

Common Health Conditions series

Fever

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We are all familiar with fever, in that it refers to an increase in body temperature. Mostly, we associate fever with something 'wrong' going on in our body, possibly an infection. However, is fever in itself 'bad'? What causes a fever and more importantly, what does a fever warn us about?

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Causes of Fever

Fever is a reaction of the body to kill bacteria, fungus or virus that cannot live at a higher temperature. Moreover, the body can defend itself more efficiently at a higher temperature. Therefore, low grade fever (from 37 to 38 degrees Celsius) may not require treatment. Other possible foreign matter that triggers fever may be drugs or toxins. Fever is triggered by pyrogens which communicate with the hypothalamus that controls the body's temperature. The body will proceed to generate and retain more heat, thus resulting in a fever. A fever is a common symptom of infections, which may be due to many reasons, some of the more common causes of fever are:

- In children, immunization or teething
- Bacteria or viral infection, including hand-foot-mouth disease
- Gastroenteritis
- Urinary tract infection
- Pneumonia
- Chicken pox
- Dengue fever



Warnings from Fever

Normal oral temperature is 37°C and as body temperature varies about 0.6°C, one is considered to have fever if over 38°C. The body temperature tends to be higher in the evening, at the second part of the menstrual cycle and after exercise. For infants, fever above 38°C should be attended by doctor immediately. For families with children, mercury thermometers should be avoided in case of accidental exposure. Tympanic (ear) thermometers are less accurate for infants and oral thermometers are for older children and adults. A fever may also be accompanied by other symptoms such as:

- Muscle and joint ache
- Fatigue
- Shivers and chills
- Headache
- Sweating
- Loss of appetite
- Dizziness
- Heart palpitations

If the fever is accompanied with vomiting, diarrhea, blisters, bruise, rash, ear pain, sore throat or other symptoms that cause discomfort, it could signify the presence of health conditions that require prompt treatment. For children who has fever

and cannot be woken up, or is unable to stop crying, walk, breathe, have a very bad headache or stiff neck, emergency treatment should be sought.

Prolonged high fever can result in severe complications, for instance:

- Convulsion or seizures
- Delirium
- Dehydration

For those with health conditions such as AIDS, cancer, diabetes, heart disease, autoimmune conditions, consultation with doctor should be sought whenever there is fever. Elderly and infants whose immune systems are not as robust ought to seek treatment promptly. Should a fever last longer than one day for young children or the child is not his or her normal self, parents should bring the child to see a doctor.

Treatments of Fever

Fever is not an illness but can, in fact, be considered a physiological mechanism that has beneficial effects in fighting infection. Therefore low-grade fevers that do not cause discomfort may not require treatment nor require the need to awaken patients at night to take fever medication. However, western approach typically treats fever with medication such as paracetamol or ibuprofen. According to the American Academy of Pediatrics, both paracetamol and ibuprofen have potential side effects and the risks should be taken seriously. Paracetamol has been linked to asthma, while there have been reports of ibuprofen causing stomach ulcers and bleeding, and leading to kidney problems.

Ibuprofen has to be taken with food to prevent nausea or vomiting. For children, it is important to see a doctor for the right dosage, including checks if other medications such as that for cough or flu has overlapping ingredients. Aspirin should not be taken by children or adolescents as it is linked to the fatal Reye's syndrome. If the cause of the fever is identified, it is then treated to limit complications from the underlying health condition and the fever.

Traditional Chinese Medicine (TCM) treatments always start with a diagnosis to determine whether it is external causes or internal energy and blood deficiencies. Individualized treatment will then be prescribed, ranging from herbal medication, acupuncture to massage for children. TCM treatments emphasize on regulating the 'Ying' & 'Yang' elements of the body in order to restore body balance, so as to expel the internal heat and facilitate the body to resolve fever using the body's own internal defence system. These are more natural treatment options which are meant to strengthen the body instead of temporarily bringing down the fever.

Rest is important during fever, as the body is likely fighting an infection. Avoid overdressing or staying in a hot room to prevent further increase in temperature. Showers can be taken using lukewarm water and not cold water. There is misconception that using ice or alcohol helps to bring down the fever (as the skin feels cool after) but these actually raises the body temperature due to shivering. Drink plenty of fluids and if water is not palatable to a child during fever, experiment with popsicles and soup.

Fever Prevention

As fever is a symptom, the prevention of it is through preventing the underlying cause. Since most fevers are due to infection, maintaining proper hygiene and avoiding persons who have infection can reduce the likelihood of fever. Remember that the fever accompanied with other symptoms gives us an indication of the underlying cause, seek treatment instead of dismissing the fever as minor problem.

