UF IFAS Extension UNIVERSITY of FLORIDA

FCS80036

Hydration Myths[1]

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Whether at school, work, or running errands, it is common to see people sipping on their water bottles. This fashionable trend is a healthy one because water is essential for life. In fact, our bodies need water to support many important functions. These include

- delivering nutrients to cells,
- removing waste products from the body,
- helping body organs work properly,
- cushioning joints, and
- regulating body temperature.

While most people know that drinking water is good for them, many misconceptions exist about water and hydration. Keep reading to learn the truth behind some of the most common hydration myths.

Myth 1: Everyone needs to drink 8 glasses of water a day

At some point in your life, you may have heard that you should drink eight 8-ounce glasses (64 ounces) of water a day. Is this really necessary? The answer to this question has been long debated, but what's right for one person may not be right for another. While most people can maintain normal hydration by drinking when they feel thirsty, the Institute of Medicine Food and Nutrition Board has made recommendations for the total amount of water someone should drink each day. Total water includes drinking water, water in other beverages, and water contained in food (Institute of Medicine, 2005). The amount of water and other beverages it recommends drinking each day (not including the water from food) is listed in Table 1.

Figure 1. Water is essential to life.
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While the water intake recommendations in Table 1 are a good guide, you may need more or less, depending on your physical activity level, the environment you live or work in, and medical conditions. If you are very physically active or

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spend a lot of time outside in hot weather or hot working environments, then you will need to drink more to replace the water you lose in your sweat. For more information on working in hot environments, refer to the EDIS publication FY1325, *Hydration in Hot Working Environments*. Also, certain medications, such as diuretics, commonly referred to as water pills, and medical conditions, such as kidney disease, heart failure, vomiting, diarrhea, and fever, can change how much water you need. If you are taking prescription medications or have a medical condition, then ask your doctor how much you should drink on a daily basis.

In general, the color of your urine can be used as an indicator of proper hydration (Figure 2). If your urine is the color shown in rows 1 or 2 of the color chart, it is likely that you are well-hydrated. The darker colors suggest poorer hydration status. However, certain vitamins, medications, and foods can change the color of the urine, in which case it would be a less reliable measure of hydration.

Table 1. Total beverages, including drinking water (Institute of Medicine 2005).

Age (years)/Life Stage	Total Beverage Intake (cups/day)
Children 1–3	4*
Children 4–8	5
Boys 9–13	8
Boys 14–18	11
Girls 9–13	7
Girls 14–18	8
Men >18	13
Women >18	9
Pregnant Women	10
Lactating Women	13
*1 cup = 8 fluid ounces	

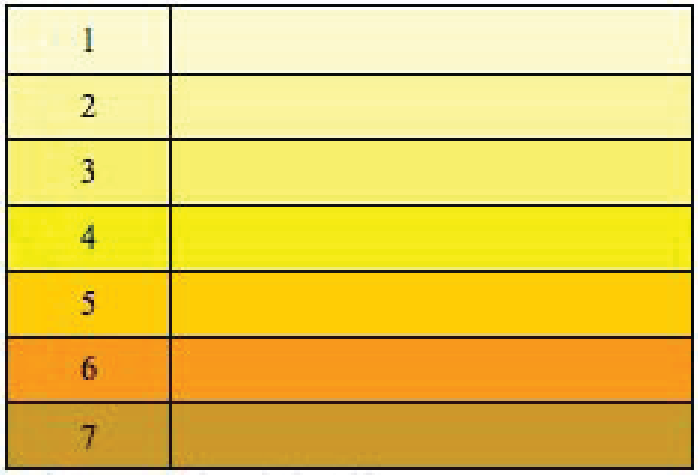

Figure 2. Urine color chart.
Credits: Lauren Caruso (adapted from *What the Color of Your Urine Says about You* [http://health.clevelandclinic.org/2013/10/what-the-color-of-your-urine-says-about-you-infographic/])

Myth 2: Water is the only way to hydrate your body

While it is very important to drink plain water, there are other ways to reach your total water goal for the day. In addition to water, beverages such as coffee, tea, milk, and 100% fruit juice provide your body with water. Many people think that coffee and tea do not count due to their caffeine content, but studies have shown caffeine ingestion does not lead to excessive fluid loss during rest or exercise (Zhang et al., 2015). Therefore, caffeinated beverages can count toward total daily water intake. Fruit drinks, soda, and diet soda can also be counted toward your total water intake; however, fruit drinks and regular soda should be consumed in moderation to limit intake of excess sugar and calories. There is some evidence that alcohol has a dehydrating effect, so alcoholic beverages should not be counted towards your daily water intake.

Water-rich foods—such as soups, fruits, and vegetables—can also provide your body with water. In fact, it is estimated that foods provide about 20% of the total water consumed in a day (Institute of Medicine, 2005). For information about the water content of some commonly eaten foods, refer to the EDIS publication FS178 *Where's the Water?*

Myth 3: Sports drinks are the best way to hydrate during/after physical activity

For most people, water is the best way to hydrate. For the average adult, the American College of Sports Medicine recommends drinking around 17 ounces (a little more than 2 cups) of water 2 hours before exercise (Sawka et al., 2007), and to drink just enough water periodically during exercise to prevent dehydration. The amount needed is not the same for everyone because it varies based on how much you sweat, how long you exercise, and the environment in which you are exercising. If you are exercising vigorously for more than one hour, particularly in hot weather conditions, a sports drink will hydrate you faster than water (Academy of Nutrition and Dietetics, 2007). The glucose and sodium contained in sports drinks help the body absorb water faster than drinking water alone (Zoorob, Parrish, O'Hara, and Kalliny, 2013). Sports drinks are also flavored, which encourages people to drink more. If you are not sure if you are remaining hydrated during your exercise routine, weigh yourself before and after your activity. For every pound lost, drink 16 to 24 ounces (2 to 3 cups) of fluid to replenish your body. For more information about

fueling for exercise, refer to the EDIS publication FY470 *Food and Fitness: Myths and Truths*.

Myth 4: It is impossible to drink too much water

Drinking an excess amount of water in a short amount of time can cause hyponatremia, meaning low blood sodium. While this is a rare condition, it is more commonly seen in marathon runners, and it also can be caused by certain diseases. When the body has more water than it can process, the cells in the brain and the rest of the body will swell, which can cause sickness and even death. Symptoms of hyponatremia may include confusion, hallucinations, nausea, muscle weakness, vomiting, and seizures (MedlinePlus, 2015). Seek immediate medical help if you think you or someone around you may be suffering from hyponatremia.

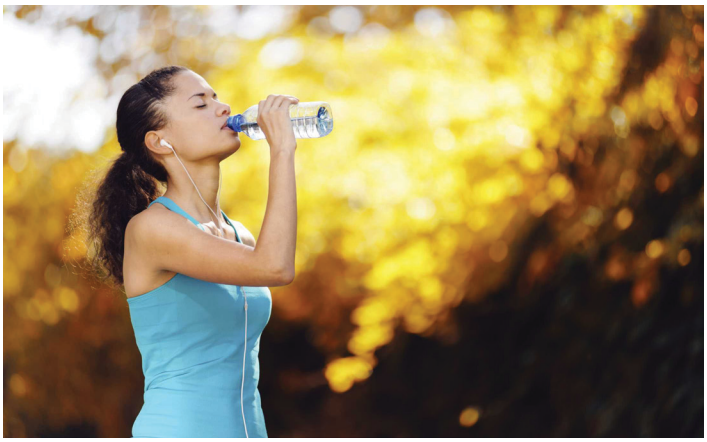

Figure 3. Stay hydrated during exercise by drinking water.
Credits: Warren Goldswain/iStock/Thinkstock.com

Myth 5: Dehydration is not that serious

False! Dehydration can be very serious. It has negative effects on health, as well as physical and mental performance. Studies have shown that losing as little as 2% of body weight due to dehydration can cause decreased alertness, slower response time, and impaired memory, reasoning, and ability to do math (Institute of Medicine, 2005). Dehydration has also been linked to poor exercise performance. Inadequate water intake can increase your risk for kidney stones, gallstones, and certain infections, and it can cause fainting and even death in severe cases. Some common symptoms of dehydration include dry mouth, headache, fatigue, dizziness, and decreased urination. If you are experiencing any of these symptoms, then it could be a sign your body is dehydrated.

Myth 6: Drinking a lot of water helps you lose weight

While drinking a lot of water alone will not cause weight loss, there are several ways water may help you eat less. There is evidence that drinking water before meals may cause you to eat less. One study showed that people on a reduced calorie diet who drank 16 ounces (2 cups) of water 30 minutes before their meals lost 44% more weight than those on a reduced calorie diet alone (Dennis et al., 2010). Also, replacing sugary, high calorie drinks with water will help you reduce your calorie intake, which could lead to weight loss over time.

Tips for increasing water intake

- Carry a reusable water bottle that you can refill throughout the day. Some even have built-in water intake trackers to help you monitor your intake for the day.
- If you have a smartphone, download apps designed to help you track your water intake.
- Slices of lemon, lime, or cucumber are a great way to add flavor to plain water without adding calories.
- As an alternative to soda, try mixing an equal amount of sparkling water with 100% fruit juice.
- If you have trouble drinking water throughout the day, aim to drink one or two cups of water before each meal.

Bringing it all together

Staying properly hydrated by drinking when you feel thirsty and using the Institute of Medicine's recommendations as a guide can help keep your body and mind healthy. It is important to remember that you may need to drink more or less than the recommended amount based on your physical activity, climate, and medical conditions. While it is important to limit your intake of sugar-sweetened drinks, beverages other than water and foods with a high water content can help you reach your daily total water goal. Consult your doctor if you are unsure about what level of fluid intake is right for you.

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