



## Don't always fight fevers in babies and children

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Many parents fear the worst when their child has a fever and for this reason will seek medical help. While all children will get a fever at some stage in their lives, not all fevers need to be treated. It is important to know why we don't always need to treat a fever and also when it is important to refer a child with a fever to a doctor.

### What is a fever?

A fever is an increase in the body's temperature in response to an illness. In other words, the fever does not cause the illness, but is the sign of an underlying illness.

### What is normal temperature?

On average, normal temperature is considered to be 37°C. However, this temperature may fluctuate slightly depending on age, time of day, level of activity, etc.

An abnormal body temperature, or fever, depends on the age of the child and in what part of the body the temperature was taken.

- In neonates and children from birth to three years: a rectal temperature reading  $\geq 38^{\circ}\text{C}$  or an axillary (armpit) temperature above  $37.2^{\circ}\text{C}$  is considered a fever.
- In older children, an oral temperature reading  $\geq 37.8^{\circ}\text{C}$  is considered a fever.

In general, however, a rectal temperature above  $38^{\circ}\text{C}$ , an oral temperature above  $37.8^{\circ}\text{C}$ , an axillary temperature above  $37.2^{\circ}\text{C}$  and a tympanic (ear) temperature above  $37.5^{\circ}\text{C}$  is considered to be a fever.

### When do we treat a fever?

In most cases, in otherwise healthy children, a fever is not always a sign of any serious underlying illness and may even help the body fight infection. However, it may also cause a child to feel uncomfortable, by increasing the heart rate and putting stress on the lungs and metabolic systems. While this is not a problem in otherwise healthy children, this stress may be dangerous to certain children with heart or lung problems. The chance of a child becoming dehydrated is also increased when a child has a fever.

It is more important to understand or determine what is causing the illness before deciding on what to do about the fever. Often, a fever is due to an underlying viral illness, which usually clears on its own without medication. In a few cases, however, it may indicate a more serious bacterial infection, such as meningitis or pneumonia. Whether or not the fever responds to antipyretics (anti-fever medication) does not determine if the underlying illness is bacterial or viral. Similarly, the height of a fever is not always a measure of how sick the child is. A fever will not make an illness worse, nor will it cause brain damage.

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### Managing a child with a fever

- It is important to ensure that the child increases his/her fluid intake. This will help to decrease the risk of dehydration. Liquids in the form of water, diluted apple juice or even ice-llies or jelly may be offered. Rehydration solutions should be given if the child is vomiting or has diarrhoea.
- Make sure the child is kept as quiet as possible. Keep the child at home until the child's temperature has returned to

normal without the use of an antipyretic for 24 hours.

- Do not place the child in too many clothes or overwrap the child with blankets.
- Sponge baths to lower a fever are no longer recommended and may make the child more uncomfortable.
- The decision to reduce a fever with an antipyretic (paracetamol or ibuprofen) should only be made if the child is uncomfortable, e.g. has body aches, sore throat, etc.

## Medication and dosing

The most commonly used antipyretics are paracetamol or ibuprofen. It is important to never give a child under 18 years of age aspirin, due to the risk of Reye's Syndrome.

In order to determine the correct dose, paracetamol and ibuprofen should be dosed according to the child's weight and not age.

Either paracetamol or ibuprofen may be given. Using paracetamol and ibuprofen together, or alternating the two, is no longer recommended, as the benefit has been shown to be limited. If the child's discomfort has not improved three to four hours after giving either paracetamol or ibuprofen, it may be beneficial to switch from the one to the other.

- *Paracetamol*: Paediatric dose according to weight: oral or rectal (20 mg/kg/dose 6 hourly; maximum 90 mg/kg/24 hours). Refer to doctor for infants under three months of age.
- *Ibuprofen*: Dose according to weight from six months of age or 7 kg: (5 mg/kg every four to six hours; maximum of 20 mg/kg/day in divided doses).

Continue with antipyretics only for as long as the child appears uncomfortable. If the fever and discomfort persist after two to three days, the child should be referred to a doctor.

**“It is more important to note how the child appears or behaves than the height of the fever.”**

## When to refer

Ask the parent/caregiver the following questions in order to determine whether or not a child will need to be referred to a doctor:

If there is an answer of “yes” to any of these questions, immediate medical attention is required:

- Is the child younger than three months?
- Is it difficult to get the child to drink?
- Does the child seem abnormally drowsy or seem unconscious?
- Does the child have a stiff neck or severe headache?
- Does it seem as if the child is struggling to breathe?
- Has the fever persisted for more than two or three days?
- Has the child had a seizure?

- Is the parent/caregiver concerned for any other reason?
- Has the child been vomiting repeatedly?
- Does the child seem extremely irritable or have a weak, inconsolable cry?
- Does the child have a heart problem, sickle cell anaemia, diabetes, cystic fibrosis, or any other serious illness?
- Has the child developed a rash?
- Does the child have any symptoms of dehydration? \*

\* Signs of dehydration include:

- sunken fontanelle (in infants)
- no tears when crying
- eyes appear sunken
- mouth is dry
- child on the whole does not look well

If the answer is “no” to all of the above questions, then an antipyretic may be recommended in order to improve the comfort of the child. Counsel the parent/caregiver to look out for any of the above symptoms and take the child to the doctor immediately if they do, or if the child deteriorates.

### Points to remember:

- Any child under three months of age with a fever must immediately be referred to a doctor for evaluation.
- The main reason to use antipyretics should be to make the child more comfortable and not only to reduce fever.
- Regular fluid intake should be encouraged to prevent dehydration. It is not necessary to force the child to eat.
- Antipyretics should be dosed according to weight of the child, rather than age. The dose should be carefully measured with a graduated dosing syringe/medicine measure.
- It is more important to note how the child appears or behaves than the height of the fever.
- A fever does not have to return to normal. Even a slight decrease will make the child feel more comfortable.

## Bibliography

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