," she said, "you need to make sure you're drinking the right amounts of water."
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## The skinny on

# running 

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For some people, the idea of running brings back painful memories of gym class and those laps around the track.

It doesn't have to be that way, said Ryan Cannon, an exercise specialist and personal trainer for the Orthopaedic Center at the University of Utah. He offers a class on proper running technique that helps people break bad habits and shows them how to run without feeling exhausted.

The most important lesson in the Run Right for Injury Prevention class is to run on the balls of your feet instead of coming down on your heels.
"Many people naturally run flat footed, which sends a shock into the knee and hip, setting up for injury later in life," Cannon said during a recent interview. "By learning how to run properly, you're able to go a lot longer and faster using less energy."

Running as exercise has experienced a surge in public interest thanks to the best-selling book Born to Run, in which author Christopher McDougall discusses the benefits of running barefoot. Most people don't realize they are running improperly because their shoes absorb the impact.
"But when running barefoot they notice if they come down wrong," Cannon said. "It forces you to see the improper ways of contact with the ground."

The technique is not as simple as just taking off your shoes. Most people are extremely sore after running barefoot because they are working rarely used muscles. Cannon recommends starting slowly by running a few minutes on the grass or on an inside track, if the rules permit.

While Cannon's class shows students the proper way to run without shoes, it also includes instruction on running with footwear as well as the best
techniques for running on treadmills, pavement and dirt trails.
Knowing the proper technique is the key to avoiding injuries, conserving energy and maximizing movement, Cannon said. "I've seen injuries in everyone from top runners to beginners, and that's why it's so important to know how to do it correctly."

Joseph Holland, a utility regulator, says the classes helped him shed 50 pounds in six months. When he first enrolled in the class two years ago, he says he was out of shape.
"I could kind of run a mile, but not well," Holland said. "For me, it was basically a couch-to-triathlon class. Once I found that I could do it, I got hooked. I started running marathons, and I'm training for my first Iron Man in July."

Holland said the social component also helped motivate him to run outside of class time and get back into the gym.
"My goal was to exercise seven days a week. Now my primary motivator is that I like to eat -- a lot. So if I work out more, I can eat more," Holland laughed.

Heather Brock was also one of Cannon's students.
"I've always liked being active," said Brock, who also rock climbs and does yoga. "I've done a few half marathons, but after the class I have much more endurance. I took an hour off my first half-marathon time just by learning to run on the balls of my feet and by tilting forward slightly."

Brock, who recently had a baby, said she plans to get back into running to help take off the baby weight.
"I have four girlfriends who have slimmed down after their babies just by running," she said, "so to be able to do it right, without tiring as quickly, will really make all the difference."
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## Tips for running properly

Ryan Cannon, an exercise specialist at the University of Utah's Orthopaedic Center, offers these tips on how to run properly and avoid injuries:

Run on the balls of your feet.
Keep knees slightly bent to absorb the shock of landing.
Gain momentum by swinging arms.
Look 6 to 8 feet in front of you while running. Avoid looking around as the hips tend to follow sight lines.

Listen to how loud your strides are. The louder you run, the more energy you're wasting.

Work up to barefoot running if you're not used to it. The same goes for those using the five-finger shoes. Try running for 3-5 minutes on grass or on an inside gym track, if rules permit.

Listen to your body. If you're in pain for long periods of time, stop.

