

Nearly 50 Percent of Acute Liver Failure Due to Acetaminophen Overdose

A recent study published in the December 2005 edition of *Hepatology*, entitled "Acetaminophen-Induced Acute Liver Failure: Results of a United States Multicenter, Prospective Study," examined acetaminophen-induced acute liver failure (ALF) at 27 tertiary care centers in the United States. The study concluded that of the 362 consecutive patients who met the A-T criteria between 1998 and 2003, 275 (42 percent) of the ALF cases resulted from acetaminophen liver injury.

Based on the research conducted, it was also concluded that cases of acetaminophen poisoning are on the rise; the proportion of acute liver failure due to acetaminophen poisonings went from 28 percent in 1998 to 51 percent in 2003. That said, it's important to note that in 131 (48 percent) of the cases studied, ALF resulted from **unintentional acetaminophen overdose**. Of those patients who overdosed on acetaminophen accidentally, 38 percent took two or more acetaminophen preparations simultaneously, and 63 percent used narcotic-containing compounds. Additionally, 51 percent of those patients reported taking acetaminophen (and/or other painkillers) for acute or chronic pain syndromes.

Researchers found that the median dose ingested was 24g (equivalent to 40 extra-strength tablets) and that patients who have concomitant depression, chronic pain, alcohol or narcotic use, and/or take several preparations simultaneously are more susceptible to acetaminophen hepatotoxicity.

FLRx Comment: The study above illustrates that it's important to remind patients that acetaminophen can be found in various over-the-counter medications (e.g., NyQuil[®], ThermFlu[®], Alka-Seltzer Plus Cold Medicines[®], Tylenol Cold and Flu Severe[®], M do[®] (Teen Formula) and Excedrin[®]), as well as in some prescription medications (e.g., Vicodin[®] and Percocet[®]). Additionally, patients need to know how important it is to read medication labels, as well as understand and adhere to the maximum daily dose. The chart below indicates how much acetaminophen is in some of the over-the-counter medications currently available.

Medication	Dosage	Amount of Acetaminophen	Maximum Dose for 24 hr. Period
Tylenol Extra Strength	1 tablet	600 milligrams	8 tablets
Tylenol Arthritis Strength	1 tablet	650 milligrams	6 tablets
Mido (Teen Formula)	1 tablet	500 milligrams	8 tablets
NyQuil (Cold and Flu)	1 adult dose	500 milligrams	8 doses
Tylenol (Cold and Flu Severe)	1 adult dose	1,000 milligrams	4 doses

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