

## From the Nurse: Kids Aren't Just Small Adults - Medicines and Children

Children are physiologically very different from adults. They are in a dynamic state of growth, with cells multiplying and organ systems developing at a rapid rate. Kids have higher metabolic rates and a higher proportionate intake of food and liquid than do adults and the rate at which they absorb nutrients from the gastrointestinal tract is also different than the rate for adults; these facts can impact their exposure to medications. Because metabolic systems are still developing in children, their ability to detoxify and excrete substances differs from that of adults. Children breathe more rapidly and take in more air in proportion to their body weight than do adults; since they breathe more air per pound of body weight than adults and because their respiratory systems are still developing, kids are prone to greater exposure to and adverse effects from inhaled substances.

Be sure to use care when giving any medicine to a child. Even the over-the-counter (OTC) medicines we buy are serious drugs. The following is advice for giving OTC medicine to your child, from the U.S. Food and Drug Administration (FDA) and the makers of OTC medicines:

1. **Always read and follow the label on your OTC medicine.** This is important for choosing and safely using *all* OTC medicines. Read the label every time *before* you give the medicine. Pay special attention to usage directions and warnings and be sure you understand how much medicine to give and when it can be taken again.
2. **Know the “active ingredient” in your child’s medicine.** This is what makes the medicine work and is listed at the top of the *Drug Facts* label. An active ingredient can treat more than one medical condition. For that reason, the same active ingredient can be found in various medicines that are used to treat different symptoms. As an example, a medicine for a cold and a medicine for a headache may each contain acetaminophen (Tylenol). So, if you’re treating a cold and a headache with two medicines and both have that same active ingredient, you would be giving double the correct dose. If you have any questions about your child’s medicines, check with your doctor, nurse, or pharmacist.
3. **Give the right medicine, in the right amount, to your child.** Not all medicines are right for a child. Medicines with the same brand name can be sold in different strengths, such as infant, child, and adult formulas. The amount and directions vary for children of different ages or weights. *Always* use the right medicine and follow the directions exactly. Never use more medicine than directed, even if your child seems sicker than the last time it was given.
4. **Talk to your doctor, pharmacist, or nurse to find out what mixes and what doesn’t.** Medicines, vitamins, supplements, foods, and beverages don’t always mix well with each other. Your healthcare professional can help.
5. **Use the dosing tool that comes with the medicine, or use a measuring spoon.** A typical kitchen spoon could hold the wrong amount of medicine since one kitchen spoon may hold nearly twice as much as another.
6. **Know the difference between a tablespoon (tbsp.) and a teaspoon (tsp.)** Don’t confuse them: a tablespoon holds three times as much as a teaspoon. On measuring tools, a teaspoon (tsp.) is equal to “5 cc” or “5 ml.”
7. **Know your child’s weight.** Directions on some OTC medicines are based on weight. *Never* guess the amount of medicine to give to your child or try to figure it out from the adult dose instructions. Follow age and weight guidelines. If the label says don’t give to children under a certain age or weight, don’t do it. Call your doctor. If a dose is not listed for your child’s age or weight, call your physician or other member of your healthcare team.
8. **Prevent a poison emergency by always using a child-resistant cap.** Re-lock the cap after each use. Be especially careful with any products that contain iron; they are the leading cause of poisoning deaths in young children.
9. **Store all medicines in a safe place.** Follow the "KEEP OUT OF REACH" warning. Many of today’s medicines are flavored to mask the taste of the medicine, or colorful or chewable, which is all the more reason to keep them out of the sight and reach of children. Kids may think that these products are candy. To prevent an overdose or poisoning emergency, store all medicines and vitamins in a safe place out of your child’s (and even your pet’s) sight and reach. If your child takes too much, call the Poison Center Hotline at **1-800-222-1222** (open 24 hours, 7 days a week).
10. **Check the medicine.** First, check the outside packaging for such things as cuts, slices, or tears. Then, before administering, check the label on the inside package to be sure you have the right medicine. Make sure the lid and seal are not broken.
11. If your child has a cold, flu, or chickenpox, **do not give your child any product with aspirin** or similar drugs called salicylates. Aspirin and other salicylates given to children with symptoms of cold, flu, or chickenpox can cause a rare but very serious condition called Reye syndrome. Instead of aspirin or other salicylates, you can give your child acetaminophen (ex-Tylenol) or ibuprofen (ex-Motrin).