

Caring for Your Child's Fever

What is a child's normal body temperature?

A child has the same body temperature range as an adult:

- 36.5°C – 37.5°C (97.7°F - 99.5°F) when taken by mouth.
- 36°C – 37.3°C (96.8°F - 99°F) when taken under an armpit.
- 36.6°C - 37.9°C (97.9°F – 100.2°F) when taken rectally.

What is a fever and how does it happen?

- A fever is the body's natural way to fight infections.
- A fever happens when the body temperature is higher than normal.
- Causes of fevers may include:
 - Viral infections such as influenza and parvovirus ('fifth disease').
 - Bacterial infections such as urinary tract infections and pneumonia.
 - Immunizations. Fevers may occur 1 to 14 days after immunization, depending on the types of vaccines that were received.

How can I tell if my child has a fever?

- Accurate temperature taking is important to check if your child has a fever. Electronic digital thermometers are recommended for use in children.

By armpit:

- Place the thermometer high up in the centre of the armpit making sure it touches bare skin on all sides.
- Hold the child's arm close to his/her body.
- When the thermometer beeps, remove it and read the temperature.

By mouth (can be used for older children):

- Wait 20 minutes after your child has a hot or cold drink or food before taking their temperature by mouth.
- Place the thermometer probe under their tongue.
- Tell the child to hold the thermometer with their lips. Remind them not to bite down on the thermometer.
- When the thermometer beeps, remove it and read the temperature.

Rectally (this method is not recommended as there is a chance of injury):

- Apply a lubricant or petroleum jelly (like Vaseline®) on the thermometer probe so that you can easily insert it.

- Lay the child down on their stomach or side, and spread their buttocks with one hand and gently insert the thermometer probe into the rectum about 1.25 cm (0.5 in.) to 2.5 cm (1 in.). Don't force it into the rectum.
- Hold the thermometer in place with your fingers and press the child's buttocks together to keep the thermometer in place.
- When the thermometer beeps, remove it and read the temperature.
- Wash the thermometer well after rectal use. To prevent spreading bacteria, don't use it to take oral temperatures.

Notes:

- Ear (tympanic) thermometers are quick but the result may not be accurate.
- Forehead strips, pacifier (soother) and disposable thermometers are not accurate and should not be used.
- Glass thermometers can cause mercury poisoning if they break.

How can I treat my child's fever?

Comfort measures include:

- Encourage your infant to breastfeed or formula feed as often as possible to prevent dehydration (infants do not need to be given additional water or other fluids).
- Encourage your child to drink water or diluted juice or eat popsicles, gelatin and ice chips, and watch for signs of dehydration (e.g., their pee is dark colored or they are thirstier than usual).
- Dressing your child lightly and covering with a sheet.
- Bathing your child in lukewarm (never cold) water for less than 15 minutes (stop the bath if your child starts shivering).

Medication to manage fevers:

- Don't give fever medications before **or** at the time of immunization because it can decrease the body's immune response to vaccines.
- Only treat their fever (at least 6 to 8 hours after immunization) **if** your child is uncomfortable, refusing fluids and not sleeping.
- **If your child is otherwise healthy and acting normal, it is not necessary to treat their fever.**
- **Acetaminophen** (Tylenol®, Tempra®) can treat children's fevers and pain. **Read the next page for dosages and more information.**

Dosages for Various Forms of Acetaminophen for Children

Weight (kg)	Weight (lbs.)	Dosage for weight (mg)	Infant drops 80 mg per 1 mL	Children's syrup 160 mg per 5 mL	Children's meltable or chewable tablets 80 mg	Junior meltable or chewable tablets 160 mg	Suppository 120 mg	Suppository 325 mg
2.5-5.4	6-11	40 mg	0.5 mL	-	-	-	-	-
5.5-7.9	12-17	80 mg	1 mL	-	-	-	2/3 suppository	-
8-10.9	18-23	120 mg	1.5 mL	-	1.5 tablets	-	1 suppository	-
11-15.9	24-35	160 mg	2 mL	5 mL	2 tablets	1 tablet	1 1/3 suppositories	-
16-21.9	36-47	240 mg	-	7.5 mL	3 tablets	1.5 tablets	2 suppositories	-
22-26.9	48 - 59	320 mg	-	10 mL	4 tablets	2 tablets	-	1 suppository

- Carefully read and follow all labels on the medicine bottle and package.
- **Always check your child's weight** so that they receive the right dosage of medication.
- Doses may be repeated every 4-6 hours until the fever drops. **Do not give your child more than 5 doses in a 24 hour period.**
- **Acetaminophen may be present in other over-the-counter medications.** Overdoses of acetaminophen have been known to cause permanent liver damage and/or death in children and adults.
- Do not give ibuprofen (Advil®, Motrin®) to infants younger than 6 months old.
- **Do not alternate giving acetaminophen and ibuprofen** as this does not control a fever or pain any better than just giving acetaminophen and may cause accidental drug overdoses.
- **ASA (Aspirin®) should NOT be given to children due to the risk of Reye's syndrome.**

For more information, contact HealthLine at 811 (24 hours a day), your local public health office, or your physician or nurse practitioner.

Resources: <http://healthlineonline.ca/>; Canadian Pediatric Society www.cps.ca; The Hospital for Sick Children (2010) www.sickkids.ca; www.tylenol.ca (2014); <http://www.metric-conversions.org/temperature/celsius-to-fahrenheit.htm>

When should I be concerned about my child?

Call HealthLine at 811 or take your child to a doctor, nurse practitioner or emergency room if they have had a fever for more than 2-3 days.

- A fever of 38°C (100.4°F) or higher in a child younger than 2 months of age even if the fever responds to acetaminophen.
- Any fever in a child regardless of age who has any of the following symptoms, even if the fever responds to acetaminophen:
 - Develops small purple spots on his/her skin that may look like bruises or a rash.
 - Has a seizure or convulsion ('a fit' or shaking) whether or not they have a fever.
 - Struggles with you, seems confused or delirious, is unresponsive or you have difficulty waking your child.
 - Has problems breathing.
 - His/her skin colour does not look right or becomes grey, pale or blue.
 - Refuses to stand or put weight on his/her legs.
 - Cries constantly and you cannot settle him/her.
 - Does not use an arm or leg normally.
 - Has repeated vomiting and/or diarrhea even if they don't look like they are dehydrated.
 - Cries when going to the bathroom, or if his/her pee smells bad.