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Fever

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Every child will develop a fever at some point and the challenge is for parents to know when to be concerned. Waking up in the middle of night and your child is flushed and hot to touch, a lot of things can go through your mind. You know something is wrong, but is this a life-threatening illness or is this just a cold? Should you take out the thermometer, should you treat the fever, or should you call the doctor? Fever can be very scary for many parents. Anxiety level rises as their child's temperature climbs. Parents may feel helpless, frustrated and are unsure of what to do. In the past, doctors advised treating a fever on the basis of temperature alone, but now doctors recommend looking at both the temperature and how the child's overall condition is. In this article, we will be discussing what is considered a fever, what causes fever, how and when to treat fever and when to call the doctor concerning a fever. Hopefully we can alleviate some anxiety around the issues of fever and give you more information and control of the situation.

What is considered a fever?

In healthy children, fever, by itself, is not a disease but usually a symptom of another problem. Fever means that the body temperature is above the normal level which is a very good thing. When your child's body detects an infection or other illness, the brain responds by raising the body's temperature above normal level



which subsequently turns on the body's natural defense system to attack and destroy invading organisms. The normal temperature is around 98.6°F plus or minus one degree. Your child's normal temperature will vary with his or her age, activity, and the time of day. Infants tend to have higher temperatures than older children. Some children's temperature is highest between late afternoon and early evening and lowest between midnight and early morning. Here are the values that are considered a fever: a rectal temperature over 100.4 °F/ 38°C; oral temperature (child >4 years old) above 100 °F/37.8°C; axillary(under the arm) temperature above 99°F/37.2°C; ear tympanic membrane temperature above 100.4°F/38°C in rectal mode or 99.5 °F/37.5°C in oral mode; or forehead temperature above 100.4 °F/38°C. The most accurate way to measure your child's temperature is done rectally. However, when the proper method is used, it is possible to accurately measure temperature in the mouth (for children >4 years old). Axillary, ear, and forehead measurements are easier and more convenient than rectal or oral temperatures but they are less accurate and may need to be confirmed with an oral or rectal reading.

What causes fever?

The most common cause of fever in children is infection. Fever most commonly accompanies respiratory illnesses such as croup, pneumonia, ear infections, influenza, severe cold, and sore throat. It may also occur with infections of the bowel, urinary tract, blood, inflammation of brain and spinal cord,

and a wide variety of viral illnesses. There is little or no scientific evidence to support the common view that teething causes fever. Temperatures above 102°F should not be attributed to teething and other causes of fever should be investigated. Bundling a child who is less than 3 months old in too many clothes or blankets can increase the child's temperature slightly, however a rectal temp of 101°F or greater is not likely to be related to the bundling and should be evaluated. Also, some childhood immunizations can cause fever and the timing of fever varies depending upon which vaccination was given.

When and how should I treat my child's fever?

Once you've identified that your child has a fever, note how sick does he or she look to you? Fever can make a child feel uncomfortable. It can increase your child's fluid requirement, heart rate, and rate of breathing. How high the fever is usually is not the best gauge of whether your child needs to be treated and/or evaluated. It is more important to recognize how sick your child acts or looks. A minor cold or other viral illnesses can sometimes cause a rather high fever (in the range of 102°F-104°F) but probably does not mean a serious problem if your child IS playing, eating and drinking well, alert and smiling at you, has a normal skin color, and looks well after his or her temperature decreases. Healthy children OLDER than 3 months with a rectal temperature LESS than 102°F, who looks and acts normal, often do not need fever medicines unless they're uncomfortable. If you have an infant 3 months or YOUNGER with a rectal temperature of 100.4°F or higher, do not give fever medicines but call your doctor or go to the ER immediately. In very young infants, a slight fever can be a sign of a potentially serious infection even if he or she does not look sick. If your child has an underlying medical condition including diseases of the heart, lung, or brain, you should consult your doctor regarding management of fever.

The most effective method to reduce fever is to use acetaminophen (Tylenol) or ibuprofen (Advil, Motrin). The medicine starts working in about 30

minutes and by 2 hours after administration, these medicines can lower the fever 2°F to 3°F (1°C to 1.5°C). They will make your child feel more comfortable. They may not bring the temperature back to normal unless the fever was not very high



prior to medicine being given. Acetaminophen can be given to children OLDER than 3 months of age and may be repeated every 4-6 hours as needed but should not be given more than five times in

a 24-hour period. Ibuprofen can be given to children OLDER than 6 months of age and may be given every 6 hours as needed. The dose of acetaminophen or ibuprofen should be calculated based upon the child's weight and not age. Combining acetaminophen and ibuprofen or alternating the two increases the risk of giving the wrong doses of one or the other and is not routinely recommended. Also, aspirin should never be given to children under 18 years old because of concerns of a rare but serious illness known as Reye syndrome.

Fever can increase your child's risk of being dehydrated. You should encourage him or her to drink plenty of fluids. It is common for a feverish child to not be hungry. You do not have to force your child to eat but instead frequently offer fluids such as formula, milk, pedialyte, and water. Older children may eat flavored gelatin, soups, or frozen popsicles. If your child is unwilling or unable to drink fluids for more than a few hours, contact your child's doctor. Fever can also cause most children to feel tired and achy. Parents should encourage rest and keep children out of daycare or school until temperature has been normal for at least 24 hours. Also, your child's bedroom should not be too hot or too cold. Make sure it is at a comfortable temperature. Dress your child in lightweight clothing with a light cover to avoid overdressing or over bundling. Too many layers can keep body heat from escaping and raise his or her temperature. Sponging is not necessary and generally not recommended. Additionally, never use alcohol for

sponging because alcohol if absorbed through skin can cause poisoning.

When should your child with fever be evaluate by his or her doctor?

The precise temperature that should prompt a call to the doctor depends on several factors such as the age of the child, the illness, and whether there are other symptoms. Fever usually can occur with other symptoms. These concerning symptoms can signify a potentially serious illness even if there is no fever. Seek emergency care if your child has any of these signs: 1) trouble waking up or is limp; 2) trouble breathing; 3) blue lips, tongue or nails; 4) extreme irritability or fussiness; 5) inconsolable; 6) severe headache, 7) severe abdominal pain, 8) stiff neck; 9) infant's soft spot on the head appears to be bulging or caving in; 10) leaning forward and drooling; 11) rash or purple spots that look like bruises on the skin and was not present before he or she got sick; or 12) refuses to drink anything or acts too sick to drink enough. Call or visit your child's doctor if he or she: 1) has diarrhea >2 to 3 days; 2) has vomiting >1 day; 3) looks dehydrated (urinating less than usual, no tears when crying); 4) has specific symptom, ex: sore throat, sinus pain or ear pain; 5) has pain when urinating.

In most cases, a child with a fever can be watched and/or managed at home. However, it is important for parents to know when he or she needs to be evaluated by a doctor. Take your child to his or her doctor if your child is: 1) a very young infant < 3 months old and has a rectal temperature of 100.4°F or higher, No fever medicines is to be given to an infant younger than 3 months unless instructed by a doctor; 2) Between 3 and 36 months and has a rectal temperature of 100.4°F or higher for more than 3 days; or 3) Between 3 and 36 months old and has a rectal temperature of 102°F or higher. Also children of any age should see a doctor if they have: 1) Oral, rectal, ear, or forehead temperature of 104°F or higher; 2) Axillary (under the arm) temperature of 103°F or higher; 3) A seizure caused by a fever; 4) Fevers that is recurrent (even if lasting only a few hours); 5) A fever with a chronic medical condition,

such as heart disease, cancer, lupus, or sickle cell anemia; or 6) A fever with a new skin rash.

In summary all children get fevers at some point, and in most cases they're completely back to normal within a few days. For children >3 months, how your child acts and looks is more important than the reading on your thermometer. Children can get cranky when they have a fever and this is normal and should be expected. In most cases, it is not necessary to treat a child's fever. A healthy, active, playful child who is older than 3 months with a rectal temperature less than 102°F does not require fever treatment unless he or she is uncomfortable. Fever is a normal response to infections. By itself, fever is not an illness but a symptom and is important in helping your child fight his or her infection.

If you have questions or are concerned about your child, please contact our office at 281-374-9700.