The panicked call woke Dr. Suzanne Corrigan at 2 a.m. A woman cried, "My child has a high fever. What should I do?"

The Irving, Texas, pediatrician quickly asked: How old is the youngster? How high is the fever? What are the other symptoms? "It turned out that the fever measured 101 degrees rectally—the equivalent of 100 degrees orally," says Corrigan. "And the baby, a 15-month-old, had fallen back to a peaceful sleep."

The mother had worried that the fever might skyrocket if she didn't wake the child to give medication. Corrigan reassured her that the fever was mild and simply the body's natural response to fighting off an invader, most likely a virus. The doctor advised her to let the baby sleep, unless other symptoms appeared.

"Like many people, this mother mistakenly assumed that having a fever means you're seriously ill," says Corrigan, of the American Academy of Pediatrics. "I tell patients that fever itself isn't an illness. It's how the body revs up the immune system to defend against infection."

An unwarranted fear of elevated temperature—a common reaction—is called "fever phobia" by Dr. Barton D. Schmitt, professor of pediatrics at The Children's Hospital in Denver. Few people, says Schmitt, realize that fever itself is rarely dangerous, and by treating it aggressively with aspirin or acetaminophen, they may actually slow recovery.

Here are six surprising facts about

When to Worry About a Fever

As that little silver line creeps higher, we start to panic. But doctors have some surprising news

By Carol Krucoff
fever you should know to protect yourself and your family.

1 The concept of 98.6 as the body’s “normal” temperature is out of date. Says Dr. Philip A. Mackowiak of the University of Maryland School of Medicine: “The normal temperature is actually a range rather than one single number. And there’s a great deal of individual variation.”

The body’s natural circadian rhythms prompt daily temperature fluctuations of about one degree Fahrenheit, but some people have oscillations as wide as 2.4 degrees or as narrow as 0.1 degree. Children tend to have slightly higher normal temperatures than adults and are more likely to run high fevers in response to infection. Elderly people tend to have lower body temperatures than younger adults.

Ordinary actions can raise temperature: digesting a big meal, being in the sun, prolonged crying in babies, exercise. But body temperature rarely rises higher than about 106.5 degrees—-with two main exceptions: a trauma or tumor that damages the hypothalamus (the part of the brain controlling temperature), and, more commonly, heat stroke, which must be treated immediately to prevent damage to body organs, or death.

2 Taking medication to lower a fever may prolong illness.

Here’s how fever works: When white blood cells recognize an intruder, they release proteins that travel to the hypothalamus and prompt it to raise the body’s thermostat. The body reacts to this by generating heat, often through shivering. Many immunological functions appear to be more efficient at a higher temperature,” says pediatrician Timothy Doran of The Johns Hopkins University School of Medicine. “And some bacteria and viruses don’t grow as well at higher temperatures.”

Recent studies show that when animals are exposed to bacteria but prevented from running a fever, many die of infections they might have survived. Doran researched children with chickenpox, and found that “it took those who were given acetaminophen about half a day longer to recover” than it did those whose fevers were untreated.

While most people are probably better off not suppressing fevers that cause no discomfort, there are exceptions. Coronary patients and those with chronic conditions as arthritis and diabetes should contact a physician immediately.

To balance the risks and benefits of treating fever, a lot depends on the patient’s comfort. “Data show that fever does good, but it also can cause real discomfort—usually beginning at around 101.5 degrees,” says Dr. Allen Mitchell, professor of public health at Boston University School of Medicine. “If a fever is making you achy and miserable, many doctors recommend taking a medication such as aspirin, acetaminophen, or ibuprofen.” But, cautions Mitchell, never use aspirin to treat fever in children or adolescents, since it increases the risk of the rare, potentially fatal condition called Reye’s syndrome.

3 A fever doesn’t necessarily mean a serious illness.

“I’m much more concerned about a nonresponsive child with a temperature of 101 degrees than a playful child with a temperature of 104 degrees,” says Erdenheim, Pa., pediatrician Daniel Hyman. “Watch how the patient looks and acts, instead of relying only on the thermometer.”

This is particularly important with newborns and the elderly, since their immune systems may not be fully functional and they often won’t run a fever even when very ill. Fortunately, nature gives other indicators of infection. A sick infant may stare and have grayish skin or cold limbs. In the frail elderly, look for lethargy and mood change.

4 “High” fevers rarely cause brain damage or death.

A temperature needs to soar over 106.5 degrees, and that’s unlikely, before there is risk of brain damage. Yet when Dr. Schmitt surveyed parents, he discovered that most thought a temperature of 104 degrees or less can cause serious neurological side effects, including brain damage. His study revealed that more than half of parents gave fever-reducing medicine for temperatures of 98.6 to 100 degrees—-which are possibly normal.

“Some people get frantic,” says Schmitt, “if medication won’t get the temperature down to 98.6 Yet a correct dose will only bring a temperature down by two or three degrees, so if you start at 103, the most you can expect is to bring it down to 100.”

To counter fever phobia, Schmitt says physicians and nurses “need to tell parents the main reason for treatment is to help the child feel comfortable, not to prevent harm.”

5 If you’re sick, there’s no need to take your temperature frequently.

“The time to take a temperature is when your health-care provider asks you,” says Dr. Michael Rothenberg, co-author of Dr. Spock’s Baby & Child Care. For a doctor, a temperature reading is one of the diagnostic markers used to determine over the phone whether you should come to the office.

To find out if you have a fever caused by illness, wait until you’ve been quiet for an hour or so before using a thermometer. Rectal temperatures are the most accurate and recommended for young children; oral temperatures are preferred for older children and adults.

A rule of thumb from Dr. Boyd Shook of the Central Oklahoma Medical Group in Oklahoma City: “Unless your doctor tells you, never wake someone to take a temperature or give a fever medication. Sleep is very valuable to someone who is sick.”
If you have a fever, you don't need to stay in bed.

Sleep if you want to, but don't feel compelled. "Getting in bed and covering yourself with blankets can accentuate a problem," says internist Charles Kennedy, medical editor of the Mayo Clinic Health Letter. "While it's good to rest and avoid undue fatigue, being supine isn't necessarily beneficial." Rather than forcing yourself or your child to lie still, just relax quietly around the house.

When fever strikes, here's what doctors do advise:

**Call your physician when:** an infant three months or younger has a temperature of 100.2 degrees or more; a baby between three and six months has a fever of 101 degrees or greater; a child older than six months has a fever of 103 degrees.

For adults, call the doctor if a fever is 103 degrees or more; a temperature of 101 degrees lasts more than three days—even if there are no other apparent symptoms; a low-grade fever continues for several weeks.

Also call a doctor for fevers accompanied by: severe headache or stiff neck, mental confusion, sore throat, bad aches and pains, coughing that brings up sputum or blood, insoluble irritability or excessive sleepiness, rash or vomiting, difficulty breathing and bloody diarrhea or blood in stools.

The recent scare about "flesh eating" strep infections is a reminder, experts say, to have infected wounds examined promptly. Consult a doctor about fevers over 102 degrees when infections are evident.

**Drink plenty of fluids to avoid dehydration.** This is particularly important for elderly people, who have a greater risk of complications, such as stroke, when they are dehydrated. Drink frequently enough to pass clear urine every two hours. But heart and kidney patients should check with their physician before forcing fluids.

**Eat moderately.** It's wise to avoid heavy meals, but you should eat if you're hungry. If you have diarrhea or have been vomiting, avoid dairy products and stick to bland foods like rice, applesauce and dry toast.

**Try a gentle sponge bath.** Children with a 104-degree temperature or higher may be more comfortable if their fever is lowered with a sponge bath. But if the child has been given acetaminophen, wait 30 minutes to an hour before the bath. This will avoid chilling the youngster whose temperature is already coming down because of the medicine. Use lukewarm water, since cold water can cause chills and elevate temperature. Avoid alcohol rubs—children may absorb toxic amounts of alcohol through their skin.

**Finally, don't panic.** Remember: fever is a normal response to infection, and no major problems generally come from fever itself. As Suzanne Corrigan of the American Academy of Pediatrics puts it: "In many ways, fever is a friend, not a foe."

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