Healthy Living

Patient Information from the American Chiropractic Association

# Are You Drinking Enough Water?

Water is critical for our survival. In fact, after oxygen, it is the second most necessary life-sustaining factor. Under normal circumstances, people can live for weeks without food, but we can only survive without water for a few days.

The human body requires adequate water to maintain its function. As we age, we lose a significant amount of water in the body. For example, 75% of infants' weight generally consists of water, but a 50-year-old female's weight may consist of only 50% water.

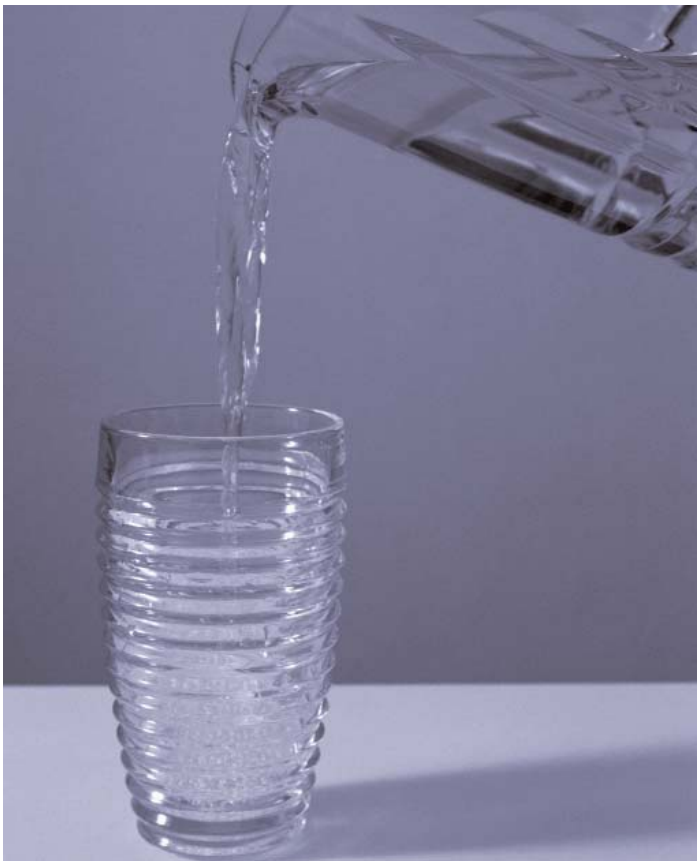
Water helps form the fluid in our joints, the mucous in our lungs, and many other bodily fluids. In addition, it is necessary when we exercise or are exposed to high temperatures—the evaporation of sweat helps cool us.

The human body strives to maintain balance between the amount of water that we lose vs. what we take in. Thirst is the body's way to tell us we need water. When the body has too little fluid, it also reduces water loss by making our urine more concentrated. Generally speaking, most of our water loss occurs through breathing, sweating, urination and bowel movements. Abnormalities in any of these functions—for example, diarrhea—can profoundly affect the balance of our hydration.

It is also possible that drinking too much water without getting enough sodium and potassium may cause "hyperhydration" or "water intoxication." Both dehydration and hyperhydration can lead to serious health problems.

## What is dehydration?

When we lose excessive amounts of water, or water and electrolytes, such as sodium and potassium, we get dehydrated. We feel the effects of dehydration in



many ways, including weakness, abnormal heart rhythms, and fluid accumulation in the abdomen and/or the lungs. In a situation with increased water loss, such as physical exertion, dehydration can happen much quicker. In fact, dehydration can affect an athlete after less than 1 hour of exercise.

We are considered dehydrated when we've lost 1-2% of our body weight secondary to fluid loss. For example, a 150-lb. athlete who loses more than 3 lbs. may begin to feel the effects of dehydration. If we lose more than 3% of our body weight, we are at greater risk for heat-related illnesses like cramps, heat exhaustion, and heat stroke.

## What should I do to stay properly hydrated?

We really don't know the exact answer to this question because fluid requirements vary from person to person—and from day to day. For example, infants need more liquids than adults because their bodies maintain a higher water content and their systems do not provide water balance that's as good as what's found in adults' bodies. The general guidelines for hydration are:

- Numerous studies investigating water balance have demonstrated that the minimal water requirements of inactive adults who live in normal temperate climates are approximately 1 to 3.1 liters (or 34 to 105.4 oz.) a day. This amount should adequately replace estimated minimum respiratory, urinary, fecal, and insensible water losses.
- A general guide for replacing water loss is 1 liter (34 ounces) of fluid for every kilogram (2.2 pounds) lost, or 2 cups (16 ounces) for every pound lost.
- In more physically active individuals, the amount of water intake necessary to maintain proper hydration varies between 2 to 16 liters per day, depending on the activity and the individual. Physically active individuals are not necessarily athletes. Farm workers, heavy laborers, and the like naturally have higher needs for water.
- If you are planning a strenuous physical activity, drink approximately 2 to 3 cups of cold water 2 hours before activity. Drink 1 cup approximately 10-15 minutes before the activity or during your warm-up. During the activity, drink 3 to 4 cups of water every hour of activity, or 1 cup every 15 to 20 minutes. After the activity, you should rapidly replace the fluids that you lost within 2 hours. You should drink approximately 16-24 ounces of water for every pound lost during the activity.

### Signs of Dehydration

- Thirst
- Weakness
- Nausea
- Irritability
- Dizziness
- Confusion
- Decreased performance
- Headache
- Cramps
- Heart palpitations

- Cool beverages of 50-60 degrees are the best forms of fluid for the body. If an activity lasts longer than 1 hour, a sports drink is often recommended.
- Fluids with salt (e.g., sodium, potassium) are beneficial because they increase thirst. The salt also helps replace what's lost through sweat. If you choose a sports drink, it should contain no more than 7% of carbohydrates per serving.
- Avoid fruit juices, carbohydrate gels, sodas, alcohol, and high-sugar sports drinks. These may dehydrate the body further by stimulating excessive urine production and/or decreasing your overall beneficial fluid intake.■

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For more information on prevention and wellness, or to find a doctor of chiropractic near you, go to the Patient Information section on ACA's Web site at www.acatoday.org or call 800-986-4636.

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