Fever

What is a fever?

A fever means the body temperature is above normal. Your child has a fever if his:

- Rectal temperature is over 100.4°F (38.0°C).
- Oral temperature is over 99.5°F (37.5°C).
- Axillary (armpit) temperature is over 99.0°F (37.2°C).
- Ear (tympanic) temperature is over:

  100.4°F (38°C) -- if rectal mode

  99.5°F (37.5°C) -- if oral mode.
- Pacifier temperature is over 99.5°F (37.5°C). (Note: Use the digital pacifier thermometer for children over 3 months old. This method is okay for checking for a fever, but it is not as accurate as the oral, ear, or rectal methods.)

Tactile (touch) fever is the impression that your child has a fever because he feels hot to the touch. Checking a fever this way is more accurate than we used to think. But if you're going to call the doctor, actually measure the fever.

The body's average temperature when it is measured orally is 98.6°F (37°C), but it normally fluctuates during the day. Mildly increased temperature (100.4 to 101.3°F, or 38 to 38.5°C) can be caused by exercise, excessive clothing, a hot bath, or hot weather. Warm food or drink can also raise the oral temperature. If you suspect such an effect on the temperature of your child, take his temperature again in a half hour.

What is the cause?

Fever is a symptom, not a disease. It is the body's normal response to infections. Fever helps fight infections by turning on the body's immune system. The usual fevers (100 to 104°F, or 37.8 to 40°C), which all children get, are not harmful. Most are caused by viral illnesses; some are caused by bacterial illnesses. Teething does not cause fever.

How long will it last?

Most fevers with viral illnesses range from 101°F to 104°F (38.3°C to 40°C) and last for 2 to 3 days. In general, the height of the fever doesn't relate to the seriousness of the illness. How sick your child acts is what counts. Fevers cause no permanent harm. Brain damage occurs only if the body temperature is over 108°F (42°C). Fortunately, the brain's thermostat keeps untreated fevers well below this level.

While all children get fevers, only 4% develop a brief convulsion from the fever. Since this type of seizure is generally harmless, it is not worth worrying about excessively. If your child has had high fevers without seizures, your child is probably safe.

How can I take care of my child?

- **Extra fluids and less clothing**

  Encourage your child to drink extra fluids, but do not force him to drink. Popsicles and iced drinks are helpful. Body fluids are lost during fevers because of sweating.

  Bundling can be dangerous. Clothing should be kept to a minimum because most heat is lost through the skin. Do not bundle up your child; it will cause a higher fever. During the time your child feels cold or is shivering (the chills), give him a light blanket.

  If the fever is less than 102°F this is the only treatment needed. Fever medicines are not necessary.

- **Medicines**

  Remember that fever is helping your child fight the infection. Use drugs only if the fever is over 102°F (39°C) and preferably only if your child is also uncomfortable.

  Two hours after they are given, these drugs will reduce the fever 2°F to 3°F (1°C to 2°C). Medicines do not bring the temperature down to normal unless the temperature was not very elevated before the medicine was given. Repeated dosages of the drugs will be necessary because the

fever will go up and down until the illness runs its course. If your child is sleeping, don't awaken him for medicines.

Acetaminophen: Children older than 2 months of age can be given acetaminophen (Tylenol). Give the correct dosage for your child's weight every 4 to 6 hours.

Ibuprofen: Ibuprofen (Advil, Motrin) is similar to acetaminophen in its ability to lower fever. Its safety record is also similar. One advantage ibuprofen has over acetaminophen is a longer lasting effect (6 to 8 hours instead of 4 to 6 hours). Children with special problems requiring a longer period of fever control may do better with ibuprofen. Give the correct dosage for your child's weight every 6 to 8 hours.

CAUTION: The dropper that comes with one product should not be used with other brands.

Avoid aspirin: Doctors recommend that children (through age 21 years) not take aspirin if they have any symptoms of a cold or viral infection, such as a fever, cough, or sore throat. Aspirin taken during a viral infection, such as chickenpox or flu, has been linked to a severe illness called Reye's syndrome.

See also Dosage information

- **Sponging**

  Sponging is usually not necessary to reduce fever. Never sponge your child without giving him acetaminophen first. Sponge immediately only in emergencies such as heatstroke, delirium, a seizure from fever, or any fever over 106°F (41.1°C). In other cases sponge your child only if the fever is over 104°F (40°C), the fever stays that high when you take the temperature again 30 minutes after your child has taken acetaminophen or ibuprofen, and your child is uncomfortable. Until acetaminophen or ibuprofen has taken effect (by resetting the body's thermostat to a lower level), sponging will just cause shivering which is the body's way of trying to raise the temperature.

  If you do sponge your child, sponge him in lukewarm water (85 to 90°F, or 29 to 32°C). Use slightly cooler water for emergencies. Sponging works much faster than immersion, so sit your child in 2 inches of water and keep wetting the skin surface. Cooling comes from evaporation of water. If your child shivers, raise the water temperature or stop sponging until the acetaminophen or ibuprofen takes effect. Don't expect to get the temperature down below 101°F (38.3°C). Don't add rubbing alcohol to the water; it can be breathed in and cause a coma.

When should I call my child's health care provider?

Call IMMEDIATELY if:

- Your child is less than 3 months old.
- The fever is over 105°F (40.6°C).
- Your child looks or acts very sick.

Call within 24 hours if:

- Your child is 3 to 6 months old (unless the fever is due to a DTP shot).
- The fever is between 104 and 105°F (40 and 40.6°C).
- Your child has had a fever more than 24 hours without an obvious cause or location of infection AND your child is less than 2 years old.
- Your child has had a fever for more than 3 days.
- The fever went away for over 24 hours and then returned.
- You have other concerns or questions.

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