

Fever in Children

A fever means the body temperature is above normal. Your child has a fever if their temperature is over 38°C (100.4°F). Infants under 3 months old need to see a health care provider to have all fevers assessed, even if they don't seem very sick.

Feeling hot to touch tells you your child may have a fever, but if you are discussing fever with a health-care provider you should take the temperature with a thermometer. We recommend taking an axilla temperature under the arm. Ear thermometers are usually reliable after 6 months of age. Oral temperature should not be taken until a child is over 5 years of age. Rectal temperatures are usually not required at home. Never use a glass mercury thermometer, as it can be dangerous if the glass breaks.

The body's average temperature is 36.5°C (97.6°F) when measured orally. Temperatures are usually lowest in the morning. Mildly increased temperature between 38 to 38.5°C (100.4 to 101.3°F) can be caused by exercise, heavy 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 30 minutes.

WHAT IS THE CAUSE?

Fever is a symptom, not a disease. It is the body's normal response to infection. Fever helps fight infection by turning on the body's immune system. Most fevers (37.8 to 40°C or 100 to 104°F) that children get are helpful in fighting infection and developing immunity, and are caused by viral illnesses such as colds or the flu. Fever may also be caused by bacterial illnesses such as ear infection, strep throat or bladder infections. Teething does not cause fever.

HOW LONG WILL FEVER LAST?

Most fevers with viral illnesses last from two to five 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. If your child is ill but able to drink fluids and is alert and active when awake, they are generally doing ok with this infection. Fever does not cause any permanent harm.

The brain's thermostat keeps untreated fevers well below the level that can cause brain damage, over 42°C (108°F). While all children get fevers, only four per cent develop a brief seizure from the fever. This type of seizure is generally harmless, but a child who has a febrile seizure should always be checked by a health-care provider. If your child has had fevers over 39°C (102°F) without seizures in the past, your child is probably not going to have a febrile seizure.

TREATMENT ADVICE TO TAKE CARE OF YOUR CHILD

Extra fluids and less clothing

Encourage your child to drink extra fluids. Popsicles and cold drinks are helpful. Body fluids are lost during fevers because of sweating so drinking more than usual is important. If your child is not wanting to drink, offer cold fluids, ice chips, crushed popsicles, anything that is safely age appropriate and your child will drink. Small sips every few minutes add up and assist to keep your child hydrated.

Clothing should be kept to a minimum because most heat is lost through the skin. Do not bundle up your child, because this may cause a higher fever. During the time your child feels cold or is shivering with the chills, give him a light blanket.

If the fever is under 39°C (102°F) this is the only treatment needed. Fevers of this level don't cause discomfort, but they do help the body fight the infection.

Medicines to reduce fever

Fever helps your child fight the infection, so only needs to be treated with medication if discomfort is caused. That usually means fevers above 39°C (102°F).

Fever medicines - called antipyretics - start working in about 30 minutes, and two hours after they are given, these drugs will reduce the fever 1°C to 1.5°C (2°F to 3°F). Medicines do not bring the temperature down to normal unless the temperature was not very high before the medicine was given. Repeated dosages of the drugs are necessary because the fever will go up and down until the illness runs its course. If your child is sleeping, don't awaken them to give fever medicine.

- **Acetaminophen:**

Children older than three months of age can be given acetaminophen (Tylenol). Give the correct dosage for your child's weight every four to six hours. Never give more than five doses in any 24 hours. Never give more than recommended.

- **Ibuprofen:**

Ibuprofen (Advil, Motrin) is approved for infants over six months of age but is best if used over one year of age, especially if the child is not well hydrated. One advantage ibuprofen has over acetaminophen is a longer lasting effect (six to eight hours instead of four to six hours). Give the correct dosage for your child's weight, according to package instructions, every six to eight hours, up to four times per day. Never give more than recommended.

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

Caution: Only use acetaminophen and ibuprofen together if recommended by your child's health-care provider after assessment of your child. Using two medications with different dose intervals can be confusing and cause accidental overdoses, but can be effective for severe pain or high fever that is not relieved using one medication.

- **DO NOT give aspirin:**

Doctors recommend that children (through age 21 years) not take aspirin for fevers. Aspirin taken during a viral infection, such as chickenpox or flu, has been linked to a severe illness called Reye's syndrome. If you have teens, warn them to avoid aspirin.

Sponging

Sponging is usually not necessary to reduce fever. Sponge your child only if the fever is over 40°C (104°F), and hasn't come down 30 minutes after your child has taken acetaminophen or ibuprofen.

If you do sponge your child, sponge him in lukewarm water (29 to 32°C or 85 to 90°F). Sponging works much faster than immersion, so sit your child in two 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 and warm until the acetaminophen or ibuprofen takes effect. Don't expect to get the temperature down below 38.3°C (101°F). Do NOT add rubbing alcohol to the water, because if breathed in it can cause a coma.

WHEN SHOULD I SEE A HEALTH-CARE PROVIDER?

SEE A HEALTH-CARE PROVIDER IMMEDIATELY (your health-care provider if possible, or an Urgent Care or ER) if:

- Your child is less than three months old and has a fever over 38°C (100.4°F) or is not acting normally (not eating, not waking, not as interactive as usual, crying).
- The fever is over 40°C (104°F) and has not improved two hours after giving fever medicine.
- Your child looks or acts very sick.
- Your child has any serious symptoms, such as fever with severe headache, confusion, stiff neck, trouble breathing, rash, or refusing to drink.
- Your child has a fever and recent travel outside the country to high-risk area.

SEE A HEALTH-CARE PROVIDER WITHIN 24 HOURS (your health-care provider if possible, or an Urgent Care or ER) if:

- Your child is three to six months old with fever over 38°C (100.4°F) - unless the fever is due to an immunization.
- Your child has had a fever more than 24 hours without an obvious cause or location of infection AND your child is less than two years old.
- Your child has had a fever for more than three days.
- The fever went away for over 24 hours and then returned.
- Your child has been on antibiotics for three days and fever continues.
- You have other concerns requiring medical assessment.

If you haven't spoken to us yet, call Health Links – Info Santé to discuss your child's symptoms with a nurse. Call back any time if your condition changes and you need assessment, or you have any questions or concerns.

Written by Barton D. Schmitt, MD, author of “My Child Is Sick,” American Academy of Pediatrics Books.

Published by RelayHealth. Copyright ©1986-2017 Barton D. Schmitt, MD FAAP. All rights reserved.

Reviewed and Revised by Health Links - Info Santé of the Provincial Health Contact Centre, April, 2018

This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a health-care professional.