

Healthy Babies, Healthy Kids, Healthy Futures™
Healthy Habits that start in childhood last a lifetime.



DR GLASSER'S FEVER HANDOUT

In children, fever is usually a sign of infection. It is a part of the way the body fights off an infection, and itself is not a disease. There are a lot of deep seated fears about fevers that go back to a time before immunizations and antibiotics, when fevers were often associated with infections that were severe and life threatening. That is not to say that we don't still have those kinds of infections, because we do, and we will continue to have them in the future. However, by vaccinating both children and adults, and by proper use of antibiotics, we can decrease our risk of them greatly.

What defines a fever? The normal body temperature (taken rectally/orally, which is the "gold standard") is between 97.4 and 100.4 degrees Fahrenheit. Any body temperature below 97.4 is considered hypothermia and is of just as much potential concern as any body temperature above 100.4, which is defined as hyperthermia or fever.

What are the ways to take a temperature? Nowadays there are many ways to take a temperature; some are more accurate than others are. The "gold standard" is either rectally or orally. In young children, an oral temperature is simply out of the question and a rectal temperature is the best. It used to be that a glass mercury thermometer was the only option. These thermometers are neither easy to use nor safe for the environment and should be avoided. I recommend a rectal digital thermometer for all children under 2 years of age. The ear thermometers in children under 6 months and even older can be notoriously unreliable. I discourage using them at all in babies under 6 months. The forehead thermometers are also not reliable, and the arterial forehead thermometers that are reliable are very expensive, and not worth it.

Taking a temperature under the arm, requires that you add 1 degree to get the equivalent rectal temperature, and for those parents who don't like the idea of doing a rectal temperature, is an ok place to start when evaluating your child's fever. If, after you add 1 degree, the temperature is a fever, you may consider doing a rectal temperature to improve accuracy.

When do we worry about fevers? This is a complicated question and depends upon a number of factors listed below:

- **Age of the child.** A doctor should evaluate any child under 3 months with a fever or hypothermia as soon as possible preferably in the emergency room as the child will need to undergo blood tests, urine tests, and a spinal tap to check for a life threatening bacterial infection. Depending on the results of the tests, the child may need admission to the hospital for antibiotics and observation until the tests come out ok. The exception to this is the 2 month old who received vaccines and has a fever of 101.5 or less within 48 hrs of the shots. That child can be given with Tylenol (no Motrin for kids under 6 mo.) according to the dosing given by the doctor (see Tylenol and Motrin dosing handout at drglasser.com under parent handouts). For children over 3 months but under 12 months, we don't get quite as worried about fevers in general and recommend that the child be seen by the doctor for any fevers that last longer than 96 hrs or are higher than 103.5. There is no danger from the fever in and of itself at 103.5, but in that age group, the likelihood of a bacterial infection is a bit higher with fevers in that range. For children 12 mo and over, again, the rule of thumb is fever > 96 hrs needs to be seen, but in this age group we don't worry about the height of the fever itself. In **any age group**, fevers approaching or exceeding 106 may be associated with brain damage and should be evaluated immediately in the emergency room. Our brains have a thermostat that under normal conditions doesn't allow the body temperature to rise above 105. Any person whose temperature is rising above 105 should be seen in the emergency room because we worry that something is wrong with the thermostat like a life threatening bacterial infection. All of the above information is based on a child having been immunized on time and up to date. If your child hasn't been properly immunized, then the risk of the fever being from a potentially serious infection is greatly increased and you should seek medical care much more promptly and aggressively.
- **Accompanying symptoms.** If a baby or young child has a fever and seems extremely irritable or abnormally quiet and withdrawn not recognizing close family members or lethargic where he/she is difficult to wake up, this is possibly an emergency. If the irritability or lethargy improves when the fever is reduced, the situation is less likely to be an emergency. A child who looks poorly with fever but seems more like normal when you reduce it is more likely to have a non-serious infection than someone who looks just as awful with the fever as without it. For older kids and teenagers, accompanying symptoms like severe headache, vomiting, stiff neck and sensitivity to light can be associated with meningitis and those kids need to be evaluated right away. In young babies, especially those under 12 months, the symptoms of meningitis may just not be there. The child just may exhibit poor feeding, irritability or be lethargic. A doctor needs to see a baby with those symptoms if they don't improve when the fever is reduced.
- **Length of time with fever.** Most virus infections, which account for most of the infections kids get, will be killed by the body's immune system within 24-96 hrs (1-4 days). Until the virus is dead, the body will continue to make fever, although sometimes the body doesn't need to make fever to kill the virus. If a fever is going on beyond 96 hrs, the child needs to be seen by the doctor and if no obvious source for the infection is found on exam, then further tests need to be done. Which tests will be done is decided on a case-by-case basis but may consist of blood tests, urine tests, chest x-rays and spinal taps.

How do I reduce my child's fever? If your child is under 3 months and not within 48 hrs of vaccines, YOU DON'T. You take the child to the emergency room and have an evaluation. Giving Tylenol to a baby this young will make it difficult for the ER doctors to properly assess the baby and make good medical decisions.

For kids over 3 months but under 6 months, you give a proper dose of Tylenol as recommended by the doctor (drglasser.com under parent handouts look for Tylenol and Motrin Dosing). You may also give a sponge bath in the tub with **warm** water to cool the baby faster. Don't use cold water because it is uncomfortable for the baby. Never sponge with rubbing alcohol, which is toxic and dangerous. When your baby has a fever, clothe him/her in light layers so the baby doesn't get too cold or too hot.

For kids 6 months and older you may give a proper dose of either Tylenol or Motrin as recommended by the doctor. It is not necessary to alternate between the two medications. The idea of treating the fever is to reduce the temperature so the child feels more comfortable, not so the fever is completely gone. There is a lot of good evidence to show that taking away the fever makes the infection take longer to go away. That being said, there is no reason to make a person suffer with their fever. If the child has a fever and is uncomfortable from it, treat it. If not, leave it alone. Don't treat a number on a thermometer, treat the child. You can give a warm sponge bath to these kids too.

This handout is designed to help parents make decisions about their child with a fever. If you have questions, you should call your doctor's office and ask for an appointment.

Call for appointments (702) 248-7337.
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