



# MIDDLEBORO PEDIATRICS

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## FEVER

### DEFINITION

#### Diagnostic Findings

The strict definition of fever is a rectal temperature over 100.4° F. When a temperature is measured either orally or under the armpit, the temperature will be somewhat underestimated, but not more than a degree. When reporting the temperature to our office, do not add anything to the measurement you got, simply tell the temperature you got and the method used. For instance: “My child has a 101.7 degree temperature measured orally”.

The body's average temperature when it is measured orally is 98.6° F, but it normally fluctuates during the day. Temperatures will generally range from 97° to 100° F.

#### Causes

Fever is a symptom, not a disease. Fever is the body's normal response to infections and plays a role in fighting them. Fever helps the body's immune system. Fevers are not harmful even if the temperatures reaches 104° , 105° , or even 106° F. Most fevers are caused by viral illness; some are caused by bacterial illness. Teething does not cause fever.

#### Expected Course

Most fevers with viral illnesses range between 101° and 104° F and last for 1-3 days, sometimes longer. In general, the height of the fever doesn't relate to the seriousness of the illness. How sick your child acts is what counts. Fever causes no permanent harm until it reaches 107° F. Fortunately, the brain's thermostat keeps untreated fevers below this level.

#### Cautions

Although all children get fevers, only 2-3% develop a brief febrile seizure. This type of seizure is generally harmless and will not cause long term problems. Since a seizure accompanying a fever may not necessarily be a harmless febrile seizure, we recommend that a child be immediately brought to the Emergency Room the first time he/she has a seizure with fever. If a child who has previously had one or more febrile seizures has another seizure, the child should be seen in our office within the next 24 hours.

## HOME CARE

### Acetaminophen (Tylenol, Tempra, etc.)

Remember that fever is helping your child fight the infection. Use drugs only if the fever is over 101° F. and preferably only if your child is also uncomfortable. Give the correct dosage for your child's age every 4 to 6 hours, but no more often.

Two hours after they are given, these drugs will usually reduce the fever by 2° to 3° F but not always. **The primary reason for treating a fever is for comfort.** It doesn't matter that the temperature has not decreased much if at all as long as the child feels better. Medicines do not bring the temperature down to normal unless the temperature was not very elevated before the medicine was given. Repeated dosages of the drugs will often be necessary because the fever will go up and down until the illness runs its course. You may repeat a dose of Acetaminophen every 4-6 hours if the temperature is still 101° F. If your child is sleeping, don't awaken him for medicines.

CAUTION: The dropper that comes with one product should not be used with other brands or strengths.

**Dosages of Acetaminophen:** The dose for children ages 2 years and above will be on the bottle. We recommend dosing by weight, rather than by age. For children under age 2 years, we have dosage charts available at our office.

### Ibuprofen (Advil, Motrin, etc.)

Ibuprofen and acetaminophen are similar in their abilities to lower fever, and their safety records are similar. One advantage that ibuprofen has over acetaminophen is a longer-lasting effect (6 to 8 hours instead of 4 to 6 hours). However, acetaminophen will take effect a little quicker after taking a dose compared to ibuprofen.

**Dosages of Ibuprofen:** The dose for children ages 2 years and above will be on the bottle. We recommend dosing by weight, rather than by age. For children 6 months to 2 years, we have dosage charts available at our office. Do not give Ibuprofen to infants under 6 months.

### Combining Acetaminophen and Ibuprofen

We generally recommend using a single medication for fever control. If you try either medication and your child has not received adequate relief (remember relief of discomfort is the primary reason for using either medication, not fever reduction), then try the other medication when he is due for the next dose. If neither medication is giving your child adequate relief, you may try giving both medicines however this is generally not needed. If you do give both medicines, you may alternate them at 3 hour intervals. Be aware that this schedule increases the chance of stomach upset.

## **Cautions about Aspirin**

The American Academy of Pediatrics has recommended that children (through 21 years of age) not take aspirin if they have chicken pox or influenza (any cold, cough, or sore throat symptoms). This recommendation is based on several studies that have linked aspirin to Reye's syndrome, a severe encephalitis-like illness. Most pediatricians have stopped using aspirin for fevers associated with any illness.

**CAUTION:** A hidden source of aspirin that is commonly overlooked is Pepto-Bismol. Don't give your child Pepto-Bismol if he has a fever.

## **Sponging or Luke-Warm Baths.**

Sponging or placing a child in a luke-warm bath are usually not necessary to reduce fever. Never do either method without first giving acetaminophen or ibuprofen. Sponge or place your child in a luke-warm bath immediately only in emergencies such as heatstroke, delirium, a seizure from fever, or any fever over 106° F. In other cases sponge or place child in a luke-warm bath only if the fever is over 104° F, the fever stays that high when you take the temperature again 30 minutes after your child has taken acetaminophen or ibuprofen, and your child is uncomfortable. Until acetaminophen or ibuprofen has taken effect (by resetting the body's thermostat), sponging will just cause shivering, which is the body's attempt to raise the temperature.

If you do sponge or place child in a luke-warm bath, use lukewarm water (85° to 90° F). (Use slightly cooler water for emergencies). If your child shivers, raise the water temperature or wait for the acetaminophen or ibuprofen to take effect. Don't expect to get the temperature below 101° F. Don't use rubbing alcohol or even add it to the water; it can cause a coma when the fumes are breathed in.

## **Extra Fluids**

Encourage your child to drink extra fluids, but do not force him to drink. Popsicles and iced drinks are helpful. Body fluids are lost during fevers because of sweating.

## **Less Clothing**

Bundling can be dangerous. Clothing should be kept to a minimum because most heat is lost through the skin. Do not bundle up your child; it will cause a higher fever. During the time your child feels cold or is shivering (the chills), give him a light blanket.

## **CALL OUR OFFICE**

### **IMMEDIATELY if**

- Your child is less than 2 months old.
- Your child is crying inconsolably.
- Your child is difficult to awaken.
- Your child's neck is stiff.
- Any purple spots are present on the skin.
- Breathing is difficult and no better after you clear the nose.
- Your child is unable to swallow anything and drooling saliva.
- Your child looks or acts very sick (if possible, check your child's appearance 1 hour after your child has taken acetaminophen or ibuprofen).

### **Within 24 hours if**

- Your child is 2 to 4 months old.
- The fever is over 104° F.
- Your child also has a sore throat or earache.
- Burning or pain occurs with urination.
- Your child has had a fever more than 24 hours without an obvious cause or location of infection.

### **During regular hours if**

- Your child has had a fever more than 48 hours.
- The fever went away for more than 24 hours and then returned.
- Your child has a history of febrile seizures.
- You have other concerns or questions.