# Fever: A Hot Topic For Parents

#### What is a fever?

A fever is a temperature of 100.4 degrees Farenheit and higher.

The body has several ways to maintain normal body temperature. The organs involved in helping with temperature regulation include the brain, skin, muscle and blood vessels. The body responds to changes in temperature by:

- Increasing or decreasing sweat production
- Moving blood away from, or closer to, the surface of the skin
- Getting rid of, or holding on to ,water in the body
- Naturally wanting to seek a cooler or warmer environment

When your child has a fever, the body works the same way to control the temperature, but it resets its thermostat at a higher temperature. The temperature increases for a number of reasons:

- Chemicals, called cytokines and mediators, are produced in the body in response to an invasion from a germ, or malignancy.
- The body is making more macrophages, which are cells that go to combat when intruders are present in the body. These cells actually "eat up" the invading germs.
- The body is busily trying to produce natural antibodies, which fight infection. These antibodies will recognize the infection next time it tries to invade.
- Many bacteria are enclosed in an overcoat-like membrane. When this membrane is disrupted or broken, the contents that escape can be toxic to the body and stimulate the brain to raise the temperature.

#### What conditions can cause a fever?

The following conditions can cause a fever:

- Infectious diseases (bacteria, viruses, fungi, parasites)... by far the most common cause of fever.
- Certain medications
- Heat stroke
- Blood transfusion
- Disorders in the brain
- Malignancies (cancer)

### What are the benefits of fever?

A fever actually helps the body destroy its invader germs. It also stimulates an inflammatory response, which sends all kinds of substances to the area of infection to protect the area, prevent the spread of the invader germ, and start the healing process.

## What are the symptoms of fever?

Children with fevers may become more uncomfortable as the temperature rises. The following are the most common symptoms of fever. However, each child may experience fever symptoms differently. In addition to a body temperature  $\geq 100.4$  degrees F, symptoms may include:

- Your child may not be as active or talkative as usual
- Your child may seem fussier, less hungry, more thirsty, and more "clingy"
- Your child may feel warm or hot. Remember that even if you child feels like he/she is "burning up", the actual body temperature may not be that high.
- Your child's breathing rate and/or heart rate may be increased.
- Your child's skin may appear more flushed, or reddened.
- High fever can sometimes cause more disorientation, and fatigue.

## When should a fever be treated?

If your child is not uncomfortable with his/her fever, then the fever does not need to be treated at all! Only give fever-reducing medications (acetaminophen, ibuprofen...do NOT give a child aspirin!) if your child is uncomfortable, feeding and drinking poorly, or sleeping poorly due to discomfort. If your child has been diagnosed by his/her doctor as having a lung illness (bronchitis or pneumonia), using medication may help to ease any breathing discomfort.

Bottom line: Treat the child, not the number! Treating your child's fever will NOT help the body get rid of the infection any quicker, it will simply relieve discomfort associated with the fever. In fact, using fever-reducing medications too often early during an illness may actually INCREASE the severity and duration of your child's illness!

When treating fever with a fever-reducing medication, your goal is to make your child more comfortable, not to make his/her temperature 98.6 degrees. If your child is uncomfortable with a fever of 102°, and feels much more comfortable after medication even though his temperature is still 100°, you do NOT need to give more or another medication.

# What else can I do to make my child feel more comfortable?

Dress your child lightly – excess clothing will trap body heat and cause the temperature (and the discomfort) to rise. Encourage your child to drink plenty of fluids, especially water – when your child has a fever, he/she needs to DOUBLE his/her fluid intake. Place cool washcloths over his/her forehead, neck, and groins if he/she is very uncomfortable, or consider a lukewarm bath.

# When should I call my child's doctor?

- If your child is under age 2 months and has a fever of 100.4 degrees F or greater
- If your child older than age 2 months has a fever >104.0, or has had a fever for >3 days
- If your child's fever went away for more than 24 hours and has now returned
- If your child is crying inconsolably, is difficult to awaken, has a stiff neck, has a purple rash, has burning with urination, or is having difficulty breathing