

How to Protect Your Liver from Acetaminophen

By Christina Johnson | June 29, 2018

More than 1,000 medications have been identified as being potentially toxic to the liver. But there is one medication that causes more cases of [acute liver injury](#) than any other in the U.S., and it is likely in your medicine cabinet. The drug is acetaminophen, the analgesic and fever reducer found in Tylenol, NyQuil and more than 600 over-the-counter and prescription medications.

“Approximately 30 to 50 percent of hospitalizations from acetaminophen come from unintentional overdoses,” said Jeffrey Yin, PharmD, a pharmacist at UC San Diego Health who works with patients with liver disease.

The problem is the medication’s ubiquity, he said. Cold, flu and allergy medications, sleep aides, as well as medications for headaches, arthritis and pain, may contain acetaminophen. [The Liver Foundation](#) [↗](#) lists acetaminophen as the most common drug ingredient in the U.S.



“Because it is embedded in so many products, it is easy for people to accidentally double-

e-up on acetaminophen-containing products,” Yin said. Liquid medications also pose an

opportunity for accidental overdose, as people may make a mistake measuring out a dose or simply take a swig.

For people who do not have chronic liver disease and do not drink three or more alcoholic beverages a day, the recommended oral dose of acetaminophen is [660 to 1,000 mg every four to six hours](#) [↗](#), not to exceed three grams per day.

To appreciate how easy it is to exceed the safe limit, consider that one extra strength Tylenol tablet contains 500 mg of acetaminophen. Take two tablets at a single dose three times a day and you are at the maximum recommended dose. If you then inadvertently consume an acetaminophen-containing allergy medication or cold medication in addition, you risk damaging your liver, Yin said.

The key is to be aware of how much acetaminophen you are consuming. Yin recommends that consumers look at all the medications they are taking, and tally up the total amount of acetaminophen consumed on an average daily basis to make sure the total dose is under the three-gram-a-day limit.

It is better to err on the side of caution. Yin recommends looking for opportunities to reduce drug intake when possible. "Avoid taking combination products, if you don't have all the symptoms it is intended to treat," he said. For example, if a cold or flu product is meant to treat fevers, runny noses and congestion, but you only have a runny nose, choose a product that only treats the runny nose, rather than the combination product.

"I have patients who take Tylenol PM to help them sleep even though they have no pain issues," Yin said. "They are consuming acetaminophen for no therapeutic benefit. I recommend opting instead for an acetaminophen-free sleep aide."

Drinking alcoholic beverages should also be avoided. "People who drink even a moderate amount should talk with their doctor before taking acetaminophen," Yin said. "Alcohol and acetaminophen can be a dangerous combination."

Beyond acetaminophen and alcohol, there are other potentially liver-injuring drugs and supplements that should be used with caution, including:

- → Certain antibiotics, such as rifampin for tuberculosis
- → Psychedelic ("magic") mushrooms, such as those containing psilocybin
- → Herbal products, notably St. John's Wort and kava kava

"I have patients who want to take herbal products and think they are safer than medications," Yin said. "But this is not always true. Plants produce many chemicals that interact in ways we don't understand in the body. A medication is formulated to contain one compound at a standardized dose, making its efficacy and safety more predictable."

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