Is Fever Bad?

RJ H

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In response to a Brief that appeared in the September 1996 issue of *Pediatrics in Review* entitled Fever and Host Responses (*Pediatrics in Review.* 1996;17:330), Dr H. Rathle of Yuma, Arizona, sent us his parent education handout about fever. It reassures parents and recommends that not all fevers be treated. I pass this on to readers along with a commentary by our "In Brief" editor, Dr. Henry Adam, who also wrote the Brief on fever. I welcome reader response.

RJH

Comment: In a classic study (*Am J Dis Child.* 1980;134:176), Barton Schmitt coined the phrase "fever phobia" when he described the prevalence of misunderstanding about fever among parents bringing their children to a hospital-based clinic. He found that most parents defined fevers below 39˚C (102˚F) as "high" and that 16% actually believed that an untreated fever could rise to 43.3˚C (110˚F) or more. Almost every parent thought fever could cause harmful side effects, with nearly 50% fearing permanent brain damage. It is not surprising, then, that two thirds of these parents worried "lots" about the harm that fever might do their children, or that more than 50% used antipyretics for temperatures within the normal range.

In a private practice, Michael Kramer and his colleagues (*Pediatrics.* 1985;75:1110) found that middle-class parents were no better informed about fever than the less well-educated families that Dr. Schmitt had interviewed. Almost 50% defined temperatures in the normal range as fever and thought that temperatures of less than 40˚C (104˚F) could be dangerous, with death, brain damage, and stroke among the complications they feared. One in five of these parents would treat a normal temperature, and virtually all would treat a temperature less than 40˚C.

No wonder the use of medication to treat fever is so widespread. The British, for example, administer an estimated 68 million child-days of antipyretic drugs each year. Half the parents seen by Dr Schmitt reported doctors or nurses as being their most important source of information about fever, a claim given credence by a survey of members of the American Academy of Pediatrics (AAP) in Massachusetts (*Pediatrics.* 1992;90:851)—two of three believed fever can pose a danger to children, with 25% citing death and brain damage as potential complications of fever as low as 40˚C and almost 75% always or often recommending treatment for fever, two thirds of them for fevers below 38.9˚C (102˚F). The children may swallow the medicine, but far too often we really are treating their parents' anxieties and our own. A good dose of information will do all of us more good than another teaspoon of acetaminophen. Try taking Dr Rathle's handout.

Henry M. Adam, MD
Editor, In Brief

Parent Information Handout: Fever

Some people think that a high fever is bad, because it can cause brain damage. That's not true! If it were true, then we should all be mentally retarded, because we have all had high fever in the past. . . . The truth is that fever is one of the ways our body protects itself against infections. When we have an infection in any part of the body, we produce more heat (fever). With more heat, our body's defenses can kill germs better. So the fever is not our enemy but our friend, and it is helping the body fight the germs.

Therefore, what we need to ask is not, "What can I do to stop the fever?" but, "What is causing the fever?" Then we must decide if the cause is serious or not serious. Fortunately, most of the time, the cause of fever in children will be something that is not serious, such as an ear infection, throat infection, or the flu. Exceptionally, there may be a more serious infection. One example would be a pneumonia. With a pneumonia, there are three main symptoms:

1. A fever that stays high,
2. A cough,
3. And most importantly, shortness of breath.

Another example of a serious infection is meningitis: This is an infection that is caused by germs sitting around the brain. Fortunately, this disease is rare. Most children will not get meningitis, but will get the flu or other mild diseases. To tell the difference between a serious infection (like meningitis) and common infections, look at the whole picture, not just at the thermometer. A child could have a 104˚F fever and have meningitis. He could also have a 104˚F fever and have the flu, then recover in 3 to 4 days. We need to look at the whole picture and ask ourselves the following questions:

1. Does he look at me in the eyes?
2. Does he move his head easily from side to side, or does he act as if it hurts and he does not want to move it?
3. Does he follow what is going on around him?
4. When the fever breaks, after several hours, does he perk up, play and smile more, or does he look worse?

If the answers to these questions are good, then the child most likely does not have meningitis. If the answers to these questions are bad, then the child should be seen by a doctor right away. Fortunately, meningitis is a *rare* disease and most children will not have it.

Instead, they will have the more common infections, such as the flu.

Now that you know that the fever is our friend, you do not have to go out of your way to bring it down. The more you try to do this, the more you are doing exactly the opposite of what the body is trying to do. Putting a child in a bathtub with lukewarm water has been the advice given for a long time. However, scientifically, it does not work very well. Also, if you can remember the last time YOU had a fever, would you want to be sitting in a bathtub, or lying in bed with an extra blanket?

Tylenol® or generic Tylenol (acetaminophen) is used not so much to bring the fever down (which it does most of the time), but to make us more comfortable, because we usually feel miserable when we have a high fever. You have to use your judgement when you give Tylenol to a child. Some children have a fever and continue to play. They do not need to be given Tylenol every four hours. On the other hand, if they have a fever and feel miserable, then by all means give them Tylenol every four hours.

If the child does not have a specific symptom along with the fever, such as an earache or sore throat, then he may be having the flu. The flu is a common illness caused by a virus. In your mind, imagine that there are different families of germs. Two big families are called the viruses and the bacteria. The bacteria are the ones that can be killed by antibiotics like penicillin and amoxicillin. THESE ANTIBIOTICS DO NOT WORK AGAINST VIRUSES. Therefore, if there is a disease caused by a virus such as the flu, the cold, or the chickenpox, nothing can be done except to wait until it runs its course. With the flu, the fever usually goes up and down like a roller coaster for two to four days, then the child will get better.

Some parents have heard about seizures caused by fever. These are called “febrile seizures,” and only happen in 3 to 4 out of every 100 children. These seizures last only a few minutes, are very scary for the parents to watch, but are totally harmless. THEY DO NOT CAUSE BRAIN DAMAGE. If you have questions, please ask the doctor.

In summary, fever is our friend and is helping us to fight infections better. We need to be concerned about its causes, but not about how high the fever is. If the child perks up every once in a while and the whole picture looks good, we can watch and wait for about three days. If the picture looks worse, or the fever lasts longer than three days, the child should be seen.

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