What is acetaminophen?

Acetaminophen is a pain-relieving (analgesic) and fever-treating (antipyretic) medication that can be obtained over-the-counter. Pharmaceutically it is a different kind of medication than other over-the-counter medications, such as ibuprofen and naproxen, which are also used to treat pain and fever. Acetaminophen is widely used for pediatric and adult fever and pain and comes in pill, liquid, injectable, and rectal suppository forms. Outside of the United States and Canada, acetaminophen is primarily known as “paracetamol” and is used for the same reasons.

Do other medications contain acetaminophen?

Acetaminophen is present in a very large number of over-the-counter and prescription medications. Over-the-counter medications used to treat generalized pain, arthritis, migraine headaches, sinus symptoms, cough and cold symptoms, allergies, fever, and flu symptoms, may contain varying amounts of acetaminophen. Additionally, prescription pain medications, such as Vicodin, Norco, Percocet, Tylenol #3, Fioricet, and Lortab all contain acetaminophen.

How much acetaminophen can I take?

Although the maximum daily dosage has become somewhat controversial in recent years, it is generally recommended to follow the dosing instructions on the package of medications purchased over-the-counter. For children, dosing for most medications is based on the child’s weight. The packaging may refer to dosing in terms of milligrams (mg) of medication per kilogram (kg) of a child’s weight. According to the Tylenol professional product monograph, “for adults and children 12 years of age and older, the recommended dose of acetaminophen is 650 to 1000mg every 4 to 6 hours as needed, not to exceed 4000mg in 24 hours… For children under 12 years of age, the recommended dose of acetaminophen is 10 to 15 mg/kg every 4 to 6 hours, not to exceed 5 doses (50 to 75 mg/kg) in 24 hours.” It should be noted that various concentrations of liquid acetaminophen for infants and children exist, so it is strongly recommended to read the dosing instructions very carefully and call your child’s doctor with any questions about acetaminophen dosing.
Acetaminophen (Tylenol, paracetamol, N-acetyl-para-aminophenol, APAP)

**Is acetaminophen dangerous?**
In appropriate dosing, such as is outlined on acetaminophen packaging, acetaminophen is one of the safest medications available, causing few side effects. However, when someone takes too much acetaminophen, it can cause severe medical problems. Acetaminophen overdose is a leading cause of liver failure in the United States and can lead to the need for liver transplant or in severe cases causes death.

**What happens if someone takes too much acetaminophen?**
In appropriate dosing, your body breaks down acetaminophen into chemicals that are primarily excreted in the urine. In an overdose, these methods of breaking down acetaminophen into non-toxic chemicals are overwhelmed, causing the build-up of a toxic product of acetaminophen called NAPQI. It is this chemical that causes severe liver injury.

Although most people that take too much acetaminophen will have some nausea or vomiting shortly after the overdose, some people will have no immediate symptoms. However, symptoms can develop 2 to 3 days later, at which time blood tests would reveal evidence of severe liver damage.

Acetaminophen overdose is best treated with a medication called n-acetylcysteine (NAC) if it is given within 8 hours of taking acetaminophen. However, NAC has been shown to be beneficial even after 8 hours. NAC has been shown to decrease the rates of liver transplantation and death among people with severe acetaminophen toxicity.

**What should I do if someone I know has taken too much acetaminophen?**
If you are concerned that you or someone you know may have overdosed on acetaminophen, you should immediately contact a poison center (toll free: 1-800-222-1222). Poison centers have specialists in overdoses that can discuss dosing with you and give you further recommendations, which may include going to the emergency department. It is generally not recommended to make someone vomit after an overdose.

**Are there any other safety facts I should know about acetaminophen?**
Keep acetaminophen and all other medication out of the reach of children. Before giving acetaminophen to children, carefully read the dosing instructions or contact the child’s physician for advice.

Speak with your doctor before taking acetaminophen if you have liver disease, kidney disease, or drink alcohol heavily.

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