

# Fever

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*In healthy children, fevers usually don't indicate anything serious. Although it can be frightening when your child's temperature rises, fever itself causes no harm and can be a good thing. By itself, fever is not an illness. Rather, it is a sign or symptom of sickness. In fact, usually it is a positive sign that the body is fighting infection. Fever gets the body to fight off infections. It starts certain defenses, such as the white blood cells, which attack and destroy invading bacteria.*

*Your child's normal temperature will vary with his age, activity, and the time of day. Infants tend to have higher temperatures than older children, and everyone's temperature is highest between late afternoon and early evening.*

## Is it a Fever?

A gentle kiss on the forehead or a hand placed lightly on the skin is often enough to give you a hint that your child has a fever. However, this method of taking a temperature (called tactile temperature) is dependent on the person doing the feeling and does not give an accurate measure of temperature.

### **Definitions of fever**

Taken rectally (in the bottom) or in the ear: 100.4° F or above

Taken in the mouth: 100° F or above

Taken under the arm: 99° F or above (this is less accurate)

## How Should I Take My Child's Temperature?

**Infants younger than 3 months.** You will get the most reliable reading by using a **digital thermometer to take a rectal temperature (in the bottom)**. Electronic ear thermometers aren't recommended for infants younger than 3 months because their ear canals are usually too small.

**Children between 3 months and 4 years.**

- You can take the temperature in the bottom or in the ear.
- You could also take the temperature under the arm, although this is a less accurate method.

**Children 4 years or older.** You can take the temperature in the mouth if your child will cooperate. However, kids who have frequent coughs or are breathing through their mouths because of stuffy noses might not be able to keep their mouths closed long enough for an accurate oral reading. In these cases, you can take the temperature in the ear or under the arm.

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## My child has a fever. What do I do? When do I worry?

**INFANTS 3 MONTHS OR YOUNGER.** If you have an infant 3 months or younger with a rectal temperature of 100.4° F or higher, call your doctor or go to the emergency department immediately. Even a slight fever can be a sign of a potentially serious infection in very young infants.

**3 MONTHS TO 3 YEARS.** If your child is between 3 months and 3 years old and has a fever of 102.2° F or higher, call your doctor's office to make an appointment for your child to be seen. If your child has a fever over the weekend, take your child to your local emergency department to be evaluated.

**OLDER THAN 3 YEARS.** For older kids, take behavior and activity level into account. Watching how your child behaves will give you a pretty good idea of whether a minor illness is the cause or if your child should be seen by a doctor.

**Many parents think that oral temperatures (taken in the mouth) between 98.7° and 100° F are low-grade fevers.** They think these fevers should be treated. This is not true. Temperatures taken in the mouth that are between 98.7° and 100° F are fine! There is no need to worry! These temperatures are normal variations. The body's temperature normally changes throughout the day. It peaks in the late afternoon and evening.

**Do not worry about "how high" the fever is.** Many parents worry that fevers over a certain point can actually damage the brain. Only body temperatures above 108° F can cause brain damage. This temperature occurs with extreme environmental temperatures, such as if a child is confined to a closed car in hot weather.

**Also many parents worry that if the fever is high, the cause is serious.** This is not always true. If your child looks very sick, the cause is more likely to be serious. If your child is still interested in playing, is eating and drinking well, is alert and smiling at you, has a normal skin color, and looks well when the temperature comes down, *the illness is probably not serious.* How your child looks is what's important, not the exact temperature. *This does not apply to infants less than 3 months of age.*

**If you can't get the fever to come down with fever medicine (if you can't "break the fever") do not panic.** With fever medication, it is not unusual for the fevers to come down only about 2 or 3 degrees.

### **What about Febrile Seizures?**

Febrile seizures occur in 2% to 5% of all children between the ages of 6 months and 5 years. The fevers do not make the seizures. Instead some children are more likely than others to have seizures with fever. In fact, febrile seizures tend to run in families. While febrile seizures may be very scary, they are harmless to the child. ***Febrile seizures do not cause brain damage, nervous system problems, paralysis, intellectual disability, or death.***

A febrile seizure usually happens during the first few hours of a fever. The child may look strange for a few moments, then stiffen, twitch, and roll his eyes. He will be unresponsive for a short time, his breathing will be disturbed, and his skin may appear a little darker than usual. After the seizure, the child quickly returns to normal. Seizures usually last less than 1 minute.

If your child has a febrile seizure, call your child's doctor right away. He or she will want to examine your child in order to determine the cause of your child's fever. It is more important to determine and treat the cause of the fever rather than the seizure. A spinal tap may be done to be sure your child does not have a serious infection like meningitis, especially if your child is younger than 1 year of age.

Medicines like acetaminophen and ibuprofen can help lower a fever, but they do not prevent febrile seizures.

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Fevers that don't respond to fever medicine are likely caused by viruses or bacteria. In this case, your child should be seen by a doctor so that any infection can be treated - if possible. Also, once the fever comes down with medicines, it is likely to return after the fever medicine wears off. The fever will **go away and not return** once your child's body overpowers the virus (which usually takes 4 days or so).

**Many parents think they need to "break the fever"** and that, without the medications, the fevers will keep going higher and higher. This is not true. The brain has a "thermostat" and therefore fevers from infection usually don't go above 103° or 104° F. They rarely go to 105° or 106° F.

Sometimes kids with a fever breathe faster than usual and may have a higher heart rate. You should call the doctor if your child is having difficulty breathing, is breathing faster than normal, or continues to breathe fast after the fever comes down.

And don't worry too much about a child with a fever who doesn't want to eat. This is very common with infections that cause fever. For kids who still drink and urinate normally, not eating as much as usual is okay.

Kids whose temperatures are lower than **102° F** often don't require medication unless they're uncomfortable.

*Remember that fever is fighting off your child's infection. Fever is one of the good guys!*

## *Causes of Fever*

**Infection:** Most fevers are caused by infection or other illness. Many parents think fevers are harmful to children. This is not true. Fevers help the body fight infections. Fevers turn on the body's immune system and work to help *protect* the body. Normal fevers between 100° and 104° F are actually good for sick children.

**Overdressing:** Infants, especially newborns, may get fevers if they're overbundled or in a hot environment because they don't regulate their body temperature as well as older kids. However, because fevers in newborns can indicate a serious infection, even infants who are overdressed must be evaluated by a doctor if they have a fever.

**Immunizations:** Babies and kids sometimes get a low-grade fever after getting vaccinated. Although teething may cause a slight rise in body temperature, it's probably not the cause if a child's temperature is higher than 100° F.