

MY CHILD HAS A FEVER: The things I have to know

WHY DO WE GET FEVER?

Fever is a **normal response** of the body's immune system to a variety of conditions, the most common of which is infection. Fever occurs when the body's temperature is elevated as a result of the body's thermostat (hypothalamus) being reset to a higher than usual temperature. Nearly every child will develop a fever at some point.

WHAT IS A FEVER?

Because of the normal variation in body temperature, there is no single value that is defined as fever. Fever should preferably not be "felt with the hand". The following are generally accepted definitions:

- Oral temperature above 37.5°C
- Armpit temperature above 37.2°C
- Ear temperature above 38°C

WHAT CAUSES THE FEVER?

Infection is the most common cause of fever in children. Common viral illnesses like colds, gastroenteritis, ear infections, croup, and bronchiolitis are the most likely illnesses to cause fever. Teething probably does not cause fever. In particular, studies have shown that temperatures 38.5°C greater are unlikely to be related to teething. Bundling a child who is less than three months old in too many clothes or blankets can increase the child's temperature slightly. Some childhood immunizations can also cause fever. The timing of the fever varies, depending upon which vaccination was given. It can happen up to 1-2 weeks later in the case of MMR vaccine.

IS A FEVER DANGEROUS?

No, a fever is not dangerous. It is true that a fever that rises rapidly to high levels can cause a fever fit (convulsion/seizure) in children from 6 months to 6 years. These fits occur only in less than 1 of 10 children and if your child was completely healthy before the fit, the fit is not harmful. Children with epilepsy or brain injuries can have these fits more easily. Fever fits do not cause brain damage and do not mean that the child will have epilepsy.

HOW DO I MEASURE MY CHILD'S TEMPERATURE?

It is **not accurate to measure a child's temperature by feeling** the child's skin. This is called a tactile temperature, and it is highly dependent upon the temperature of the person who is feeling the child's skin. It is possible to accurately measure the temperature in the **mouth (for children >4 years), ear (for children > 6 months) and in the armpit (babies < 6 months)** when the proper technique is used. Digital thermometers are inexpensive, widely available, and are the most accurate way to measure temperature.

When you measure the oral temperature: Do not measure the temperature in a child's mouth if he or she has consumed a hot or cold food or drink in the last 30 minutes. Place the tip of the

thermometer under the child's tongue towards the back. Ask the child to hold the thermometer with his or her lips. Keep the lips sealed around the thermometer. A glass thermometer requires about 3 minutes while most digital thermometers need less than one minute.

When you measure the armpit temperature: Place the tip of the thermometer in the child's dry armpit. Hold the thermometer in place by holding the child's elbow against the chest for 4 to 5 minutes.

SHOULD I TREAT MY CHILD'S FEVER?

There are pros and cons of treating fever. Fever may play a role in fighting infection, although it can make a child uncomfortable. **The height of a child's fever is not always the best indicator of whether the child needs to be treated and/or evaluated. Instead, it is important to note how a child behaves and appears.** Fever may be accompanied by other symptoms such as runny nose, cough, diarrhea, shivering, cold hands and feet. **In most cases, a child with a fever can be observed and/or treated at home unless you notice the signs listed in Box 1.**

Treatment recommended: If a child has an underlying medical problem, including diseases of the heart, lung, brain, or nervous system, or if the child has had febrile seizures in the past. Treatment is helpful if the child is uncomfortable, although it is not necessary.

Treatment not required: A child older than 3 months who has a temperature less than 39°C, who is otherwise healthy and acting normally, does not require treatment.

HOW SHOULD I TREAT THE FEVER?

1. **Increase fluids:** Encourage your child to drink an adequate amount of fluids. Children with fever **may not feel hungry and it is not necessary to force them to eat.** However, fluids such as milk, formula, and water should be offered frequently. Older children may eat jelly, soup, or frozen lollies. If the child is unwilling or unable to drink fluids for more than a 6 hours, you should consult your doctor.
2. **Rest:** Having a fever causes most children to feel tired and achy. During this time, parents should encourage their child to rest as much as the child wants. It is not necessary to force the child to sleep or rest if he or she begins to feel better. Children may return to school or other activities when the temperature has been normal for 24 hours.
3. **Sponging and baths:** Sponging involves placing a child in a bathtub and using a damp washcloth to apply **comfortably warm (30°C) water to the entire body.** Cooling occurs as water evaporates from the skin surface. Therefore, the child should not be wrapped in wet towels or submerged in water when this method of cooling is used. If sponging is used, it should always be used in conjunction with anti-fever medications

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4. **Medications:** The most effective way to treat fever is to use a medication such **paracetamol (Calpol, Panado, Empaped)**, **ibuprofen (Neurofen, Ibumol)** and **mefenamic acid (Ponstan, Ponstel, Fenamin)**. These treatments can reduce the child's discomfort and lower the child's temperature by 1 to 1.5° C. **Aspirin (Disprin) is not recommended for children under the age of 12 years.** Treat your child according to weight instead of age.

Recommended dosages is as follows:

Paracetamol: 15mg/kg per dose 4hourly

Ibuprofen: 5mg/kg per dose 8 hourly

Mefenamic acid: 6.5mg/kg per dose

Combination medication (**Lotem, Myprodol, Mypaid, Mybulen**) can also be used in children >2 years.

Never use mefenamic acid and ibuprofen products simultaneously and rather use paracetamol products if your child is dehydrated.

BOX 1: Who should be evaluated by a doctor?

- Infants less than 3 months old with a temperature of 38°C or more, regardless of how the infant appears
- Children who are older than three months who have a temperature of 38°C or greater for more than 3 days OR who appear ill (eg, fussy, clingy, refusing to drink fluids)
 - Children who are three to 36 months who have a temperature 39°C or greater
 - Children of any age whose temperature is 40°C or greater
 - Children of any age who have a febrile seizure. Febrile seizures are convulsions that occur when a child (between 6 months and 6 years of age) has a temperature greater than 38° C
 - Children of any age who have a fever and have a chronic medical problem such as heart disease, cancer, HIV or sickle cell anemia
 - Children who have a fever as well as a new skin rash
 - Children who has travelled to malaria area in last two months
 - When you notice the following: difficult to wake up/respond, inconsolable crying, blue lips, tongue or nails, difficulty breathing, severe headaches or neck stiffness, severe abdominal pain, leaning forward and drooling

MEDICINE GUIDELINE

Weight	Calpol/Panado (120mg/5ml)	Empaped suppository	Neurofen/Ibumol (100mg/5ml)	Ponstan/Ponstel (50mg/5ml)	Ponstan suppository
3 - 5.9kg	2.5ml	–	1ml	2.5ml	-
6- 7.9kg	3.5ml	125mg	1.5ml	2.5ml	-
8- 11.9kg	5ml	125mg	2.5ml	5ml	125mg (one)
12-13.9kg	7.5ml	250mg	3ml	7.5ml	125mg (one)
14 - 20kg	10ml	250mg	3.5ml	10ml	-
20 - 24kg	½ - 1 tablet	–	5ml	12ml	-
24 -30kg	1 tablet	-	5.5ml	15ml	-
How often?	4 to 6 hourly	6 hourly	8 hourly	6 hourly	8 hourly