PCSS Medications for Alcohol Use Disorder — Providers Clinical Support System

Understanding Alcohol Tolerance

What is alcohol tolerance?

Alcohol tolerance happens when your body gets used to alcohol over time. The same number of drinks no longer produces the same effect, so you may drink more to feel intoxicated. This may seem harmless, but it actually raises your health and safety risks.[1,2]

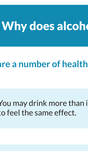
Alcohol tolerance develops in **three** ways:

1 Metabolic tolerance



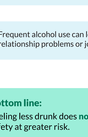
Your liver gets better at breaking down alcohol with repeated exposure.
This causes alcohol to clear out of your bloodstream faster. As a result, the effects of alcohol may feel less intense.

2 Functional (brain) tolerance



Your brain adapts to alcohol's calming and sedating effects.
You might seem coordinated and sober on the outside, but your blood alcohol concentration (BAC) can still be just as high.

3 Environmental tolerance



Your surroundings play a role.
Drinking in a familiar place (your usual bar, your home) may make you feel less drunk, while drinking somewhere new can make the same amount of alcohol feel stronger.[2]

Why does alcohol tolerance matter?

There are a number of health and safety risks due to increased alcohol tolerance[2,3]:

- You may drink more than intended to feel the same effect.
- Drinking more increases risks to your liver, heart, brain, and safety.
- Frequent alcohol use can lead to relationship problems or job loss.



- Your reaction time, judgment, and coordination are still affected. This puts you at risk of hurting yourself or others, even if you feel "okay".
- You might not realize how impaired you are. This may lead to serious legal, financial, and professional consequences, such as DUIs or loss of a driver's license.[4]

Bottom line:
Feeling less drunk does not mean you are less impaired. High tolerance can actually put your health and safety at greater risk.

Learn more about the short- and long-term risks of unhealthy alcohol with the PCSS-MAUD factsheet on standard drink sizes and guidelines.

What's the difference between tolerance, physical dependence, and alcohol use disorder?

Alcohol tolerance is a key warning sign, but it is not the same as addiction:

Tolerance



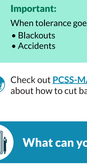
The same amount of alcohol causes fewer noticeable effects, leading a person to need more alcohol to feel intoxicated.

Physical dependence



The body adapts to depend on alcohol and may experience withdrawal* symptoms when not drinking.

Alcohol use disorder (AUD)



Frequent and/or heavy alcohol use can lead to AUD, where a person struggles to control their drinking despite negative consequences. AUD can be mild, moderate, or severe. Tolerance and withdrawal are two major indicators that someone may be developing or already has AUD.[4,5]

*Alcohol withdrawal happens when a person who drinks heavily stops or cuts back suddenly. Symptoms can be mild (sweating, anxiety, headache) to severe (seizures, significant confusion) and life-threatening.

What does BAC have to do with alcohol tolerance?

BAC measures the percentage of alcohol in your bloodstream. It is the standard measure of impairment. Someone with a high tolerance may feel less intoxicated at a given BAC, but their actual level of impairment — and risk of harm — is just as high.[4]

Factors that affect individual BAC and alcohol tolerance[6,7]

Liver function

When liver function is impaired, alcohol may remain in the bloodstream longer, leading to a higher BAC and longer-lasting effects.

Family history of AUD

A family history of AUD raises a person's genetic risk for developing tolerance, high-risk drinking patterns, and health issues related to alcohol.

Medications

Some medications can impact the central nervous system. They may also interfere with how alcohol is processed. This can cause dangerous interactions that increase impairment.

Body size and composition

Bigger people or those with more muscle usually have more body water. This extra water dilutes alcohol, leading to a lower BAC.

Drinking speed

Drinking alcohol quickly can make your BAC rise quickly. This happens because the liver can only process a limited amount of alcohol at a time.

Understanding these factors can help you make more informed decisions about drinking.

Can alcohol tolerance be reduced?

Yes. Even a short break from alcohol can begin to lower your tolerance. **Fully reversing functional (brain) tolerance requires complete abstinence,** since even small amounts of alcohol maintain the brain's adapted state.[8]

Important:
When tolerance goes down, going back to old drinking levels can raise the risk of:

- Blackouts
- Accidents
- Injuries
- Alcohol poisoning

Check out PCSS-MAUD's guide on strategies to reduce the risks and harms of alcohol use to learn more about how to cut back and reduce the risks of alcohol use.

What can you do?

- Reduce how much and how often you drink.
- Track your drinking patterns to identify changes.
- Avoid mixing alcohol with medications or other substances.
- Talk to a healthcare provider about your concerns. Your healthcare provider can review your symptoms, discuss your drinking pattern, and help you decide on the best course of action.
- Find support. If you or someone you know is seeking support, FindTreatment.gov can help you locate a treatment provider in your area.
  - Learn more about options for treating AUD or at-risk drinking with these resources:
    - Recovery Groups Resource
    - Should I Start a Medication to Help With My Drinking?

Key takeaways

- Alcohol tolerance means needing to drink more alcohol to feel the same effects.
- Feeling less intoxicated does not mean you are less impaired.
- Higher tolerance often leads to increased drinking and greater health and safety risks.
- Tolerance and withdrawal can be warning signs of AUD.
- Tolerance can be reduced with cutting back or abstinence from alcohol.
- Help and treatment options are available and effective. If you are concerned about your drinking, talk with your healthcare provider.

References

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