

# Dehydration

Dehydration is a common complication of illness in children, especially infants. It can occur any time your child is losing more fluid—through vomiting, diarrhea, or other causes—than he or she is taking in. Dehydration can be a serious problem and always requires prompt treatment.

## What is dehydration?

Our bodies must have enough water to function properly, to filter out toxins through the kidneys, and to maintain normal levels of minerals (electrolytes). Dehydration occurs when the body loses fluid more rapidly than it can be replaced. The main ways the body loses water are through urination, evaporation from the skin, and breathing. Vomiting or diarrhea can cause excess fluid losses.

Although dehydration can occur in older children and adults, infants are at highest risk. Pay attention to how much your baby is drinking and urinating any time he or she is ill. Your child should drink enough liquid to replace the fluids lost from the body. *Get medical help immediately any time your child has symptoms of dehydration: not urinating very often, dryness inside the mouth, crying without tears, or sunken eyes.*

## What does it look like?

- Dryness inside the mouth, including the tongue.
- Urinating less often. In babies, going 6 hours without wetting the diaper may be a sign of dehydration. (With highly absorbent disposable diapers, this may be hard to judge. It may help to place a cotton ball on the penis or vagina.)
- Crying without tears.
- Sunken eyes or “soft spot” (fontanelle) on the top of the head.
- Extreme tiredness; babies may be irritable instead.
- Confusion or behavior changes.
- Fast heartbeat or breathing (this may also be caused by a high fever).

## What causes dehydration?

Dehydration can occur as a complication of any illness in which excess water is lost from the body:

- Diarrhea.
- Vomiting or illnesses that prevent your child from drinking enough fluids.

- High fever causes the body to lose more water; therefore, dehydration can occur more easily.
- Diseases that cause excessive urination, such as diabetes, can also cause dehydration.

## What are some possible complications of dehydration?

- Severe dehydration can cause kidney damage.
- Dehydration causes changes in the body’s levels of salts (electrolytes), which can lead to seizures or abnormal heart rhythms.
- Dehydration increases the risk of abnormal blood clots.

## Can dehydration be prevented?

- Any time your child has a lot of vomiting or diarrhea, keep an eye on the amount of liquids he or she is drinking and how much fluid he or she is losing. Give enough liquids to keep the mouth moist and urination normal.
- Even if it seems as if your child is throwing up all the liquids you give, keep giving them. You may have to give very small amounts of liquids very frequently—a teaspoon every minute or two—to keep up with fluid losses.
- To prevent dehydration, in some children we may recommend it’s best to give liquids containing some minerals, such as Pedialyte, Gatorade, or Crystal Light. Kool Aid and juices may make diarrhea worse because of the large amount of sugar they contain.
- For children of all ages (and adults too), make sure they drink enough water on hot days.
- Regular foods should be continued as soon as possible.

## How is dehydration treated?

The most important treatment is *fluid replacement* (giving back liquids to make up for what was lost). This is especially true in infants, who can lose body fluids rapidly.


*If dehydration is not severe*, treatment may be tried in the doctor’s office or emergency room with liquids.

- Special solutions such as Pedialyte can be used to replace lost body fluids. These products provide not only water but also sugars, salts, and other chemicals your child’s body needs.
- Your child may need large amounts of liquids. The doctor will tell you how much to give; it should be enough to ensure that your child is urinating at least every 6 hours or so, the mouth remains moist, and your child is still

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producing tears. The fluids can be given in small amounts frequently—as little as a teaspoon every minute or two.

- Over time, you can gradually give larger amounts of fluid replacement over longer intervals. Your child can eat solid foods too, if tolerated.
- Restarting regular food as soon as possible is important.

 *If dehydration is severe or not enough liquids can be taken by the child to correct or prevent dehydration (because of severe vomiting, large amounts of diarrhea, or refusal to drink), he or she may need intravenous (IV) fluid. Some of these children will have to be hospitalized.*

### **When should I call your office?**

If the following symptoms of dehydration appear, seek medical care immediately:

- Dryness inside the mouth, decreased or no tears when crying, fast heartbeat, irritability, or extreme tiredness. In infants, going 6 hours without wetting their diapers may be a sign of dehydration. 
- Sunken eyes or soft spot on the top of the infant's head (fontanelle). 