For Tylenol, dose and overdose aren’t that different

By ACSH Staff — November 30, 2011

It’s not widely known, but acetaminophen (Tylenol and others) is a significant cause of liver damage when the recommended dosage is exceeded. And just because you’re spreading your dosage of acetaminophen over the course of a day doesn’t mean you’re not at risk for an overdose. In fact, you may be at greater risk of a serious or even fatal overdose than someone who swallows the same amount all at once.

Scientists have just reported [1] in the British Journal of Clinical Pharmacology that patients who ingested more than 4,000 mg of acetaminophen over the course of a day were over 30 percent more likely to die from liver damage than were people who overdosed by swallowing the same number of pills all at once.

Researchers from the University of Edinburgh in Scotland analyzed over 15 years worth of data from 663 patients who had been admitted to the hospital with acetaminophen-induced severe liver toxicity. There was a significantly higher mortality rate among those overdose patients who had staggered their dosage than among those who had not. Both groups faced a significant risk of liver damage or death.

But perhaps what’s especially disconcerting about these findings is that the maximum daily dosage printed on the side of a bottle of acetaminophen is 4,000 mg (eight tablets of extra-strength Tylenol, for example). ACSH’s Dr. Gilbert Ross was alarmed by how closely that maximum dosage approaches the level of overdose. Acetaminophen overdose is the leading cause of acute liver failure in Europe and North America, and nearly half of those cases are associated with accidental overdose the rest arise from an intentional attempt at self-harm. The latest findings lead Dr. Ross to wonder whether the recommended maximum daily dosage of the drug is too high. For a person in pain, he points out, consuming enough acetaminophen for an overdose would be all too easy, especially since the same substance is present in numerous over-the-counter remedies and narcotic prescription combinations such as Percocet.

There is an effective antidote for acetaminophen poisoning called acetylcysteine, ACSH’s Dr. Josh Bloom notes, but it’s important to receive it as soon as possible. It won’t reverse liver damage, but it can help prevent additional damage.