## **Fever**

## **Under Two Months of Age**

Fever under two months of age is an emergency. Please contact me immediately and do not administer Tylenol. Fever in this age group is defined as a temperature of 100.5 degrees Fahrenheit or greater rectally. One should also call for an axillary temperature greater than or equal to 100 degrees. A temperature should be taken anytime your infant is not acting normally. This includes a variation in sleep, increased irritability, increased fatigue, poor feeding, etc. The most accurate method of assessing an infant's temperature is the rectal thermometer. Please avoid the tympanic or ear thermometers. They are highly inaccurate, especially under three months of age. Don't waste your money. The regular commercial tympanic thermometers often lose their calibration. Also, the accuracy of the temperature is very dependent on the skill of the examiner unlike the old-fashioned rectal thermometer.

## **Over Two Months of Age**

Fever in this age is no longer considered an emergency. It is defined as a temperature greater than or equal to 101 degrees rectally or 100.5 degrees orally. Children tend to run high fevers (even 104 or 105 degrees) even with illnesses as mild as a cold or ear infection. If these fevers do occur it is important not to panic. Fever is the body's natural response to an insult that stimulates the body's inflammatory defenses, and in children the insult is most commonly a viral infection. The various components of the body's immune system are actually enhanced by elevated temperatures. Many parents are under the misconception that if a child has a fever it will continue to rise to potentially life-threatening levels if left untreated. This will not occur in the absence of hyperthermic insults, such as dehydration and closed, hot automobiles. In children who are neurologically normal; the body does not allow fever to rise out of control to potentially lethal levels. Remember fever itself is not a disease but rather a sign of a disease. As such a sign it still needs to be monitored. For example, the monitoring of a fever curve could help the physician assist you in the diagnosis of your child's illness. Fever is usually at its highest during the night hours.

What should be done after office hours should your child have a fever? First one should administer the appropriate dose of acetaminophen (Tylenol) for your child's weight. Please refer to the table located on the Fever Dosing Chart of this Website for the proper dosage. If your child is vomiting, the equivalent milligram dose of Feverall can be given rectally instead of orally and achieve the same effect without risking your child vomiting back the medication. Note that Feverall is also acetaminophen but in suppository form. It takes approximately one hour for these medications to take effect. If the fever is greater than or equal to 103 degrees rectally, you may sponge your child with tepid water every 10 minutes up to a solid hour until the fever resolves. You may eliminate this step if your child is irritated by the sponge bath as the fever will often resolve spontaneously with or without medication. Do not use alcohol baths as these have now been found to be dangerous to young children and cause dehydration or low blood sugar reactions. Note that the duration of action of Tylenol is approximately 3 to 4 hours. Your child's fever will most likely return at that time. Therefore, the acetaminophen may be administered every 3 to 4 hours around the clock until your child can be evaluated in the office the following morning during office hours. Note that fever usually goes down in the morning only to return and increase as the day progresses. Fever is not an emergency in the middle of the night in this age group as long as it responds appropriately to medication and baths; however, your child should still be seen the following day during office hours, even if the fever has resolved. While the fever is down, your child should also be able to tolerate sips of liquids and respond appropriately to his/her surroundings. If not, you should contact the physician immediately. Finally, your child should be dressed in loose-fitting clothes or stripped of all clothing during these episodes. Avoid over bundling.

Finally, a word about Children's Motrin; many people will tell you to skip Tylenol (acetaminophen) and proceed directly to Children's Motrin because it works better and its duration of action is longer. While these facts are true, it is also associated with increased side effects such as gastrointestinal irritation. Acetaminophen should always be tried first. If one hour after acetaminophen and sponge bathing the fever has not dropped to below 101 degrees then one should immediately administer an appropriate dose of Children's Motrin according to the dosing chart that can be found

on the <u>Fever Dosing Chart</u> of this website. Note these dosages are actually higher than the ones that are listed on the package. Please defer to the dosing chart on this website. If the Children's Motrin along with tepid bathing does not alleviate your child's fever in one hour's time, then contact the physician on call immediately. Otherwise continue administering Children's Motrin every five to six hours as needed until your child can be evaluated in the office the following day. Note that continuing Motrin for several days without being evaluated by the pediatrician may be delaying treatment for a potentially serious problem. Motrin merely relieves the fever and allows your child to be more comfortable, especially at night. It does nothing to fight infection or "cure" an illness.

Remember fever is not the enemy. It is also not a disease but rather a sign of an illness. A child should be evaluated within twenty-four hours of onset of fever by her pediatrician.

## **Taking Your Child's Temperature**

- 1. Taking the temperature rectally: This is the preferred method, especially in babies. Lay the baby on its back with the legs held together, or lay the baby on its stomach, insert the bulb of the rectal thermometer with a small amount of lubricant until you can no longer see the silver tip (approximately 1/2 inch). The rectal thermometer is the one with the round silver bulb. You will not harm your baby by doing this procedure. Even if the infant is squirming, you cannot perforate the rectum! Hold the thermometer in place for approximately two minutes prior to removing and reading.
- 2. Taking the axillary temperature: One may use either a rectal or an oral thermometer under the arm. It must be held firmly under the arm, with the arm flush against your child's side for a full five minutes to ensure an accurate reading. This makes it a more difficult procedure and therefore less accurate. It is more likely to fluctuate with changes in your child's attire or the surrounding room temperature.
- **3. Taking an oral temperature:** This method should not be utilized in children less than five years of age. Do not give any hot or cold liquids to your child for the thirty minutes prior to taking his/her temperature. Place the bulb end of an oral thermometer under the tongue and have your child

close his/her mouth without biting the thermometer. Leave it in place for two minutes before removing and reading. Even if the thermometer should break, the mercury is not poisonous, even if swallowed!

- **4. Use of Tympanic (Ear) thermometers:** This method should not be utilized in children of any age. The rectal temperature is the preferred measurement in children under three years of age. An oral temperature may be obtained in a cooperative child age three years or older. If this cannot be easily accomplished then continue with rectal measurements. The tympanic readings are highly inaccurate and also very dependent on the skill of the examiner.
- **5. Caring for thermometers:** Note that before using either a rectal or oral thermometer, one should shake down the thermometer until the mercury line is below 96 degrees. After each use one should shake the thermometer down. Clean the thermometer in warm, soapy water and wipe with rubbing alcohol. Return the thermometer to its appropriate case.
- \* Note, when using the following charts located on the Fever Dosing Chart of this Website, one should calculate dosage according to the approximate weight range. If the weight is unknown then judging by age is the next best way.