

## Older Adults Can Be at Risk of Dehydration



**Decreased fluid intake can exacerbate age-related problems, such as declining kidney function, causing seniors' health to worsen and sometimes landing them in the hospital.**

When Walter, 94, got the stomach flu, he became so weak from vomiting that he was taken to the hospital, where he received fluids. A week later he was back in the hospital after falling in his assisted-living apartment. After the second hospital visit, unable to stand on his own, he entered a nursing care facility. It's likely that, in the intervening week between hospital visits, Walter, who suffers from early dementia, didn't know to keep drinking water or other fluids and stay hydrated. In a two-week period, he lost 20 pounds and had to start using a wheelchair.

Dehydration, which occurs when someone loses more water than they take in, is a serious problem, and a frequent cause of hospitalization, especially for the elderly. Depending on the definition of dehydration, between 6 and 30 percent of people aged 65 years and older who are hospitalized are dehydrated ([International Journal of Preventive Medicine](#)). In a related study, researchers found that 48 percent of older adults admitted into hospitals after treatment at emergency departments showed signs of dehydration ([Parent Giving](#)).

### **Causes of Dehydration**

As we age, several bodily functions decline that make us more susceptible to dehydration. When you add in other outside factors, such as the stomach flu, the combination can turn an otherwise healthy person, like Walter, into someone suffering from various medical issues. Causes of dehydration include:

**Water loss.** As we age, the body doesn't hold as much water because we lose muscle mass, while our fat cells increase. By the time we're 80, we have 15 percent less water than when we were 20, making our bodies more vulnerable to dehydration from even minor fluid loss.

**Kidney decline.** Starting around age 50, and becoming more serious around age 70, the kidneys begin to lose some of their ability to remove toxins from the blood. Because kidneys are less able to concentrate urine, we expel water more quickly as we age.

**Less sensation of thirst.** Older people lose the sensation of being thirsty, much as our taste buds decrease as we age. Also, some seniors may drink less because they fear incontinence.

**Medications.** Drugs such as diuretics, laxatives and angiotensin-converting enzyme inhibitors (used to treat high blood pressure, among other conditions) can cause more frequent urination or perspiration, which interferes with fluid balance. Psychotropic medications, such as antipsychotics, cause dryness of the mouth, constipation or urinary retention, which can affect hydration. Additionally, older adults are often taking several medications at once, further complicating the problem.

**Illness.** Vomiting is a major cause of dehydration, because of fluid loss. A fever has the same effect, and generally the higher your fever, the more dehydrated you may become. A combination of diarrhea and vomiting, as in Walter's case, can increase the risk of serious health issues.

Older adults also tend to eat less, which can also mean less liquid intake. Nursing homes present their own challenges for hydration of elderly residents (see sidebar).

## Severe Consequences of Dehydration

Dehydration can lead to serious complications, including (from the [Mayo Clinic](#)):

- **Swelling of the brain (cerebral edema).** Sometimes, when you're getting fluids after being dehydrated, the body tries to pull too much water back into your cells. This can cause some cells to swell and rupture. The consequences are especially grave when brain cells are affected.
- **Seizures.** Electrolytes—such as potassium and sodium—help carry electrical signals from cell to cell. If your electrolytes are out of balance, normal electrical messages can become mixed up, which can lead to involuntary muscle contractions and sometimes a loss of consciousness.

- **Low blood volume shock (hypovolemic shock).** This is one of the most serious, and sometimes life-threatening, complications of dehydration. It occurs when low blood volume causes a drop in blood pressure and a decrease in the amount of oxygen in your body.
- **Kidney failure.** This potentially life-threatening problem occurs when your kidneys are no longer able to remove excess fluids and waste from your blood.
- **Coma and death.** When not treated promptly and appropriately, severe dehydration can be fatal.
- **Heat injury.** If you don't drink enough fluids when exercising vigorously and perspiring heavily, you may end up with a heat injury, ranging in severity from mild heat cramps to heat exhaustion, or potentially life-threatening heatstroke.

One researcher compares dehydration to a pump trying to work with less fluid, which puts a greater strain on the heart. For older adults with serious medical conditions, dehydration has been linked to increased rates of death. Despite what seems a trivial matter, the costs of not treating dehydration early can be high: a U.S. study in 1999 evaluated the avoidable costs of hospitalizations due to dehydration at \$1.14 billion (from [Hydration for Health](#)).

## How to Avoid Dehydration

To make sure you or someone you're caring for is staying hydrated, the most important factor is to drink plenty of fluids. Standard advice is to drink at least five 8-ounce glasses of water daily. One formula is to drink the number of ounces of water daily that is equivalent to one-third of the person's body weight in pounds. For example, a 150-pound woman would need 50 ounces of water daily, or about six 8-ounce glasses of water.

## Nursing Home Dangers

For nursing-home patients, the threat of dehydration is high. Those who are weak or frail often can't get up on their own to drink. Studies of nursing homes have shown that liquids were often inaccessible to residents. For example, some nursing homes did not offer the proper kind of drinking cup, or caregivers placed the cup on a bedside table out of the patient's reach.

In one study of residents in a long-term-care facility, author Janet Mentes reported that 31 percent of patients were dehydrated ([American Journal of Nursing](#)). In fact, dehydration is among the most common forms of elder abuse and neglect associated with assisted-living facilities, according to the [Nursing Home Abuse Guide](#). In one study, researchers found that nearly all of the 40 patients monitored were inadequately hydrated.

Most nursing homes experience high support-staff turnover, and employees are not always well trained, especially on the need to keep patients hydrated. If your loved one is in a nursing home, make sure they are getting enough fluids every day. Let the staff know about vision and other physical impairments, as well as if the person needs to have thickened liquids.

Although water is the best beverage choice, to motivate someone to drink, you may need to cater to their preferences, such as fruit juice. (However, if the individual is diabetic, caution should be used because of blood glucose values and dietary restriction of sugars) or decaffeinated coffee and tea. Avoid alcohol and caffeine, which have a diuretic effect, causing the kidneys to excrete more water. Caregivers should ensure the older person they are caring for has water by their side at all times—for example, on a bed stand or next to their favorite chair—especially if they do not walk much.

In addition, if the individual has a swallowing problem and needs thickened fluids, this needs to be watched carefully to avoid aspiration of liquids into the lungs. If dehydration is suspected, because the person is not drinking or does not have a normal urine output, a temporary solution could be a sports drink, which has electrolytes needed by the body. However, caution needs to be taken to not over-consume because of the sports drink's higher sodium content.

Eat high-water-content fruits such as watermelon, berries, grapes and peaches. Water-rich vegetable options include tomatoes, lettuce and summer squash. Soups are also a good way to sneak extra liquid into a diet.

Check urine color to make sure it is clear or pale yellow. Dark urine or infrequent urination is a classic sign of dehydration, as is decreased urination and urine output.

Other signs of dehydration to watch for are:

- Dry and sticky mouth
- Thirst
- Dry skin
- Confusion and irritability
- Sunken eyes
- Unconsciousness or delirium
- Difficulty walking
- Dizziness or headaches
- Inability to sweat or produce tears
- Rapid heart rate
- Low blood pressure
- Constipation

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**Sources**

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