

# FEVER

Invasion of the human body by bacteria, viruses, fungi and allergens all can result in the production of fever. Studies have shown that elevation of temperature gives the host a clear survival advantage over invading organisms and the inability to produce fever carries a poorer prognosis. The lower animals increase their body temperature by migrating to a warmer location. Birds and mammals use internal regulation.

During the initial phase of an illness the blood vessels of the skin, particularly the extremities, constrict to conserve heat. This gives the feeling of being chilled. In addition, the muscles start to shiver which increases the metabolic rate and, therefore, the body temperature. The body feels listless and the desire to work or play decreases. Dizziness and headache reinforce the desire

for inactivity. Actually, once a satisfactory level of fever has been attained, the aches and chills tend to decrease and a sense of relief occurs. These changes help heal the body.

## Moderate fever is beneficial!

The fever should be allowed to work to help heal. The goal of therapy should be to allow the body to weather the metabolic crisis. If, indeed, fever comes as a friend, what should cause us to worry and, therefore, attempt to control it? The usual fevers (up to 104 degrees) that children get are not harmful in themselves and usually last from one to three days. In general, the height of fever is not related to the seriousness of the illness. What counts is how your child acts. Irritability, lethargy, vomiting, headache, stiff neck, earache, sore throat, bruising, pain, difficulty in breathing or convulsions

should prompt you to call your doctor. A temperature greater than 101 in an infant less than two months of age or a temperature greater than 105 in any child should be evaluated immediately. Any fever over 102 that lasts longer than 72 hours or returns after being gone for 24 hours should also be seen.

The majority of pediatricians do not try to reduce temperatures unless they are over 101. In addition, one rationale for treating temperatures higher than 101 is to reduce evaporation of water and to reduce the risk of fever convulsions (seizures). However, simple fever seizures have never been shown to be harmful and can be treated by immediately reducing the elevated body temperature. You should consult your pediatrician. An elevated temperature does increase the fluid needs and

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increasing intake of cool liquids should be a major goal of therapy. Whether given orally or intravenously, fluids replace losses and serve to keep the body's machinery working. It is important to keep coverings to a minimum as these would tend to drive the core temperature higher. Also, discourage vigorous activity. The patient should be kept comfortable, in bed and isolated.

The elevation in temperature tells us that the child is ill;

The fever is not the illness.

Temperature is the measurement of the warmth of the body. Fever occurs when that temperature is over 100 degrees fahrenheit or 38 degrees centigrade. Children over two months of age may be given medicine to reduce the fever. Aspirin works the best but may not be used if the child has the chickenpox or during influenza season because of a rare association with Reye's syndrome, a severe illness resembling encephalitis. Ibuprofen (Advil, Motrin) works well also and may be given at a dose of 10 mgs/kg every 6-8 hours. Tylenol is given at a dose of 15 mgs/kg every 4 hours. Do not give them together. Only on rare occasions should you alternate them. A fever greater than 103 may be reduced by sponging with hot water. The water should be warm enough to pink the skin, opening up the skin blood vessels to allow for increased radiation of heat. Cold water may be used on small areas (forehead, groin, armpits).

## Temperature Conversion:

$$38.0 \text{ C} = 100.4 \text{ F}$$

$$39.0 \text{ C} = 102.2 \text{ F}$$

$$40.0 \text{ C} = 104.0 \text{ F}$$

Remember, all infections are contagious!

*A child may not return to school until fever free for at least 24 hours*

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