

Acetaminophen Safety

Acetaminophen is the most commonly used pain reliever and fever reducer in the United States. It is sold under more than 50 brand names and used in more than 200 combination products for pain, colds, coughs, flu, and migraine headaches. Products include many children's preparations in liquid, tablet, and capsule form. Some common brand names of products that contain acetaminophen are Tylenol, Tempra, and Children's Triaminic Flu Cough & Fever. In 2008, the California Poison Control System reported 16,352 cases of suspected acetaminophen overdose.

How does acetaminophen work?

Acetaminophen blocks pain messages to the brain by stopping a chemical called prostaglandin, which causes pain and fever.

What are the dangerous side effects?

Acetaminophen is safe and effective if dosed and used appropriately. However, giving it to a child over a long period of time or in higher than recommended doses could cause internal bleeding and liver or kidney damage. Acetaminophen is the most common cause of drug-induced acute liver failure in children.

Who is at risk?

Children with chronic disease, especially liver problems or chronic under-nutrition, are at higher risk for acetaminophen toxicity. Children who are dehydrated are also at greater risk. While acetaminophen is generally safe for short-term use, the risk of overdose is still a concern. Parents and caregivers sometimes give more than one medicine containing acetaminophen to a sick child without knowing they are doing so, resulting in an overdose.

What causes acetaminophen toxicity in children?

Acetaminophen poisoning is a toxic reaction resulting from the ingestion of large doses of this drug. Some children may be at greater risk for acetaminophen poisoning than others because of the way their bodies process the drug.

What are the symptoms and signs of acetaminophen intoxication?

Symptoms and signs of acetaminophen poisoning include loss of appetite, nausea, vomiting and a vague feeling of body discomfort, followed by abdominal pain, liver enlargement and reduced production of urine. If untreated, acetaminophen poisoning may progress to liver failure.

Please note that a known acetaminophen overdose is an emergency situation requiring emergency department care and hospitalization. If the amount of acetaminophen taken is not known, do not wait until symptoms develop to seek medical help. Treatment must be given within 12 to 24 hours to be effective.

Tips for the safe use of acetaminophen

- Follow the instructions on the package when using acetaminophen.
- Shake liquid acetaminophen well before each use to mix the medication evenly.
- Pay attention to what the recommended dosage is for the child's weight (dosing by weight is more accurate than dosing by age), and whether the formulation you are using is for infants, children or adults. Do not give adult preparations to young children. Some products for adults may contain too much acetaminophen for a child. Infant formulations are three times more concentrated than acetaminophen made for children and should not be given to children.
- Do not give more than the maximum amount of acetaminophen, even if your child's pain or fever isn't getting better.
- Be sure you know how many hours to wait before giving another dose.
- Avoid giving children more than one product containing acetaminophen.
- Read the label of any medication you give to a child; find out what the active ingredients are. Sometimes acetaminophen is listed as APAP in the ingredients.
- Use the measuring device supplied with the medication, or ask your pharmacist for a product designed to administer medicine rather than using kitchen spoons.
- If you are not sure how much acetaminophen to give, or how to give it, ask your health care provider or pharmacist for help.
- Inform pharmacists that your child is taking acetaminophen when getting a new prescription medication.
- Avoid using acetaminophen for conditions other than fever or mild to moderate pain.

Resources

Protect your child from acetaminophen overdose, AAP News, September, 2009 <http://aapnews.aappublications.org/cgi/content/full/30/9/26-a>



California Childcare Health Program
UCSF School of Nursing
cchp.ucsf.edu
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