What is a normal temperature?
The body's average temperature is around 98.6°F (37°C), but it normally fluctuates during the day. Many variables determine a child's "normal" temperature. Mild elevation (100.4°F to 101.3°F [38°C to 38.5°C]) can be caused by exercise, excessive clothing, a hot bath, or hot weather. Warm food or drink can also raise the oral temperature. In addition, a child's temperature may vary depending on the time of day it is taken (higher at night) and the age of the child (younger children generally have somewhat higher temperatures than school-age children).

What is a fever?
Fever is a symptom, not a disease. It is the body's normal response to fighting infections. The elevated temperature turns on the body's immune system and makes it more difficult for bacteria and viruses to grow. A fever is defined as any temperature above 100.4°F. The usual fevers (100.4°F to 104°F [38°C to 40°C]) that all children get are harmless. If you are worried about the height of your child's fever or how long he/she has had it, always confirm it with an oral, axillary, or rectal temperature reading.

Other tips for taking your child's temperature:
- Don't bundle your baby too tightly before taking the temperature.
- Never leave your child alone while taking his or her temperature.
- Taking rectal temperatures: Coat the tip of the thermometer and the opening of the anus with petroleum jelly (Vaseline). Gently insert it ¼ to ½ inch into the rectum (inserting until the silver tip disappears is about ½ inch). Never try to force it past any resistance. (Reason: it could cause perforation of the bowel.) Hold the thermometer still for 2 minutes. Never let go of it.
- Taking oral temperatures: Be sure your child has not taken a cold or hot drink within the last 30 minutes. Place the end of the thermometer under the tongue and leave it there for 2-3 minutes. Don't let your child bite on the thermometer.
- Taking axillary temperatures: Place the tip of the thermometer in a dry armpit. Close the armpit by holding the elbow against the chest for 2-3 minutes. You may miss detecting a fever if the thermometer is removed before 3 minutes.
- After you're done, wash the thermometer in cool, soapy water.

What is the expected course of a fever?
Most fevers with viral illnesses range between 101°F and 104°F (38.3°C to 40°C) and last for 3 to 5 days. In general, the height of the fever does not relate to the seriousness of the illness. How sick your child acts is what counts. Fever causes no permanent harm until it reaches 107°F (41.7°C). Fortunately, the brain's thermostat keeps untreated fevers below this level. Although all children get fevers, only 4% develop a brief febrile convulsion. Since this type of seizure is generally harmless, it is not worth worrying excessively about. If your child has had high fevers without seizures, he/she is likely safe.

What should I do when my child has a fever?
Encourage your child to drink extra fluids, but do not force him/her to drink. Popsicles and iced drinks are helpful. Body fluids are lost during fevers because of sweating. Clothing should be kept to a minimum because most heat is lost through the skin. Do not bundle up your child; it will cause a higher fever. Keep the room temperature at about 65° to 70°F. Keep your child rested, quiet and comfortable. During the time your child feels cold or is shivering (“the chills”), give him/her a light blanket.

When should I take the medicine to lower my child's fever?
Fever is a sign that the body is fighting an infection. The main reason to treat your child is to make him/her feel better. When your child is achy and fussy, you may want to give him/her some medicine. Two kinds of over-the-counter medications are recommended for lowering fever in children: acetaminophen (Tylenol) and ibuprofen (Motrin, Advil). Both medicines are effective in lowering fever and work in about 30 to 60 minutes. Neither is recommended for children under 2 months of age, and only acetaminophen is recommended for children 2 to 6 months.

Other tips for taking your child's temperature:
- Avoid aspirin. In rare cases aspirin can cause Reye's syndrome in children who have chickenpox or influenza (cold, cough, sore throat symptoms). Reye's syndrome is a serious illness that can lead to death. Because it may be hard to tell if a child has one of these infections, most pediatricians have stopped using aspirin for fevers associated with any illness.

When should I call the doctor?
IMMEDIATELY if:
- Your child is less than 2 months old with a rectal temperature over 100°F (37.7°C). Because of his/her immature immune system, a young infant will not handle infections well and may not show any other signs of a serious illness other than the fever.
- The fever is over 105°F (40.6°C) in any age child.
- Your child looks or acts very sick. More concerning symptoms include a stiff neck, trouble breathing, crying inconsolably, or difficulty waking the child.

Within 24 hours if:
- Your child is 3 to 6 months old with fever over 102°F (38.9°C).
- The fever is between 103° and 105°F (39.4° to 40.6°C), especially if your child is less than 2 years old.
- Your child has had a fever more than 48 hours without an obvious cause or location of infection.
- Your child has had a fever more than 5 days.
- Your child has other symptoms such as sore throat, ear pain, abdominal pain, or pain when urinating.
- Your child is drinking less fluid than usual and has urinated less than 2-3 times in the past 24 hours.
- You have other concerns or questions.
What are some common misconceptions about fever?

Even in an age of medical sophistication, there still exist fear and misunderstanding about fever in children. "Fever phobia" makes it difficult for parents to know when to be worried and when to stay calm when the thermometer starts to climb. Unwarranted fears about harmful side effects from fever cause lost sleep and unnecessary stress for many parents. Let the following facts help you put fever into perspective.

**MYTH:** All fevers need to be treated with fever-reducing medicine.
**FACT:** Fever is not an illness, but a symptom, and almost never harms a child. The only reason to lower a child's temperature is to make the child more comfortable or avoid a febrile seizure (in the seizure prone child). Most fevers are good for children and help the body fight infection. An elevated body temperature increases metabolism and produces infection-fighting cells. Also, some antibiotics work better in the presence of a fever. It doesn't relate to the seriousness of the infection.

**MYTH:** Seizures have no higher incidence for developmental delays, learning disorders, or IQ.
**FACT:** Higher risk of bacterial infections with a very high fever.

**MYTH:** Febrile seizures are harmful.
**FALSE:** Studies have shown that most parents could tell if their child did not have a fever by touch, but could not tell how high body temperature was if their child did have a fever. Fever makes the child's face hot and a 101°F temperature might feel the same as a 103°F temperature.

**MYTH:** The higher the temperature, the more serious the illness.
**FACT:** The normal temperature changes throughout the day and peaks in the late afternoon and evening. A reading of 98.6°F (37°C) is just the average oral temperature. It normally can change from a low of 97.6°F (36.4°C) in the morning to a high of 100.3°F (37.9°C) in the late afternoon.

**MYTH:** Placing a hand on a child's forehead is an accurate way to read a fever.
**FACT:** Studies have shown that most parents could tell if their child did not have a fever by touch, but could not tell how high body temperature was if their child did have a fever. Fever makes the child's face hot and a 101°F temperature might feel the same as a 103°F temperature.

**MYTH:** Temperatures between 98.6°F and 100°F (37.0°C and 37.8°C) are low-grade fevers.
**FACT:** The normal temperature changes throughout the day and peaks in the late afternoon and evening. A reading of 98.6°F (37°C) is just the average oral temperature. It normally can change from a low of 97.6°F (36.4°C) in the morning to a high of 100.3°F (37.9°C) in the late afternoon.

**MYTH:** Fevers cause brain damage, and fevers over 104°F (40°C) are dangerous.
**FACT:** Fevers with infections don't cause brain damage. Only body temperatures over 108°F (42.2°C) can cause brain damage. The body temperature only goes this high with high environmental temperatures (e.g., confined in a closed car).

**MYTH:** Anyone can have a febrile seizure.
**FACT:** Only 4% of children ever have this type of seizure, which occurs more frequently if there is a family history of seizures with fever. Also of note, it is not the height of the fever that causes febrile convulsions but how quickly the temperature rises. They are unusual after the age of 3 years.

**MYTH:** Febrile seizures are harmful.
**FACT:** Febrile seizures are scary to watch, but they usually stop within 5 minutes. They cause no permanent harm. Children with febrile seizures have no higher incidence for developmental delays, learning disabilities, or seizures without fever.

**MYTH:** Without treatment, fevers will keep going higher.
**FACT:** Most fevers caused by infection top out at 105° or 106°F (40.6° or 41.1°C) or lower, because the brain's thermostat does not allow the body's temperature to exceed these levels.

**MYTH:** With treatment, fevers should come down to normal.
**FACT:** With treatment, fevers usually come down 2° or 3°F (1° - 1.5°C).

**MYTH:** If the fever doesn't come down (if you can't "break the fever"), the cause is serious.
**FACT:** Fevers that don't respond to fever medicine can be caused by viruses or bacteria. It doesn't relate to the seriousness of the infection.

**MYTH:** A child with a fever should not receive a routine immunization.
**FALSE:** Immunizations are only contraindicated when the illness causing the fever is severe. A mild illness (such as an ear infection) is not a reason to withhold a vaccine, even if the child has a fever.