Mixing alcohol and acetaminophen? How can I reduce my risk for side effects? [1]

Dear Alice,

I have been taking OTC cough/cold/flu preps for about a week. These all contain acetaminophen with the subsequent warnings against using if one imbibes due to possible liver damage. Is there a period of time I should wait (I'm better now) after I stop using the OTCs before I can resume enjoying my "more than 3 alcoholic beverages" per day to allow the acetaminophen to metabolize?

Answer

Dear Reader,

It's great that you're reading the warning labels of your over-the-counter (OTC) cold/flu medication in detail! Heeding the instructions and warnings of any OTC or prescription medication is the way to go, and acetaminophen is no exception. Heavy or chronic alcohol consumption can exacerbate the toxic effects of acetaminophen and may lead to alcohol-acetaminophen-induced liver damage and potentially acute liver failure. While you note the "more than three alcoholic beverages per day" message on the label, it's key to point out that consuming more than three standard drinks per day [2] is above the recommended daily limit for men and women. How efficiently your body metabolizes both these substances (and thus, how much time you may want to wait between ingesting one after the other) depends on personal factors (more on these later on), but there are plenty of strategies for safe acetaminophen use and alcohol consumption.
As you may know, acetaminophen is a versatile drug used primarily for pain and fever relief. It eases mild to moderate pain such as headaches, muscle aches, toothaches, cold/flu-related aches, and menstrual (period) cramps. Though it's commonly used and available OTC, excess acetaminophen on its own may cause liver damage. The risk of the damage depends on the amount consumed, the individual's body, and any other drugs, alcohol, or supplements taken in conjunction with acetaminophen. The general guidelines for adults are to take between no more than 325 to 650 milligrams (mg) by mouth every four to six hours. It's recommended to take the lowest necessary dose for pain relief and to not take more than 4000 mg of acetaminophen per day. Additionally, guidelines suggest not taking it if you drink three or more alcoholic drinks a day, but you may want to consult a health care provider for custom recommendations. Too much acetaminophen in the body may result in these overdose symptoms:

- Nausea
- Vomiting
- Loss of appetite
- Sweating
- Extreme tiredness
- Unusual bruising or bleeding
- Upper right stomach pain
- Yellowing skin or eyes
- Flu-like symptoms

List adapted from MedlinePlus [3].

Drinking alcohol while taking acetaminophen may compromise your body's ability to metabolize the latter. When the liver breaks down acetaminophen, it increases the level of toxic metabolites in the body. Chronic drinking impacts the body's ability to get rid of these metabolites, so their increased presence may lead to liver damage. Additionally, one of the proteins responsible for breaking down acetaminophen is also responsible for breaking down alcohol. Excess alcohol or acetaminophen results in excess proteins, which also contribute to liver damage. Heavy drinking in conjunction with acetaminophen use may lead to acetaminophen-induced liver damage (a form of hepatotoxicity) or even acute liver failure.

To prevent your liver from working overtime, it's a safe and smart idea to know how long it roughly takes your liver to process these substances. Your metabolism depends on a host of factors: age, weight, genetics, diet, time of day, environment, dose ingested, and gender are just a few. As a general rule for alcohol, it takes one hour to break down one ounce of alcohol (this converter [4] helps determine how many standard drinks are in your glass of wine or bottle of beer), and it's recommended to keep weekly alcoholic consumption to 14 standard drinks or less for men and 7 standard drinks or less for women. As for acetaminophen, it has a half-life (the time it takes for the amount of drug in the body to be reduced by one-half) of two to three hours, which means it's eliminated from the body pretty quickly. However, since how long it takes for it be out of your system varies by person, there are some tips for safe acetaminophen use:

- Follow the label or prescription instructions for dosage amounts and timing of doses.
- Try not to take more acetaminophen than recommended or for longer than needed, even if the recommended dose doesn't make you feel better.
- Avoid taking multiple medications with acetaminophen at the same time.
• Consult a health care provider if you’re concerned about possible interactions between acetaminophen and other medications you take.
• Try keeping alcoholic drinks to a max of two a day for men and one a day for women when taking acetaminophen, or avoid alcohol entirely while taking acetaminophen.
• Avoid taking acetaminophen (or consult a health care provider) if you have a pre-existing liver condition or are a moderate or heavy drinker.

List adapted from the Food and Drug Administration [5] and Harvard Health Publishing [6].

And lastly, as you are interested in taking precautions to safeguard your liver, take a trip over to How do I drink in moderation? [7] in the Go Ask Alice! archives for more information on how to drink in a smart, responsible way. Hopefully these tips will help you take it easy on your liver!

Cheers,

Alice!

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