

Healthy Living

Patient Information from the American Chiropractic Association

Beware of Acetaminophen Risks

Acetaminophen—the main ingredient in medications such as Tylenol®—is the most widely used pain reliever. While generally considered safe when taken occasionally and in small doses, acute overdoses and chronic consumption of acetaminophen can cause liver toxicity.

According to research, 50 percent of all acute liver failure in the United States is attributed to acetaminophen consumption.¹ While many of these cases result from an overdose, even “correct dosage” may cause liver damage, liver failure and death.¹ In the United States alone, approximately 56,000 liver injuries requiring emergency treatment, 26,000 hospitalizations and 458 deaths per year are attributed to acetaminophen consumption.² The Food and Drug Administration (FDA) is currently considering measures to decrease the number of cases of unintentional and intentional overdose leading to liver injury, including limiting the maximum adult daily dose in both prescription and over-the-counter medications and improving labeling.³

Initial signs and symptoms of acetaminophen toxicity are nausea and vomiting, so it’s hard to identify it immediately. In some cases, liver toxicity may develop without symptoms.⁴

Risks of Accidental Overdosing

One of the main problems with this popular medication is how easy it is to overdose unintentionally. In addition to being the primary ingredient in Tylenol, acetaminophen is also contained in almost 200 brand-name and generic products—from headache and backache pills to cold and flu remedies and sore-throat medications—most of which are available over the counter.

It’s not uncommon for a patient to take several over-the-counter medications—for pain and fever and then for a sore throat, cough and cold, multiplying the risk of overdosing. Combining prescription medications and over-the-counter medications containing acetaminophen also increases the risk. Inadvertent over-



dosing can also happen from Children’s Tylenol being given to children to relieve a fever over a period of several days.⁴

Fasting (such as not eating because of illness), alcohol consumption or genetic predisposition to liver problems also increases the risk of liver toxicity, although the patient may be taking the prescribed dose of the medication.

Avoiding Damage

To avoid liver damage from acetaminophen:

- Do not take more than 1 gram (1,000 mg) of acetaminophen at once.
- Do not exceed 4,000 mg of acetaminophen in 24 hours. (The FDA is considering reducing the adult maximum daily dose to 3,250 mg, and even further reducing the amount for chronic alcohol users.)³
- Always check to see if over-the-counter or prescription medications contain acetaminophen.
- For children, do not exceed 10-15 mg/kg/dose of acetaminophen, and do not exceed five doses or 2.6 grams in 24 hours.⁴

Drug-Free Pain Relief

Patients often rely on medications to treat acute and chronic pain, but they should always check with a health care provider first to see if safer options are available. Talk to your doctor of chiropractic about conservative, medication-free pain relief. Depending on your individual needs, your doctor of chiropractic will develop a program of care that may combine more than one type of treatment instead of using drugs and surgery. The treatment plan may include spinal manipulation, mobilization, or massage, as well as procedures such as electric stimulation, rehabilitative exercises, advice on nutrition, and suggestions for posture modification. Doctors of chiropractic are committed to wellness and avoiding the unnecessary use of medications. ■

Common Medications Containing Acetaminophen⁴

Prescription medications

- Vicodin
- Darvocet
- Percocet
- Endocet
- Roxicet
- Ultracet
- Midrin

Common over-the-counter medications

- Tylenol
- Children's Tylenol
- Tylenol PM
- Excedrin
- Excedrin PM
- Alka Seltzer Plus Cold and Flu
- Sudafed Cold and Sinus

These are just some of the many preparations containing acetaminophen on the market.

1. Larson AM, et al. Acetaminophen-induced acute liver failure: results of a United States multicenter, prospective study. *Hepatology* 2005;42:1364-1372.

Exceptional Risk Factors of Acetaminophen Poisoning⁵

- Fasting (which frequently occurs when patients are ill or in extreme pain)
- Dieting
- Alcohol consumption
- Mixing medications (Acetaminophen is an ingredient in many cold and flu remedies and pain medications.)
- AIDS
- Liver disease
- Malnutrition
- Anorexia
- Kidney disease

2. Nourjah P, Ahmad SR, Karwoski C, Willy M. Estimates of acetaminophen (Paracetamol)-associated overdoses in the United States. *Pharmacoepidemiol Drug Saf* 2006 Jun;15(6):398-405.
3. Recommendations for FDA Interventions to Decrease the Occurrence of Acetaminophen Hepatotoxicity Prepared for Janet Woodcock, M.D. Acting Director, Center for Drug Evaluation and Research by The Acetaminophen Hepatotoxicity Working Group. Center for Drug Evaluation and Research Food and Drug Administration. Department of Health and Human Services. February 26, 2008. www.fda.gov.
4. Dangers of Too Much Acetaminophen! Minnesota Poison Control System. www.mnpoison.org.
5. Morgan B. Poison in the Medicine Cabinet. *ACA News* 2009 Sept;5(9):18.



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For more information on prevention and wellness, or to find a doctor of chiropractic near you, visit ACA's website at www.acatoday.org/patients.