

## Education

### **First Aid Measures for Emergencies**

The following recommendations will help you care for your child's minor emergencies and provide first aid for your child's major emergencies while you are waiting for medical assistance. Also, take a first aid course. You can't learn CPR (cardiopulmonary resuscitation) just by reading.

1. **Animal bites** Immediately wash the bite with lots of soap and water for 10 minutes. Many dog bites can be prevented by teaching a child not to pet strange dogs, not to tease dogs, and not to go near his own dog when the dog is eating or fighting. Also, teach your child not to pick up sick or injured wild animals.
2. **Bee stings** (Note: Yellow jackets and wasps don't leave stingers.) Carefully remove the stinger by scraping it off without squeezing it. Use the edge of a knife blade or credit card. Then put a few drops of water on the area of the sting, sprinkle on meat tenderizer, and massage the solution into the skin for 10 minutes. Don't use meat tenderizer near the eye. Putting an ice cube on the area will also relieve pain. Call your child's health care provider if your child develops hives or has trouble breathing.
3. **Tick bites** The simplest and quickest way to remove a tick is to pull it off. Use tweezers to grasp the tick as close to the skin as possible. Pull steadily upward until the tick releases its grip. Do not twist the tick or squeeze the tweezers so much that you crush the tick. If you don't have tweezers, pull the tick off in the same way by using your fingers. If you remove the body but leave the head in the skin, remove the head by using a sterile needle (in the same way you would remove a splinter). Wash the wound and your hands with soap and water after you remove the tick. Put on antibiotic ointment once. Embedded ticks do not back out when covered with petroleum jelly, fingernail polish, or rubbing alcohol. Applying a hot match to the tick also does not work. If you aren't successful in completely removing the tick, call your child's provider. Most ticks do not cause disease. However, if your child develops fever, rash, or other symptoms during the 2 weeks after the bite, call your child's health care provider.
4. **Bleeding, severe** Determine whether an artery or a vein has been cut. When an artery is cut, the blood pumps or spurts from the wound with each heartbeat. When a major vein is cut, the blood runs out of the wound at a steady rate. If an artery is cut, place several sterile dressings or a clean cloth (towels, sheets, or shirts) over the wound and apply direct pressure over the wound immediately. For arterial bleeding, the pressure must be forceful and continuous, often applied with the palm of the hand. Act quickly because the ongoing blood loss can cause shock. If a vein is cut, place several sterile dressings or the first clean cloth at hand (towels, sheets, or shirts) over the wound and apply direct pressure over the wound. After about 10 minutes of pressure, the dressings can often be bandaged in place until the child arrives at an emergency room.
5. **Breathing, stopped** Call the rescue squad (911) and begin mouth-to-mouth resuscitation.
6. **Burns** Immediately (within 10 seconds of the burn) immerse the burn in cold tap water for at least 5 minutes. If this is impossible (for example, if the burn is on the face and trunk), apply cool wet cloths or pour a pan of cold tap water over the burn. This will lessen the depth of the burn and relieve pain. Do not put butter or burn ointment on the burn. Do not break blisters. After you have cooled the burn, call your child's provider for further instructions.
7. **Choking** Most children occasionally choke on liquids that go down the windpipe instead of the esophagus. Your child's cough reflex will clear the windpipe of the liquid within 10 to 30 seconds. It is best if you do nothing except reassure your child. Sometimes a young child will suddenly choke on a peanut, raw carrot, or other piece of food. If your child is coughing and able to breathe, encourage him to cough the material up by himself. If your child can't breathe, cough, or make a sound, proceed with high abdominal thrusts, called the Heimlich maneuver. Grasp your child from behind, just below the lower ribs but above the navel, in bear-hug fashion. Give a sudden, upward jerk at a 45-degree angle to try to squeeze all the air out of his chest and pop the lodged object out of his windpipe. Repeat this upward abdominal thrust 10 times in rapid succession. If your child is too heavy for you to suspend from your arms, lay him on his back on the floor. Put your hands on both sides of his abdomen, just below the ribs, and apply sudden strong bursts of upward pressure. If your child is less than 1 year old, first use back blows. Place him face down at a 60-degree angle over your knees. (Gravity may help get the object out.) Deliver 5 hard blows with the heel of your hand to the area between your child's shoulder blades. If this is not successful, lay him on his back and give 5 rapid chest compressions over the lower sternum (breast bone) using two fingers. If he still hasn't started breathing, begin mouth-to-mouth resuscitation and call the rescue squad (911).
8. **Convulsions with fever** Bringing your child's fever down as quickly as possible will shorten the seizure. Remove most of your child's clothing and apply cold washcloths to her forehead and neck. Sponge her body with cool water. (Do not use rubbing alcohol.) As the water evaporates, your child's temperature will fall. When the seizure is over and your child is awake, give her an appropriate dose of acetaminophen or ibuprofen and encourage her to drink cool

fluids. If your child starts to vomit, place her on her side or abdomen. If her breathing becomes noisy, pull her jaw and chin forward by placing a finger behind the corner of her jaw on each side. Don't put anything into her mouth. Have someone call your child's health care provider.

9. **Drowning** Begin mouth-to-mouth breathing as soon as possible, in a boat, a life preserver, or at the latest, when the rescuer reaches shallow water. Continue rescue breathing until the child reaches a medical facility. Some children have survived long submersions, especially in cold water. If there is any possibility of a neck injury (for example, a diving accident), protect the neck from any bending or twisting.
10. **Eye, chemical in** Most chemicals such as alcohol or hydrocarbons (for example, gasoline or lighter fluid) cause only temporary stinging and superficial irritation. However, acids and alkalis splashed into the eye can severely damage the cornea. When any chemical is accidentally splashed into your child's eye, treat it as an emergency until your provider or a Poison Control Center expert tells you otherwise. Immediate and thorough irrigation of the eye with tap water is essential to prevent damage to the cornea. (Do not use antidotes such as vinegar.) Hold your child's face up under gently running tap water. Or have your child lie down while you continuously pour lukewarm water from a pitcher or glass into his eye. It is very important to try to hold your child's eyelids open during this process. For most chemicals, you should irrigate the eye for 5 minutes; for acids, 10 minutes; and for alkalis, 20 minutes.
11. **Eye, foreign body in** If the particle is in the corner of your child's eye, try to remove it with the corner of a clean cloth or a moistened cotton swab. If the particle is under your child's eyelid, try to remove it by opening and closing her eye several times while her eye is submerged in a cup of water. If the object stays on the lid and you can see it, try to remove it with a moistened cotton swab. If you can't see the particle or remove it, call your child's provider.
12. **Fracture, suspected** If you think your child has broken a bone, take him in for a medical exam and an x-ray. Don't let your child put weight or pressure on the bone. Put a splint on the suspected fracture before you move your child so the edges of the fracture won't damage blood vessels.
  - Shoulder or arm: Use a sling made of a triangular piece of cloth to support the forearm at an 80° to 90° angle to the upper arm. If you can't make a sling, at least support the injured part with the other hand.
  - Leg: After placing a towel between the legs for padding, use the uninjured leg as a splint by binding the thighs and legs together with straps. If you can't do this, at least carry your child and don't permit him to put any weight on the injured leg.
  - Neck: Protect the neck from any turning or bending. Do not move your child until a neck brace or spine board has been applied. Call a rescue squad (911) for transportation.
13. **Sprained ankle or knee** Remember the acronym RICE for treatment of most sports injuries: rest, ice, compression, and elevation. Apply continuous compression by wrapping an elastic bandage around the ankle or knee. Numbness, tingling, or increased pain means the bandage is too tight. Keep the bandage on for 24 to 48 hours. Put a plastic bag of crushed ice on the ankle or knee. Do this 20 minutes of every hour while your child is awake for the first 4 hours after the injury. Ice and compression reduce bleeding, swelling, and pain. Keep the injured ankle or knee elevated and at rest for 24 hours. Call your child's provider for further instructions.
14. **Poisoning** If your child has swallowed something poisonous, first sweep any pills or solid poisons out of your child's mouth with your finger. Then, if your child swallowed a chemical, immediately give her one glass of water or milk to rinse her esophagus; this is not necessary if your child swallowed a medicine. Call the National Poison Center Hotline at 1-800-222-1222 for advice. Do not induce vomiting.
15. **Nosebleed** Pinch the soft parts of the nose against the center wall for 10 minutes. Tell your child to breathe through his mouth during this time. If blood continues to come out of the nose while it is pinched, you may not be pressing on the right spot. If the nosebleed hasn't stopped after 10 minutes, insert a piece of gauze covered with vasoconstrictor nose drops (for example, Neo-Synephrine) or petroleum jelly into the nostril. Squeeze again for 10 minutes. If bleeding persists, call your child's health care provider but continue applying pressure in the meantime.
16. **Skin injuries** Call your child's provider immediately if you have any difficulty stopping the bleeding, if the wound is caused by a dirty object, if there is any chance that a foreign body is in the wound, or if the skin is split and will need stitches. Any deep cut that needs stitches must be sutured within 12 hours. After 12 hours the wound is no longer clean enough to close with stitches.
  - Abrasions or superficial cuts Wash abrasions or superficial cuts for 5 minutes with soap and water; then rinse well. Put on an antibiotic ointment and Band-Aid or sterile gauze dressing and change it daily.
  - Puncture wounds (as from stepping on a nail) Soak the area in hot water and soap for 15 minutes. Try to make the puncture wound bleed some more. If there is any chance that an object has broken off inside the puncture wound or if your child has not had a tetanus booster in the last 5 years, call your child's health care provider.
  - Bruises Put ice on the bruise for 20 minutes. No other treatment should be necessary.
  - Slivers and splinters Most slivers can be removed with a needle and tweezers. Before you use them, sterilize the

needle and tweezers with alcohol. Wash the skin surrounding the sliver with soap before you try to remove the sliver. Grasp the sliver firmly with tweezers and pull it out at the same angle it went in. Call your child's health care provider if you can't remove a sliver.

## 17. **Head injuries**

- Observation and rest Observe your child for the first 2 hours after the injury. Encourage your child to lie down and rest until he no longer has symptoms. It is all right for your child to sleep; trying to keep him awake continuously is unnecessary. Have your child sleep near you so you can periodically check on him.
- Diet Give your child only clear fluids (ones you can see through) and no food until he has gone 6 hours without vomiting. Vomiting is common after head injuries.
- Avoid pain medicines Don't give your child acetaminophen or ibuprofen because your provider needs to know your child's reaction to the injury. If your child's head hurts badly enough to need a pain reliever, your provider should check him.
- Special precautions and awakening Although your child is probably fine, watching him for 48 hours will ensure that you don't miss any serious complication. After 48 hours, however, your child should return to a normal routine and full activity.
  - Awaken your child twice during the night: once at your bedtime and once 4 hours later. (Awakening him every hour is unnecessary and next to impossible.) Arouse him until he is walking and talking normally. Do this for 2 nights. If his breathing becomes abnormal or his sleep is otherwise unusual, awaken him to be sure a coma is not developing. If you can't awaken your child, call 911 immediately.
  - Checking pupils is unnecessary. Some health care providers may ask you to check your child's pupils (the black centers of the eyes) to make sure they are equal in size and become smaller when you shine a flashlight on them. Unequal pupils are never seen before other symptoms like confusion and unsteady walking. In general, pupil checks are necessary only for a hospitalized child with a severe head injury.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by B.D. Schmitt, M.D., author of "Your Child's Health," Bantam Books. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

# Lead Poisoning, Prevention of

## What is lead poisoning?

Lead poisoning is a common preventable disease in the U.S. and Canada. Most commonly, lead poisoning is caused by being repeatedly exposed to small amounts of lead. Once lead is in the body it does not leave on its own. If enough lead builds up in the body it causes lead poisoning.

## What are the symptoms of lead poisoning

There may not be any obvious symptoms at first, so parents of children with mild lead poisoning may not know to get medical help. Low levels of lead are harmful. The brain is most sensitive to lead exposure during the first 6 years of life. Exposure to lead may cause such problems as lowered IQ scores (an average of 7 IQ points lost), decreased attention span, decreased hearing, speech delays, and other developmental delays.

Though uncommon, exposure to large amounts of lead causes severe lead poisoning and major symptoms. The symptoms of severe lead poisoning include abdominal pains, headaches, vomiting, confusion, muscle weakness, seizures, hair loss, and anemia.

## Where might my child be exposed to lead?

The most common source of lead exposure for children is lead-based paint. Lead was finally banned from house paint in 1978. Three-quarters of all houses built before 1960 contain lead-based paint. When paint chips or peels, young children can pick up these chips and chew them. More commonly, children swallow dust and soil contaminated with lead paint. Home remodeling and sanding put a great deal of lead powder into dust and soil. Because toddlers commonly put their hands in their mouths, suck their thumbs, and explore their environment by tasting things, they are at greater risk for lead poisoning.

Other sources of lead are air, water, and food. The amount of lead in the air from car exhaust has been markedly reduced now that unleaded gasoline is commonly used. Lead is found in low levels in some drinking water because lead-based solder on old water pipes may add lead to water. (Lead-based solder was not banned for use with water pipes until 1986.) Lead is also sometimes found in fruit juice, food stored in lead-glazed pottery, low-quality toys, metal trinkets, and crayons. Average lead levels in children in the U.S. have been declining in recent years, however all sources of lead have still not been eliminated.

## How do I prevent lead poisoning?

- Make sure your child is not exposed to peeling paint. Pay special attention to windowsills.
- To remove lead dust:
  - Rinse your child's hands and face before she eats.
  - Rinse toys and pacifiers frequently.
  - If your child sucks his thumb or fingers, rinse his hands frequently.
  - Wet-mop your hard surface floors.
- Close off rooms that are being remodeled.
- If you have leaded paint on the outside of your house, keep lead dust from being tracked into your house. Have a washable mat at each door entry so everyone who enters wipes their feet. If the soil around your house is definitely contaminated with lead, have a rule that people take off their shoes before coming into your house.
- If the soil around your home is contaminated with lead, replace it or plant bushes next to the walls so that children cannot play there.
- If you need water for cooking or for preparing formula, use only water from the cold water tap. If the water hasn't been used for several hours, let the water run for 2 minutes before you use it. (Lead dissolves more in warm water or standing water.) If you are concerned, have your water tested for lead.
- Do not store food or drink in pottery that may not have been fired correctly.
- Make sure your child's diet contains enough iron and calcium. Both of these minerals make it harder for the body to absorb lead.
- Make sure that all adults who work with lead shower and change clothes before spending time with your child.

- Make sure your child's toys and crayons are made by a reputable manufacturer.

### **How can I check if my child has lead poisoning?**

Lead poisoning is diagnosed by a blood test. In most states only children who are at high risk for lead poisoning are tested. For high risk children this test is done when children are 12 months old and repeated when they are 2 years old. You should have your child tested if:

- Your child lives in or regularly visits a house or structure with peeling or chipped paint that was built before 1950, including day care centers, preschools, or homes of baby sitters and relatives.
- Your child lives in or regularly visits a home that is being renovated and was built before 1978.
- Your child has a brother, sister, housemate, or playmate who is being tested or treated for lead poisoning.
- Your child lives with an adult whose job or hobby involves exposure to lead. Examples of such jobs or hobbies include furniture refinishing, making stained glass, making pottery, using indoor firing ranges, and working in industries such as storage batteries, automotive repair, and bridge, tunnel, and elevated highway construction.
- Your child lives near an active smelter, battery recycling plant, mine tailing pile, or other industry likely to release lead.
- Your child receives medical treatment for removal of a foreign body from the ear, nose, or stomach.
- Your child has the habit of swallowing nonfood substances (pica).
- Your child is less than 6 years old and has an unexplained developmental delay, hearing defect, irritability, severe attention deficit, violent tantrums, or unexplained anemia.
- Your child lives in a neighborhood at high risk for lead poisoning (often identified by zip code).

Children who remain at high risk for lead exposure should be tested for lead at least every year until their 6th birthday. The levels of lead when a child is 12 months old and 24 months old are especially important.

### **How is it treated?**

Children with high levels of lead in their blood or symptoms of lead poisoning need to start taking a medicine (called a chelating agent) that binds with the lead and carries it out of the body. All children need to be protected from re-exposure to the lead until it is removed. A public health agency or housing agency should carefully inspect the child's home for lead hazards. Your family should take all of the precautions for preventing lead exposure.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by B.D. Schmitt, M.D., and Robert Brayden, M.D. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## Passive Smoking

### What is passive smoking?

Nonsmoking children who live in homes with smokers are exposed to cigarette smoke. This situation is called "passive smoking."

The smoke comes from two sources: secondhand smoke and sidestream smoke. Secondhand smoke is the smoke exhaled by the smoker. Sidestream smoke is the smoke that rises off the end of a burning cigarette. Most of the smoke in a room is sidestream smoke. Sidestream smoke contains 2 or 3 times more harmful chemicals than secondhand smoke because it does not pass through the cigarette filter. At its worst, a child in a very smoky room for one hour with several smokers inhales as many bad chemicals as he would by actually smoking 10 or more cigarettes.

In general, children of smoking mothers absorb more smoke into their bodies than children of smoking fathers because they spend more time with their mothers. Children who are breast-fed by a smoking mother are at the greatest risk because chemicals from the smoke are in the breast milk as well as the surrounding air.

### How does passive smoke harm my child?

Children who live in a house where someone smokes have more respiratory infections. Their symptoms are also more severe and last longer than those of children who live in a smoke-free home.

The impact of passive smoke is worse during the first 5 years of life, when children spend most of their time with their parents. The more smokers there are in a household and the more they smoke, the more severe a child's symptoms are.

Passive smoking is especially hazardous to children who have asthma. Exposure to smoke causes more severe asthma attacks, more emergency room visits, and more admissions to the hospital. These children are also less likely to outgrow their asthma.

The following conditions are worsened by passive smoking:

- pneumonia
- coughs or bronchitis
- croup or laryngitis
- wheezing or bronchiolitis
- asthma attacks
- flu (influenza)
- ear infections
- middle ear fluid and blockage
- colds or upper respiratory infections
- sinus infections
- sore throats
- eye irritation
- crib deaths (SIDS)
- school absenteeism caused by illness.

### How can I protect my child from passive smoking?

- **Give up smoking.** You can stop smoking if you get help. Sign up for a stop-smoking class or program. If you need some self-help reading materials, call your local American Lung Association or American Cancer Society office. If you want your child not to smoke, set a good example by not smoking yourself. It is even more important to give up smoking if you are pregnant. The unborn baby of a smoking mother has twice the risk for prematurity and newborn complications. You must also avoid smoking if you are breast-feeding because harmful chemicals from the smoke get into the breast milk. For more information call the National Cancer Institute on their toll-free line: 1-800-4-CANCER.

- **Never smoke inside your home.** Some parents find it very difficult to give up smoking, but all parents can change their smoking habits. Smoke only when you are away from home. If you have to smoke when you are home, smoke only in your garage or on the porch. If you have to smoke inside your house, decide which room in your home will be a smoking room. Keep the door to this room closed and open a window sometimes to let fresh air into the room. Wear an overshirt in this room so your underlying clothing does not collect the smoke. Never allow your child inside this room. Don't smoke in any other parts of the house. Visitors must also smoke only in this one room.
- **Never smoke when you are close to your child.** If you cannot limit your smoking to one room, at least don't smoke when you are holding your child. Never smoke in a car when your child is a passenger. Never smoke when you are feeding or bathing your child. Never smoke in your child's bedroom. These precautions will reduce your child's exposure to smoke and protect him from cigarette burns. Even doing just this much will help your child to some degree.
- **Avoid leaving your child with someone who smokes.** Ask about smoking when you are looking for day care centers or baby sitters. If your child has asthma, this safeguard is crucial.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by B.D. Schmitt, M.D., author of "Your Child's Health," Bantam Books. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## Poisoning

### When should I call the Poison Center or my health care provider?

Call **IMMEDIATELY** any time you think your child has swallowed a poison.

Be prepared to answer the following questions:

- What was swallowed?
- How much was swallowed?
- When was it swallowed?
- Does your child have any symptoms?

### What if acids, alkalis, or petroleum products are swallowed?

Acidic and alkaline substances and petroleum products include toilet bowl cleaners, oven cleaners, drain cleaners, lye, automatic dishwasher detergent, and Clinitest tablets. They also include ammonia, bleaches, kerosene, gasoline, benzene, furniture polish, and lighter fluid. If your child vomits after swallowing these, more damage to the esophagus or lungs can occur.

- **First Aid** Do not try to make your child throw up. Give your child 2 or 3 ounces of water (or milk) to drink to wash out the esophagus. Do not give your child too much fluid or it could cause your child to vomit. Keep your child sitting or standing to protect the esophagus. Do not let him lie down. Go to the nearest emergency room. Bring the container the poison was in with you.

### What if drugs, chemicals, or plants are swallowed?

Most prescription medicines are a problem if taken as an overdose. Chemicals and many plants are also poisonous. The most dangerous drugs (in overdoses) are barbiturates, clonidine, digitalis products, narcotics, Lomotil, Darvon, Tofranil, and other tricyclic antidepressants. Some dangerous nonprescription medicines are iron and aspirin.

- **First Aid** The National Poison Center hotline number is 1-800-222-1222. This number will automatically connect you with your local poison center. Do not make your child throw up. Syrup of ipecac is no longer used for poisonings. If you have any ipecac in your home, get rid of it by flushing it down the toilet.

### What are some harmless substances?

Fortunately, many children will swallow nonedible substances that do not cause any serious problems. In these cases it is not necessary to try to get your child to throw up.

Some examples of nontoxic substances are:

- candles
- chalk, crayons, ballpoint pens, felt tip pens, or pencils (the "lead" is actually graphite)
- hair sprays, hand lotions, or perfumes
- dog/cat food or cat litter
- deodorants, detergents, toothpaste, or hand soaps
- dirt
- greases and oils
- silica granules



- petroleum jelly, shampoos, shaving cream, or suntan lotions.

Call your health care provider to make sure that what your child swallowed is harmless.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by B.D. Schmitt, M.D., author of "Your Child's Health," Bantam Books. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## Poisoning: Prevention

- Remember to keep drugs and chemicals locked up or out of reach of children. Think about where you keep drain cleaners, furniture polish, drugs, and insecticides. These are the most common dangerous poisons.
- Keep alcoholic beverages also out of a child's reach. Alcoholic beverages have caused serious poisonings. As little as 3 ounces of hard liquor can kill a 2-year-old child. Remember that most mouthwashes contain 15% to 25%.
- Whenever you or your child is prescribed a new drug, remember to keep the safety cap on and make sure that you are giving the right dose.
- Don't leave drugs on countertops, especially when you are called away to the door or telephone.
- Don't leave drugs in a purse because children often search them for candy or gum. When you have guests, keep purses out of reach of children.
- Always read the label before giving any medicine. Be sure it's the right drug and that you are giving the correct dosage. Don't give medicines in the dark.
- Know the names of all your houseplants and remove any (for example, Dieffenbachia) that could cause sickness other than vomiting or diarrhea. Teach your child never to put leaves, stems, seeds, or berries from any plant into her mouth without your permission.
- Don't store any chemicals in soft drink bottles. Don't put gasoline into any type of food or beverage container.
- Keep the telephone number of the Poison Control Center handy.
- Remember that kids often get into poisons simply to satisfy their curiosity. Telling a young child not to put something in their mouth is not enough to prevent poisoning. To prevent poisonings, parents have to consistently supervise where young children are and what they are doing.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by B.D. Schmitt, M.D., author of "Your Child's Health," Bantam Books. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## **Preparation for Calling a Physician**

Before calling your physician, have a pencil and paper ready and the following information (except in emergencies):

- Your child's main symptoms Note: If your child has a chronic disease, be sure to mention it.
- Your child's temperature (if he or she is sick)
- Your child's approximate weight (needed for calculating drug dosages)
- The names and dosages of any medication your child is taking
- Your pharmacy's telephone number
- Your questions written down

Have your child nearby in case something needs to be checked.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by B.D. Schmitt, M.D., author of "Your Child's Health," Bantam Books. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

# Tooth Decay Prevention

## What is tooth decay?

Tooth decay is when the enamel of a tooth is destroyed. It may cause toothaches, lost teeth, malocclusion (poor bite), and costly visits to the dentist. Fortunately, modern dentistry can prevent 80% to 90% of tooth decay.

## How can I help my child prevent tooth decay?

Here are some tips for raising cavity-free kids.

### Fluoride

Fluoride builds strong, decay-resistant enamel and reduces cavities by 70%. Children 6 months to 16 years old need fluoride. By 16 years, the enamel formation on the 3rd molars is completed. Drinking fluoridated water (containing 0.7 to 1.2 parts fluoride per million) or taking a prescription fluoride supplement is the best protection against tooth decay.

To get enough fluoride from drinking water, a child must drink at least 1 pint of fluoridated water each day. By school age a child should drink 1 quart of fluoridated water per day. Fluoride is safe. Over half of all Americans drink fluoridated water. Fluoride has been added to water supplies for over 50 years.

If fluoride isn't added to your city's water supply or you are breast-feeding, ask your health care provider for a prescription for fluoride drops or tablets during your next routine visit. The dosage of fluoride is:

- 0.25 mg per day for children up to 3 years old
- 0.5 mg per day for children 3 to 6 years old
- 1.0 mg for children over age 6.

Mixing fluoride with milk reduces absorption of the fluoride to 70%. For this reason you should give fluoride to your child when he or she has an empty stomach.

Bottled water usually doesn't contain enough fluoride. Call the bottled water producer for information. If your child drinks bottled water containing 0.6 or less parts fluoride per million, ask your provider for a fluoride supplement.

One concern about fluoride is white spots or mottling on the teeth (called fluorosis). This can occur when a child has 2 mg or more fluoride per day. Children may get too much fluoride if they receive fluoride supplements when fluoride is already present in the city water supply. Occasionally they can get extra fluoride by eating their toothpaste. A ribbon of toothpaste contains about 1 mg of fluoride. Therefore, people of all ages should use only a drop of toothpaste the size of a pea. This precaution, and encouraging your child not to swallow most of the toothpaste, will prevent fluorosis.

### Toothbrushing and flossing

The purpose of toothbrushing is to remove plaque from the teeth. Plaque is the invisible scum that forms on the surface of teeth. Within this plaque, mouth bacteria change sugars to acids, which in turn etches the tooth enamel.

Toothbrushing should begin before a child is 1 year old. Help your child brush at least until after the age of 6 years. Most children don't have the coordination or strength to brush their own teeth adequately before then. If your child is negative about tooth-brushing, have him brush your teeth first before you brush his.

Try to brush after each meal, but especially after the last meal or snack of the day. To prevent mouth bacteria from changing food caught in the teeth into acid, brush the teeth within the first 5 to 10 minutes after meals. If your child is in a setting where he can't brush his teeth, teach him to rinse his mouth with water after meals instead.

Brush the molars (back teeth) carefully. Decay usually starts in the pits and crevices in these teeth. Dental floss is very useful for cleaning between the teeth where a brush can't reach. This should begin when your child's molars start to touch. In the early years, most of the teeth have spaces between them.

A fluoride toothpaste is beneficial at all ages starting at 1 year. Adults and children tend to use too much toothpaste. An amount the size of a small pea is all that you need.

### Diet

A healthy diet from a dental standpoint is one that keeps the sugar concentration in the mouth at a low level. The worst foods for your teeth contain sugar and also stick to the teeth.

If your child is a baby, prevent baby-bottle cavities by not letting your infant sleep with a bottle of milk or juice. After the

first teeth appear give your baby a bottle of water if your child must have a bottle at night. It is better to put your child to bed after he or she is finished with the bottle.

Avoid letting your child carry around a bottle or sippy-cups during waking hours. Young children who use milk, juice or other sweetened liquid for comforting, are prone to severe dental decay.

Discourage your child from eating foods such as hard candy or sticky sweets (for example, caramels or raisins). When a child eats these foods his or her teeth are in contact with sugar for a long time. Since no one can keep children away from candy completely, try to teach your child to brush after eating it. Avoid frequent snacks and offer foods that contain sugar with meals only.

### **Dental sealants**

The latest breakthrough in dental research is dental sealing of the pits and fissures of the biting surfaces of the molars. Fluoride does little to prevent decay on these surfaces. A special plastic seal can be applied to the top surfaces of the permanent molars at about age 6. The seal may protect against decay for 10 to 20 years without needing replacement. Ask your child's dentist about the latest recommendations.

### **Dentist visits**

The American Dental Association recommends that dental checkups begin at the age of 3 years (sooner for dental symptoms or teeth that look abnormal).

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by B.D. Schmitt, M.D., author of "Your Child's Health," Bantam Books. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## Discipline Basics

### About Discipline

The first goal of discipline is to protect your child from danger. Another very important goal is to teach your child an understanding of right from wrong. Good discipline gradually changes a self-centered child into a mature adult who is thoughtful and respectful of others, assertive without being hostile, and in control of his or her impulses. Reasonable limit-setting keeps us from raising a "spoiled" child. The word "discipline" means "to teach." It does not mean "to punish."

To teach respect for the rights of others, first teach your child about parents' rights. Children need parents who are "in charge." You will need to start showing your child that you are in charge at about 6 months of age. Children do not start to develop self-control until 3 or 4 years of age. They continue to need you to help control their behavior, in gradually decreasing amounts, through adolescence.

If your child has several discipline problems or is out of control, start reading the section titled "How to Begin a Discipline Program." If you want to learn more about normal discipline, go directly to the section titled "Guidelines for Setting Rules."

### How To Begin a Discipline Program

1. **List problem behaviors.** What do you want to change? Over the next 3 or 4 days, note and write down your child's inappropriate or annoying behavior traits.
2. **Set priorities for correcting the problem behavior.** Some misbehavior needs immediate attention (for example, behavior that might harm your child or others). Some behavior is too annoying or obnoxious to be ignored (such as not going to bed). Some unpleasant behavior (such as, saying "No" all the time between age 2 and 3) is normal and should be tolerated. Some families with a child who is out of control have too many rules and need to think about what misbehavior can be overlooked.
3. **Write house rules about the most important kinds of misbehavior.** See the section titled "Guidelines for Setting Rules."
4. **Decide what punishment you will use for each type of misbehavior.** All behavior, good and bad, is mainly affected (or shaped) by consequences. If the consequence is pleasant (for example, a reward or praise), the child is more likely to repeat that behavior. If the consequence is unpleasant (a punishment), the child is less likely to do the same thing again. Young children usually do not respond to lectures or reminders. Actions speak louder than words. The most effective actions are ignoring the misbehavior, redirecting the child to appropriate behavior, or giving your child a time-out. For further information on forms of punishment, see the section titled "Discipline Techniques."
5. **Temporarily stop any physical punishment.** Most out-of-control children are already too aggressive. Physical punishment teaches them that it's OK to be aggressive (for example, hit or hurt someone else) to solve problems.
6. **Stop yelling.** Yelling and screaming teach your child to yell back; you are thereby legitimizing shouting matches. Your child will sense from your yelling that you are not feeling in charge. Yelling often escalates the disagreement into a win-lose battle. Your child will respond better in the long run to a pleasant tone of voice and words of diplomacy.
7. **Don't take your child to public places until his or her behavior is under control at home.** Misbehaving children are usually more difficult to control in a shopping mall or supermarket than at home. Leave your child with a baby sitter or spouse when you need to go to these places.
8. **Take daily breaks from your child.** Ask your spouse to give you a break from supervising your young child, to take over all the discipline for a few hours. If this is impossible, hire a teenager a few times a week to look after your child while you go out. Also make a "date" for a weekly night out with your spouse or a friend.
9. **Give your child more positive feedback.** Children respond to discipline from people they feel loved by and want to please. Every child needs daily praise, smiles, and hugs. Give your child this increased attention when he or she is not demanding it, especially if the child is behaving well. Try especially hard to notice the times when your child is being good. If your child receives more negative comments and criticisms each day than positive responses, you need to restore an emotionally healthy balance by having less rules, criticizing your child less, and giving your child more praise and affection. Many experts feel that it takes several positive contacts to counter one negative one. (For further information, see the section titled "Guidelines for Positive Reinforcement.")
10. **Protect your child's self-esteem.** Your child's self-esteem is more important than how well disciplined he or she is. Don't discuss your child's discipline problems and your concerns about him or her when your child is around. Correct your child in a kind way. Sometimes begin your correction with "I'm sorry I can't let you ...." Don't label your child a "bad girl" or "bad boy." After punishment is over, welcome your child back into the family circle, telling him or her that all is forgiven.

## Guidelines for Setting Rules

1. **Begin discipline at about 6 months of age.** Newborns don't need any discipline. Starting at 6 months, however, parents can begin to clarify their own rights. If your child makes it difficult to change a diaper by kicking and wiggling you can say firmly, "No, help Mommy change your diaper." By 8 months of age, children need rules for their own safety.
2. **Express each misbehavior as a clear and concrete rule.** Your child may not understand vague descriptions of misbehavior such as "hyperactive," "irresponsible," or "mean." The younger the child, the more concrete the rule must be. Examples of clear rules are: "Don't push your brother" and "Don't interrupt me on the telephone."
3. **Also state the acceptable, desired, adaptive, or appropriate behavior.** Your child needs to know what is expected of him or her. Examples are: "Play with your brother," "Look at books when I'm on the telephone," or "Walk, don't run." Make your praise of good behavior specific; for example, "Thank you for being quiet."
4. **Ignore unimportant or irrelevant misbehavior.** The more rules you have, the less likely your child is to obey them. Constant criticism usually doesn't work. Behavior such as swinging the legs, poor table manners, or normal negativism is unimportant during the early years.
5. **Use rules that are fair and attainable.** Rules must fit your child's age. A child should not be punished for clumsiness when he or she is learning to walk, nor for poor pronunciation when the child is learning to speak. In addition, a child should not be punished for behavior that is part of normal emotional development, such as thumbsucking, fears of being separated from his or her parents, and toilet training accidents.
6. **Concentrate on two or three rules initially.** Give highest priority to issues of safety, such as not running into the street, and to the prevention of harm to others. Of next importance is behavior that damages property. Then come all the annoying behavior traits that wear you down.
7. **Avoid trying to change "no-win" power struggles through punishment.** "No-win behavior" is behavior that usually cannot be controlled by the parent if the child decides to continue it. Examples are wetting pants, hair pulling, thumbsucking, body rocking, masturbation, not eating enough, not going to sleep, and refusal to complete schoolwork. The first step in resolving such a power struggle is to withdraw from the conflict and stop punishing your child for the misbehavior. Then give your child positive reinforcement, such as praise, when he or she behaves as you'd like. (See the section titled "Guidelines for Positive Reinforcement.")
8. **Apply the rules consistently.** After the parents agree on the rules, it may be helpful to write them down and post them in a conspicuous place in the home.

## Discipline Techniques (Including Consequences)

1. **Summary of techniques to use for different ages** The techniques mentioned here are further described after this list.
  - From birth to 6 months: no discipline necessary.
  - From 6 months to 3 years: structuring the home environment, distracting, ignoring, verbal and nonverbal disapproval, moving or escorting, and temporary time-out.
  - From 3 years to 5 years: the preceding techniques (especially temporary time-out), plus natural consequences, restricting places where the child can misbehave, and logical consequences.
  - From 5 years to adolescence: the preceding techniques plus delay of a privilege, "I" messages, and negotiation and family conferences. Structuring the environment and distraction can be discontinued.
  - Adolescence: logical consequences, "I" messages, and family conferences about house rules. By the time your child is an adolescent, you should stop using manual guidance and time-out techniques.
2. **Structuring the home environment** You can change your child's surroundings so that an object or situation that could cause a problem is eliminated. Examples are: putting breakables out of reach, fencing in a yard, setting up gates, putting locks on a special desk, or locking certain rooms.
3. **Distracting your child from misbehavior** Distracting a young child from temptation by attracting his or her attention to something else is especially helpful when the child is in someone else's house, a doctor's office, or a store. It would be difficult to use other options for discipline (such as time-out) in such places. You may also want to give your child something to distract him or her from trouble if you're going to be busy at home with guests, the telephone, or feeding a baby. Most children can be distracted with toys or food. School-age children may need books, games, or other activities to keep their attention. Distracting is also called "diverting" or "redirecting."

4. **Ignoring the misbehavior** Ignoring helps stop unacceptable behavior that is harmless--such as tantrums, sulking, whining, quarreling, or interrupting. The proper way to ignore this behavior is to move away from your child, turn your back, avoid eye contact, and stop any conversation with your child. Ignore any protests or excuses. Sometimes you may need to leave the area where your child is misbehaving. Ignoring is also called extinction.
5. **Verbal and nonverbal disapproval** Mild disapproval is often all that is required to stop a young child's misbehavior. Get close to your child, get eye contact, look stern, and give a brief, direct instruction, such as "No" or "Stop." You can speak in a disapproving but soft tone because you are close to your child. Show your child what you want him or her to do. You may want to underscore that you are serious by pointing or shaking your finger. The most common mistake parents make when they use this technique is smiling or laughing.
6. **Moving or escorting (manual guidance)** "Manual guidance" means that you move a child from one place to another against his or her will. Sometimes children must be physically moved from a place where they are causing trouble to a time-out chair. At other times they must be taken to the bed, bath, or car if they refuse to go on their own. Guide your child by the hand or forearm. If your child refuses to be led, pick the child up from behind and carry him or her.
7. **Temporary time-out or social isolation** Time-out removes the child from the scene of the unacceptable behavior to a boring place (for example, a playpen, corner, chair, or bedroom). Time-out is the most effective discipline technique available to parents for dealing with misbehaving infants and young children. Time-outs should last about 1 minute per year of age and not more than 5 minutes.
8. **Natural consequences** By experiencing the natural consequences of his or her own actions, your child learns good behavior from the natural laws of the physical world. Examples are: Coming to dinner late means the food will be cold; not dressing properly for the weather means your child will be cold or wet; not wearing mittens while playing in the snow will lead to cold hands; running on ice can lead to falling down; putting sand in the mouth leads to an unpleasant taste; breaking a toy means it isn't fun to play with anymore; and going to bed late means being sleepy in the morning. Although it is very helpful for children to learn from their mistakes, it is important that they not be allowed to do anything that could hurt them or others, such as by playing with matches or running into the street.
9. **Restricting places where a child can misbehave** This technique is especially helpful for behavior problems that can't be eliminated. Allowing such misbehavior as nose picking and masturbation in your child's room prevents an unnecessary power struggle. Roughhousing can be restricted to outdoors. You may decide to allow your child to ride the tricycle only in the basement during winter.
10. **Logical consequences** Logical consequences are consequences that you impose on your child as a result of his or her misbehavior. They should be logically related to the misbehavior, making your child accountable for his or her problems and decisions. Many logical consequences are simply the temporary removal of a possession or privilege. Examples are: taking away toys or crayons that are not handled properly, not replacing a lost toy, not repairing a broken toy, sending your child to school partially dressed if the child won't dress himself or herself, having your child clean up milk the child has spilled or a floor the child has tracked mud on, having your child clean messy underwear, and turning off the TV if children are quarreling about it. In addition, your child can temporarily lose TV, telephone, shopping, bicycle, and car privileges if they are misused. The schoolteacher will provide appropriate logical consequences if your child does not complete homework assignments. Do not punish children by depriving them of basic essentials, such as a meal; organized activities with groups such as a team or scout troop; or events your child has looked forward to for a long time, such as going to the circus.
11. **Delay of a privilege** This technique involves requiring your child to finish a less preferable activity before a more preferable one is allowed ("work before play"). Examples are: "After you clean your room, you can go out and play"; "When you finish your homework, you can watch TV"; and "When you have tasted all your foods, you can have dessert."
12. **"I" messages** When your child misbehaves, tell your child how you feel. Say, "I am angry" or "I am upset when you do such and such." Your child is more likely to listen and respond positively to you than if everything you say to your child starts with "you." "You" messages usually trigger a defensive reaction.
13. **Negotiation and family conferences** As children become older they need more communication and discussion with their parents about problems. A parent can begin such a conversation by saying, "We need to change these things. What are some ways we could handle this?" Discussions involving the whole family (family conferences) also are helpful.

### Guidelines For Giving Consequences (Punishments)

1. **Be unambivalent.** Mean what you say and follow through. Be stern and tough. Take charge.
2. **Correct with love.** Talk to your child the way you want people to talk to you. Avoid yelling or using a disrespectful tone of voice. For example, say gently, "I'm sorry you left the yard. Now you must stay in the house."
3. **Give one warning or reminder before you punish your child.** When you know your child understands the rule,



this warning is unnecessary and you can punish your child without a warning. Do not just keep repeating threats of punishment if your child doesn't stop what he or she is doing.

4. **Punish your child for clear intent of aggressive behavior.** Try to stop your child before someone is hurt or damage is done. An example would be that you see your child raising a toy to hit a playmate.
5. **Give the consequence immediately.** Delayed consequences are less effective because young children forget why they are being punished. Punishment should occur very soon after the misbehavior and be administered by the adult who witnessed the misdeed. An exception for children older than 4 or 5 years of age is when they misbehave outside the home, where you cannot give a time-out. You could put checkmarks on your child's hand with a felt-tip pen to indicate the number of punishments the child will receive when you get home. The punishments might be 30 minutes of lost TV time for each checkmark.
6. **Make a one-sentence comment about the rule when you punish your child.** Avoid making a long speech.
7. **Ignore your child's arguments while you are correcting him or her.** This is the child's way of delaying punishment. Especially under 3 years of age, children mainly understand action, not words.
8. **Make the punishment brief.** Take toys out of circulation for no more than 1 or 2 days. Time-outs should last no longer than 1 minute per year of the child's age.
9. **Keep the consequence in proportion to the misbehavior.** Also try to make the consequence relate to the misbehavior (logical consequences).
10. **Follow the consequence with love and trust.** Welcome your child back into the family circle and do not comment upon the previous misbehavior or require an apology for it.
11. **Direct the punishment against the misbehavior, not the person.** Avoid degrading comments such as, "You never do anything right."
12. **Expect behavior to get worse before it gets better.** Children who are out of control initially go through a phase of testing their parents before they comply with the new system. This testing usually lasts 2 or 3 days.

### **Guidelines for Positive Reinforcement of Desired Behavior**

Most parents don't give enough positive reinforcement, especially touching and hugs. Don't take good behavior for granted. Watch for behavior you like, then praise your child by saying such things as "I like the way you ...," or "I appreciate ...." When you say this, move close to your child, look at him or her, smile, and be affectionate. A parent's affection and attention is the favorite reward of most children.

There are two kinds of positive reinforcement: social and material. Social positive reinforcement, such as praise, should be used when your child behaves in a desired way. Praise the behavior, not the person. Examples are sharing toys, having good manners, doing chores, playing cooperatively, treating the baby gently, petting the dog gently, being a good sport, cleaning the room, or reading a book. Your child can also be praised for trying, such as trying to use the potty or attempting something difficult, like a puzzle. Praise will make your child want to behave well more often. Try to "catch" your child being good, and comment on it three or more times for every one time you discipline or criticize your child.

Material reinforcers are often candy, animal crackers, money or video-time. Use material reinforcers as incentives to increase the frequency of more responsible behavior. They may be useful in overcoming resistance when children are entrenched in power struggles around "no-win" behaviors (for example, wetting or soiling their pants). Material reinforcers should be used for only one problem behavior at a time and when praise alone hasn't worked. They should be phased out and replaced by natural (social) reinforcers as soon as possible.

### **Call Your Child's Health Care Provider During Office Hours If:**

- Your child's misbehavior is dangerous.
- The instances of misbehavior seem too numerous to count.
- Your child is also having behavior problems at school.
- Your child doesn't seem to have many good points.
- Your child seems depressed.
- The parents can't agree on discipline.
- You can't give up physical punishment. (Note: Call immediately if you are afraid you might hurt your child.)
- The misbehavior does not improve after 1 month of using this approach.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by B.D. Schmitt, M.D., author of "Your Child's Health," Bantam Books. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

# Toilet Training Your Child: The Basics

## What is toilet training?

Your child is toilet trained when, without any reminders, he walks to the potty, pulls down his pants, urinates or passes a bowel movement (BM), and pulls up his pants. Some children will learn to control their bladders first. Others will start with bowel control. Both kinds of control can be worked on simultaneously. Bladder control through the night normally happens several years later than daytime control. The gradual type of toilet training discussed here can usually be completed in 1 to 3 months, if your child is ready.

## How can I help my child get ready for toilet training?

Don't begin training until your child is clearly ready. Readiness doesn't just happen. It involves concepts and skills you can begin teaching your child at 18 months of age or earlier. All children can be made ready for toilet training by 3 years, most by 2 1/2 years, many by 2 years and some earlier. Ways to help a child become ready include the following:

### 18 months: Begin teaching about pee, poop and how the body works.

- Teach the vocabulary (pee, poop, potty, etc.).
- Clarify that everyone makes pee and poop.
- Point out when dogs or other animals are going pee or poop.
- Clarify the body's signals when you observe them: "Your body wants to make some pee or poop."
- Praise your child for passing poop in the diaper.
- Do not refer to poop as dirty or yucky stuff.
- Make changing diapers pleasant for the child so he will come to you.
- Change your child frequently so he will prefer dry diapers.
- Teach your child to come to a parent whenever he is wet or soiled.

### 21 months: Begin teaching about the potty and toilet.

- Teach what the toilet and potty chair are for ("the pee or poop goes in this special place"). Demonstrate by dumping poop from diapers into the toilet.
- Portray using the toilet and potty chair as a privilege.
- Have him observe toilet-trained children use the toilet or potty chair (having an older toilet-trained sibling can be very helpful).
- Buy a floor-level type potty chair. You want your child's feet to touch the floor when he sits on the potty. This provides leverage for pushing and a sense of security. He also can get on and off whenever he wants to. Take your child with you to buy the potty chair. Make it clear that this is your child's own special chair. Have your child help you put his name on it. Allow your child to decorate it or even paint it a different color.
- Have your child sit on the potty chair for fun. Have your child sit on it fully clothed until he is comfortable with using it as a chair. Have your child use it while eating snacks, playing games, or looking at books. Keep it in the room in which your child usually plays. Never start actual toilet training unless your child clearly has good feelings toward the potty chair. Help the child develop a sense of ownership ("my chair").
- Then, bring his potty chair in the bathroom and have him sit on it (bare-bottom) when you sit on the toilet. Don't allow diapers or pull-ups in the bathroom.

### 2 years: Begin using teaching aids.

- Read toilet learning books and watch toilet learning videos.
- Help your child pretend she's training a doll or stuffed animal on the potty chair.

- Present underwear as a privilege. Buy special underwear and keep it in a place where the child can see it.

## How do I toilet train my child?

1. **Encourage practice runs to the potty.** A practice run (potty sit) is encouraging your child to walk to the potty and sit there with his diapers or pants off. Your child can then be told, "Try to go pee-pee in the potty." Only do practice runs when your child gives a signal that looks promising, such as a certain facial expression, grunting, holding the genital area, pulling at his pants, pacing, squatting, squirming, etc. Other good times are after naps, 2 hours without urinating, or 20 minutes after meals. Say encouragingly, "The poop or pee wants to come out. Let's use the potty." If your child is reluctant to sit on the potty, you may want to read him a story. If your child wants to get up after 1 minute of encouragement, let him get up. Never force your child to sit there. Never physically hold your child there. Even if your child seems to be enjoying it, end each session after 5 minutes unless something is happening. Initially, keep the potty chair in the room your child usually plays in. This easy access greatly increases the chances that he will use it without your asking him. Consider owning 2 potty chairs. During toilet training, children need to wear clothing that's conducive to using the potty. That means one layer, usually the diaper. Avoid shoes and pants. (In the wintertime, turning up the heat is helpful.) Another option (though less effective) is loose sweatpants with an elastic waistband. Avoid pants with zippers, buttons, snaps, or a belt.
2. **Praise or reward your child for cooperation or any success.** All cooperation with these practice sessions should be praised. For example, you might say, "You are sitting on the potty just like Mommy," or "You're trying real hard to go pee-pee in the potty." If your child urinates into the potty, he can be rewarded with treats such as, animal cookies or stickers, as well as praise and hugs. Although a sense of accomplishment is enough for some children, many need treats to stay focused. Big rewards (such as going to the toy store) should be reserved for when your child walks over to the potty on his own and uses it or asks to go there with you and then uses it. Once your child uses the potty by himself two or more times, you can stop the practice runs. For the following week, continue to praise your child frequently for using the potty. Practice runs and reminders should not be necessary for more than 1 or 2 months.
3. **Change your child after accidents.** Change your child as soon as it's convenient, but respond sympathetically. Say something like, "You wanted to go pee-pee in the potty, but you went pee-pee in your pants. I know that makes you sad. You like to be dry. You'll get better at this." If you feel a need to be critical, keep it to mild verbal disapproval and use it rarely (for example, "Big boys don't go pee-pee in their pants," or mention the name of another child whom he likes and who is trained). Then change your child into a dry diaper or training pants in as pleasant and nonangry a way as possible. Avoid physical punishment, yelling, or scolding. Pressure or force can make a child completely uncooperative.
4. **Introduce underpants after your child starts using the potty.** Regular underwear can spark motivation. Switch from diapers to underpants after your child is cooperative about sitting on the potty chair and passes urine into the toilet spontaneously 10 or more times. Take your child with you to buy the underwear and make it a reward for his success. Buy loose-fitting ones that he can easily lower and pull up by himself. Once you start using underpants, use diapers only for naps, bedtime and travel outside the home.
5. **Plan a bare bottom weekend.** If your child is older than 30 months and has successfully used the potty a few times with your help and clearly understands the process, commit 6 hours or a weekend exclusively to toilet training. This can usually lead to a breakthrough. Avoid interruptions or distractions during this time. Younger siblings must spend the day elsewhere. Turn off the TV and do not answer the phone. Success requires monitoring your child during these hours of training. The bare bottom technique means not wearing any diapers, pull-ups, underwear or any clothing below the waist. This causes most children to become acutely aware of their body's plumbing. Children innately dislike pee or poop running down their legs. You and your child should stay in the vicinity of the potty chair. This can be in the kitchen or other room without a carpet. A gate may help your child stay on task. During bare bottom times, supervise your child but refrain from all practice runs and most reminders, allowing the child to learn by trial and error with your support. Create a frequent need to urinate by offering your child lots of her favorite fluids. Have just enough toys and books handy to keep your child playing near the potty chair. Keep the process upbeat with hugs, smiles and good cheer. You are your child's coach and ally.

## What if toilet training isn't working?

There are some children who are resistant to toilet training. Your child is considered resistant if after trying to toilet train your child using the method described above:

- Your child is over 2 1/2 years old and has a negative attitude about toilet training.
- Your child is over 3 years old and not daytime toilet trained.
- Your child won't sit on the potty or toilet.
- Your child holds back bowel movements.

- The approach described here isn't working after 6 months.

If your child is resistant to toilet training, ask your health care provider for ideas and information about toilet training resistance.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by B.D. Schmitt, M.D., author of "Your Child's Health," Bantam Books. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## Tips for Car Travel After the First Year

Car trips should be a pleasant time for you and your child. It is a good time for pleasant conversation and for teaching your child how to behave in the car. Correct placement in an approved child restraint device is the safest way to travel, even for short trips, for your child.

For kids more than a year old and between 20 and 40 pounds, you will need a forward-facing car seat. Read the directions that come with the car seat. Kids between 40 and 80 pounds and less than 4 foot 9 inches tall can use a booster seat. A booster seat makes lap and shoulder belts fit correctly over the upper thighs and hips and over the shoulder. Seat belts can be used for children over 80 pounds and taller than 4 feet 9 inches tall.

At any age, put the safety seat in the back seat of the car. It is much safer than the front seat. If your car has an airbag on the passenger side of the front seat, never place your child in the front seat. The airbag can actually hurt young children.

If your child is over 1 year old and has not ridden in a car safety seat before, follow these guidelines to help your child get used to the safety seat.

- Show the car safety seat to your child. Let him touch it and check it out. Be calm and matter-of-fact as your child learns about it.
- Make sure the car seat is installed correctly in the car. Read the instructions carefully. If you aren't sure if your seat fits properly in your car, contact a children's hospital or local fire department. Many of them have a child seat loaner program and can help you find a seat that fits properly and help you install it correctly.
- Set rules such as no throwing anything in the car, no playing with door locks or windows, and no unfastening safety belts. Remind your child about the rules of behavior before all car rides.
- Your first rides with the safety seat should be short practice rides, perhaps around the block. Point out interesting things that your child can see. Make it a positive experience for both of you.
- Praise your child often for behaving well. (For example: "Mike, you are sitting so quietly in your seat. Mommy is proud of you. You are a good boy....") You cannot praise your child too often.
- Include your child in pleasant conversation. (For example: "That was sure a good lunch. You really like hot dogs." or "You were a big help to me in the store." or "It'll be fun visiting grandma....")
- This is also a good time to teach your child about the world. (For example, "Callie, see that big, red, fire truck? Look at how fast it is going. What do firemen do? The light on the top is red. What else is red?") What you teach needs to be geared to the age of your child.
- With your frequent praise, teaching, and pleasant conversation, your child will stay interested and busy. He will pay attention to you instead of trying to get out of the seat.
- If your child even begins to try to release the seat belt or to climb out of the car seat, immediately tell him "No" in a firm voice. On your first few trips, pull over and stop and don't start driving the car until all is quiet. Also, state the rule clearly: "Do not take off your seat belt." Discipline your child if he tries to get out of the seat.
- Ignore yelling, screaming, and begging. As soon as your child is quiet, praise her for being quiet. You also should not yell, scream, and beg. Stay calm and matter-of-fact. Keep your child busy in conversation and looking at her world. Do not let your child out of the seat while you are traveling. This only teaches your child that yelling, screaming, and begging will finally get you to let her do what she wants.
- Older siblings should also be expected to behave well. If the young child sees an older sibling climbing or hanging out the window, he will want to do it also. Include older siblings in the conversation, praise, and teaching.
- Right after the ride, reward your child with 5 to 10 minutes of your time doing something that your child likes. For example, you might read a story or play a game, or let your child help fix lunch or put away the groceries. Do not get into the habit of buying presents for her good behavior. She enjoys time with you and it's less expensive and more rewarding for both of you.
- If your child is going to travel in an car with other drivers (grandparent, aunt, uncle, or baby sitter), make sure that they use the car safety seat. Make sure it is correctly fastened with the car seat belt.
- Never allow children to ride in the cargo area of a pick-up truck, minivan, or station wagon.
- Park where your child can get out of the car on the sidewalk side away from traffic. Never leave a child unattended in a parked car even for a minute.
- Do not have packages or heavy or sharp objects loose in the car. A sudden stop can cause them to shift and injure passengers.

- To help prevent choking, avoid lollipops, ice cream bars on a stick, and drinks with straws. Do not let children eat in a moving car.
- Hot belt and harness buckles can cause burns. Cover metal parts during hot weather.
- Make sure all doors are locked before starting the car. Teach children never to play with doors and locks.
- Carry a first aid kit and a fire extinguisher in your car.

In all states it is illegal for a child to ride in the car without being securely buckled into a safety seat. It is illegal because it is very, very dangerous. Please do what is best for your child--use a safety seat during every car ride.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by E. Christophersen, PhD, author of "Pediatric Compliance: A Guide for the Primary Care Physician." This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## How Young Children Learn

Children learn through repetition. It takes practice for a child to crawl, drink from a cup, learn new words, or cross the street safely. Your child doesn't get bored when she repeats things. She needs to practice the same thing over and over again. By repeating things until she learns them, your child builds confidence to try new things. Be patient, and be prepared to repeat things several times before your child learns the lesson.

When you are teaching your child, give reasons when you ask your child to do something. Say, for example, "Please move your truck from the stairs so no one falls over it", rather than "Move it because I said so."

When your child does something wrong, criticize the behavior but not the child. Instead of saying "You are a bad boy!" say, "I love you, but it's not okay for you to draw pictures on the walls. I get angry when you do that." This helps your child learn that it is not okay to do certain things, without being scared that you do not love him anymore.

Catch your child doing something right. Praise your child for a job well done. Smiles and encouragement usually work much better than punishment.

Let your child do many things by herself. Young children need to be watched closely. However, they learn to make choices and build confidence by dressing themselves and putting their toys away.

Read aloud to your child every day. Even babies as young as 6 weeks love to be read to. Reading together gives your child a chance to learn about language and enjoy the sound of your voice.

Play is another way that children learn. Play helps children learn to solve problems, such as how to get toys upright if they fall over. When they stack up blocks, children learn about colors, numbers, geometry, shapes, and balance. Playing with others helps children learn how to share and not always get their own way. Give your child lots of changes to play.

Take your child to do and see new things. Go for walks in your neighborhood or go places on the bus. Visit museums, libraries, zoos and other places of interest. If you live in the city, spend a day in the country. If you live in the country, spend a day in the city. Let your child play music, dance, and paint.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Developed by McKesson Corporation. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.



## Burn Safety: Hot Water Temperature

The leading cause of deaths and injuries to children at home is accidents. Scalding from hot water is one of the most dangerous of these accidents. The following chart shows just how dangerous hot water can be.

Temperature of Water	Time to Cause a Bad Burn
150°F (66°C)	2 seconds
140°F (60°C)	6 seconds
125°F (52°C)	2 minutes
120°F (49°C)	10 minutes

Small children can get to sinks or bathtubs quickly. They can get badly burned before they can get out of the water. Infants are unable to move away from hot water if it is accidentally left on too hot or if the cold water is unintentionally turned off. Here are some tips to keep in mind:

- When using tap water, always turn on the cold water first, then add hot. When finished, turn the hot water off first.
- Do not use hot steam vaporizers. They can cause steam burns. Use a cool mist vaporizer.
- Never leave a child alone in the bathroom for any reason. They are at risk for getting burned by hot water or drowning.

If your hot water heater is set at 150°F (66°C) and your child comes in contact with the hot water for just 2 seconds, your child will get burned badly enough to need medical treatment.

Here are some common questions and answers about hot water heater settings.

1. Q: If I turn the hot water heater setting down, won't I have trouble getting the dishes in the dishwasher and the clothes in the washing machine clean? A: No. The major soap manufacturers design their soap to work best in water between 120°F and 125°F (49°C to 52°C).
  2. Q: Will my baby get more colds if the hot water isn't hot enough? A: No. Hot water has nothing to do with getting colds.
  3. Q: Will we run out of hot water any sooner if we turn the temperature down? A: Yes, you will. But this may be a small price to pay to protect your child.
  4. Q: Will I save any money on utility bills by turning down the temperature setting? A: Yes. On the average, for every 10°F (6°C) that you turn the temperature down, you will save 4% on the water-heating portion of your utility bill.
  5. Q: I don't know where the thermostat of my hot water heater is, and I don't know how to tell at what temperature it is set. How can I tell? A: First measure the hot water temperature. The best way to do this is to measure it in the morning, before anyone in your home has used any hot water. Turn on the hot water at the kitchen sink and let it run for 2 minutes. Then, using either an outdoor thermometer or a candy thermometer, hold the thermometer in the stream of the water until the reading stops going up. If your water-heater setting is at a safe level (between 120°F and 125°F, or 49°C to 52°C), you don't have to do anything. There is no advantage to setting the thermostat below 120°F (49°C). If your hot water setting is too high, here are some tips on how to find the thermostat and turn it down.
- Gas hot water heaters usually have a thermostat outside the tank at the bottom. Electric water heaters usually have either two panels screwed to the top and bottom of the tank or one panel along the side of the tank. Thermostats are located under these panels.
  - The thermostat should be set on the "low" setting or within the "energy efficient range." If the temperature at the kitchen sink is too hot at this setting, adjust the thermostat to a lower setting. After changing the thermostat setting, you can test the hot water temperature again about 24 hours later. If you test it in less than 24 hours, you may not get an accurate reading. Continue to test the water temperature and adjust the thermostat setting until the water is no hotter than 125°F (52°C). If you get it below 120°F (49°C), then turn it back up a small amount.

Please, take some time to think about the risk to your child from hot water in your home. Think about whether the convenience of having lots of very hot water is really worth the added risk that you might be taking with your child's health. Your child is at less risk for hot water burns by age 4.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by Edward R. Christophersen, PhD. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## Smoke, Heat, and Carbon Monoxide Detectors

The leading cause of deaths and injuries to children at home is accidents. Fires are one of the most dangerous of such accidents. Most fatal home fires occur at night, while people sleep. If you are asleep or become disoriented from toxic gases produced by a fire, you may not even realize that there is a fire. A smoke or heat detector can sound an alarm and alert you to the danger in time to escape.

Carbon monoxide is a colorless, odorless gas that is made by many household appliances (furnaces, dryers, ranges, ovens, and heaters). Usually, carbon monoxide and other gases are vented to the outside. But, if something goes wrong and carbon monoxide leaks into your home, it could be deadly. The alarm of a carbon monoxide detector will go off in time to get out before a normal adult starts feeling sick.

The following are some common questions and answers about smoke, heat, and carbon monoxide detectors.

1. **Q. What are the types of alarms or detectors?** A: There are 3 types of detectors:
  1. Heat detectors, which sound an alarm to warn of an abnormally high temperature near the detector.
  2. Smoke detectors, which sound an alarm at the first trace of smoke.
  3. Carbon monoxide detectors, which sound an alarm if the carbon monoxide level in the home is too high.
2. **Q: What is the power source for these detectors?** A: Some detectors operate on batteries. Others are either plugged into a wall outlet or wired directly into the house.
3. **Q: What are the pros and cons of the battery powered alarms?** A: An advantage of battery alarms is that they are not affected by a fire that cuts off the electricity to the house. Also, they can be put anywhere, even where there are no electrical outlets or wires. The disadvantages are that the batteries need to be changed about once a year and the beep signaling a low battery can be annoying.
4. **Q: What is the best type of battery to use?** A: Lithium batteries can last up to 5 or 6 years, reducing the chance that the detector will have a dead battery when you need it most. However, lithium batteries are a lot more expensive.
5. **Q: What are the pros and cons of the detectors powered by household current?** A: You do not have to change batteries and there is no annoying beep when the battery is low. However, fires that affect the household current will make the alarm not work. Also, detectors must be placed where wiring or outlets are available.
6. **Q: Do I have to do anything to maintain my detectors?** A: Yes. You should test them once a month by holding a candle 6 inches away and blowing smoke toward the detector. The alarm should sound in 20 seconds. Some alarms have test buttons, but to be sure the detector works, you must use the smoke-testing method. To test your carbon monoxide detector, just use the test button. For all types of detectors, replace batteries at least once a year and when they are low. Use the correct kind of battery. You must clean the unit at least once a year by vacuuming the detector. Never paint the detector.
7. **Q: With so many brands of detectors on the market, how do I choose one?** A: Be sure to buy a detector that has the label of a testing laboratory, for example, Underwriter's Laboratory (UL). Follow the installation and maintenance recommendations of the manufacturer. Buy the type that best suits your household needs and budget.
8. **Q: How many smoke, heat, or carbon monoxide detectors should I buy for my house?** A: Install a smoke or heat detector outside each bedroom area and one on each floor of the house. For extra protection, you can also put them in bedrooms, the dining room, furnace room, utility room, attic, garage, and hallways. Carbon monoxide detectors should be just outside of or in each bedroom.
9. **Q: Where should the detectors be placed?** A: All types of detectors should be mounted on the ceiling. Smoke rises so to detect the first traces of smoke a detector could also be mounted high on a wall (4 to 12 inches from the ceiling).
10. **Q: How much will it cost to install smoke, heat, or carbon monoxide detectors?** A: You can buy detectors for about \$7 to \$60 each. Packaged fire detection systems may cost \$300 and up.

The extra time provided by a detector alarm may allow your family to escape unharmed from a fire or carbon monoxide poisoning. The extra time and money spent on buying, installing, and maintaining your detectors could save your lives.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by E. Christophersen, PhD, author of "Pediatric Compliance: A Guide for the Primary Care Physician." This content is

reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## Adjusting to School

A little planning and encouragement goes a long way toward helping your child have a good attitude about school.

1. **Help your child unwind once the school day is over.** Give your child focused attention every day. Talk about the school day. Listen for feelings of anger or fear along with feelings of excitement and satisfaction. Your child's time at school is quite structured. Don't overschedule time after the school day is over. Help your child to let off steam through active outdoor play or sports.
2. **Help your child get organized.** Arrange study space. Set aside one corner somewhere in your home where your child can concentrate. Provide a table or desk, good lighting, reference materials, and school supplies. If possible, keep the study area far from tempting distractions like the TV. Plan for the next day. Help your child get into the habit of organizing things. Check on clothes, lunch money, permission slips, and homework the night before. Both you and your child will be less frazzled in the morning. Note important dates. Buy a giant wall calendar with large boxes. If your child is too young to read or write, draw pictures symbolizing important school activities. Help an older child jot down dates of tests, reports, field trips, and special events.
3. **Set up a regular homework routine.** Doing homework before or after dinner is a good habit for most children. While things may need to change sometimes, a fixed time each afternoon or evening for school assignments will keep your child from panicking at the last minute.
4. **Be available to encourage your child.** Show your children you care about how they do in school. Make yourself available at some time each day. If your child has problems with a certain subject, talk to the teacher about things you could do at home as well as tutoring or other special attention at school. Do not do homework for your child. This is not a way to protect them. It keeps the child from learning the subject. It also keeps them from learning self-confidence.
5. **Show your child that learning is fun and natural.** Ask questions, exchange ideas, and get your child's opinion on different topics. Keep books, games, and projects around the house. The family might go on a field trip together. Places to visit could include a working farm, museum, zoo, radio or television station, or the state capital. Above all, let your child see you enjoying new challenges and activities.
6. **Become involved in your child's school.** By joining a parent-teacher organization or volunteering your time, you share more of your child's world. You are also in a better position to understand and make suggestions for improvement.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by Donna Warner Manczak, PhD, MPH. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## **Normal Development: 8 Years Old**

### **Physical Development**

- Continues to be accident prone, especially on the playground.
- Has more control over small muscles, and therefore writes and draws with more skill.
- Displays a casual attitude toward clothing and appearance.
- Seems to be all hands and arms.
- May be concerned about height and weight.
- Seems to possess boundless energy.

### **Emotional Development**

- Begins to realize others experience similar feelings of anger, fear, and sadness.
- Is easily embarrassed.
- Becomes discouraged easily.
- Is often self-deprecating.

### **Social Development**

- Can be argumentative and bossy.
- Can be generous and responsive.
- Shows increasing ability to understand the needs and opinions of others.
- Is preoccupied with finding compatible friends.
- Especially likes to belong to informal "clubs" formed by children themselves.
- Also likes to belong to more structured adult-led groups such as Scouts.
- Begins to display a sense of loyalty.
- Enjoys secrets.
- Shows some hostility toward the opposite sex.
- May question duty to participate in household chores.

### **Mental Development**

- Is often idealistic.
- Is keenly interested in projects and collections.
- Is proud of completing tasks.
- Resists adult guidance at times.

These guidelines are offered as a way of showing a general progression through the developmental stages rather than as

fixed requirements for normal development at specific ages. It is perfectly natural for a child to attain some milestones earlier and other milestones later than the general trend.

If you have any concerns related to your child's own pattern of development, check with your health care provider.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by Donna Warner Manczak, PhD, MPH and Robert Brayden, MD. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

## Preparing for the First Day of School

Even if your child has been in child care, the first day of "real" school is an important event often marked by tense anticipation. Getting your child off to a good start the first few weeks of school will build future positive attitudes.

If your child is about to start school for the first time, you may find the following ideas helpful.

1. **Visit the school a few times before the start of classes.** Get to know the school on the weekend. A big, new school is less intimidating on a quiet Saturday or Sunday. Walk or drive the route your child will take, look at the playground, walk around the school, and even look into a window. This helps your child begin get used to the new environment. Try to find out the name of your child's teacher. If possible, let your child see the room and meet the teacher before the first day of school. Many schools have specific times when you can learn more about the school.
2. **Allow your child to feel scared about starting school.** Do not try to dismiss or ignore your child's feelings of fear. Point out that children are sometimes scared when they first go off to school because they miss their parents and do not know what to expect--some children even cry a little at first. Tell your child that the teacher knows a lot about children, and will take very good care of your child. Talk about the feelings you had during your first day of school, and tell something funny or positive that happened to you. Finally, if you work outside the home, try to arrange a few extra hours at home during your child's first week, if possible.
3. **Prepare your child at home.** Try to arrange to have your child meet a classmate before school starts. That way, your child will see a friendly face on the first day. You can relieve some anxiety by playing school at home. It also helps to talk in specific terms about what will happen. Talk about how your child will get to and from school. Talk to your child about what he or she is likely to do during the day and what you will be doing while your child is away. Tell your child what will happen once school is over for the day. Read books together about other children's school experiences.
4. **Try not to make a big deal about the first day of school.** Your child's first day of school is indeed a milestone. Do prepare and provide reassurance, but do not treat it as a world-shaking event. Your child will reach the first day of school with less fear if it is treated as a normal part of everyday life. Put a note in your child's lunchbox or a sticker on his notebook that makes him smile.
5. **Once at school, do not force your child to participate.** Allow your child to get used to the new place by observing rather than taking part. Your child is likely to resist if you push too hard.
6. **Make your good-byes short and visible.** If you do take your child to the classroom, do not try to sneak away while your child is doing an activity. Always say good-bye. When you say good-bye, act casual and upbeat. If your child protests, stay calm and state firmly that there is no other choice. Let your child know that you will see him at the end of the day.
7. **After school, ask about your child's day.** Ask questions such as "What happened at school. Did you make new friends? Did you have fun? What did you do?" Show special attention and affection. Let your child know that you are proud of her.

Pediatric Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Written by Donna Warner Manczak, PhD, MPH. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.