



Fever from infection will not cause brain damage!



# Fear of Fever?



# What is fever?

A temperature of 100.4°F or higher (equal to 38° Celsius).

### How do you know if your child has fever?

There are many types of thermometers, and our recommendations depend on your child's age. Only a *digital rectal thermometer* is accurate in a newborn (avoid mercury). Older children will do well with *oral thermometers* placed *under* the tongue. *Ear and pacifier thermometers* may give a general measure of fever but are not very accurate. They may be useful for screening difficult toddlers. Forehead and armpit (axillary) thermometers are even less accurate. Many parents simply say their child "feels hot" but do not measure the fever.

#### When Should I Worry?

Pediatricians view fever as a sign that something is wrong, but are not worried that fever itself will harm a child. Parents worry that fever will cause brain damage, it won't! It is true that a child or animal locked in a car on a hot day could die of heat stroke (an emergency requiring immediate cooling/ice/fluids...), but a child with an infection will not develop heat stroke.

Once we know there is no serious cause of your child's fever ("flu", virus, ear infection, etc.), we focus on comforting your child but stop worrying about the fever itself.

**P**arents also worry about seizures from fever. These are "harmless" seizures which occur in about 2-5% of children between the ages of 6 months and 6 years. They usually occur on the first day of an illness as the fever shoots up. They do not cause brain damage, and are usually brief. They are *not preventable* with acetaminophen (*tylenol*, etc.) or ibuprofen (*advil*, *motrin*, etc.).

# Extra Worry for Infants Under Age 3 Months:

Any digital, rectal thermometer reading of 100.4° or higher should be followed by an immediate call to our office (day or night). Infants under 8 weeks of age will need emergency admission to the hospital to rule out serious infection.

#### Worry About Fever and Rash:

If you notice a new rash when your child has fever, call promptly to discuss. There are many harmeless causes of rashes with fever but your child should be evaluated to rule out serious infection.

# Worry About the Height and Duration of Fever:

Children with extremely high fever (105° and higher) should be evaluated to determine the cause. Children with prolonged fever (longer than 5-7 days) should be re-evaluated in our office to look for complications.

(© Dr. D.Puder)

# Is There Anything Good About Fever?

Fever helps the body fight infection. The immune system may function better with fever, and germs don't grow as well.

#### How To Comfort Your Child With Fever:

- ☐ Don't overdress, a child with 104° does not need four layers of clothing!
- A slightly warm sponge bath may help, but cold water will make your child shiver and may make things worse.
- ☐ Don't use alcohol (rubbing or otherwise) to bring down fever. It could absorb through the skin and be toxic.
- ☐ Don't use aspirin (salicylates, pepto-bismal) which can cause Reye's syndrome, a devastating brain disease.



Be guided by your child's comfort...

## We Recommend:

 ${f B}$  e guided by your child's comfort, not the fever itself. If your child is sleeping comfortably, don't wake them up for fever medication! Fluids are important to prevent dehydration, but "overhydrating" doesn't help.

**Acetaminophen:** (tylenol, panadol, feverall suppositories, etc.)

It is generally available in 80mg per dropper (infants) or 160mg per teaspoon (children's) strengths. Our formula is:

**160mg for every 25lbs** your child weighs.

It can be given every **four** hours as needed.

**Ibuprofen:** (Motrin, Advil, etc.)

It is generally available in 50mg per 1.25cc dropper (infants) or 100mg per teaspoon (children's) strengths. Our formula is:

**100mg for every 25lbs** your child weighs. It can be given every **six** hours as needed.

It is acceptable to start with *either* of these medications, and they can be mixed if your child is still uncomfortable after giving one of them.

Does Teething Cause Fever?

**S**tudy after study reassures us that teething does not cause fever. Infants and children are teething for months and will often get a coincidental infection.

#### How many infections with fever are too many?

The average healthy child in this country has six or more infections with fever per year in the first few years, most of which will be harmless viruses. Children in daycare will have even more infections. This is not a sign of a weak immune system. Severe or unusual infections should be discussed with your doctor.



by Doug Puder, MD and Gregg Rockower, MD