

# Alcohol Use After Traumatic Brain Injury

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TBI Factsheet

This factsheet describes negative effects that may occur from alcohol use after a TBI. See pages 3 & 4 for suggestions on how to reduce or stop drinking.

## Introduction

Alcohol and traumatic brain injury (TBI) are closely related. Up to 50% of adults with TBI were drinking more alcohol than is recommended before they were injured. People who were over age 60 when they had their TBI were less likely to drink too much before their injury, but those who did had worse outcomes. Although many people initially drink less after a TBI, starting to drink again increases their chances of having worse outcomes. By 2 years after injury, we find that more than 40% start drinking again.

After a TBI, many people are more sensitive to alcohol. Drinking raises their risk of getting injured again. It also makes cognitive (thinking) problems worse and increases the risk of emotional problems such as depression. Drinking can also get in the way of TBI recovery. For these reasons, doctors urge people with TBI not to drink. Not drinking can prevent further injury to the brain and promote healing.

## Facts about TBI and alcohol

### Alcohol and TBI recovery

- TBI recovery goes on for a lot longer than we used to think was possible. Most people see improvements for many years after injury.
- Drinking can slow down or stop TBI recovery.
- Not drinking gives the brain the best chance to heal.
- People's lives often continue to get better many years after TBI. Not drinking can increase the chance of improvement.



The Traumatic Brain Injury Model System (TBIMS) Program is sponsored by the National Institute on Disability, Independent Living, and Rehabilitation Research, Administration for Community Living, U.S. Department of Health and Human Services. (See <http://www.msktc.org/tbi/model-system-centers> for more information.)

### Alcohol, brain injury, and seizures

- People with TBI are at risk for seizures.
- Drinking may increase the risk of having seizures and can trigger seizures.
- Not drinking may reduce the risk of seizures.

### Alcohol and the risk of having another TBI

- People who have had a TBI are at high risk of having another one.
- People who have an alcohol-related TBI are more than four times as likely to have another TBI. This may be because both TBI and alcohol can cause problems with vision, coordination, and balance.
- Not drinking can reduce the risk of having another TBI.

## Alcohol and cognitive function

- Alcohol and TBI both affect cognitive skills like memory and flexible thinking (this is thinking about things in a different way).
- Alcohol may make some of the cognitive problems caused by TBI worse.
- Alcohol may affect people with TBI more than it did before their TBI.
- The negative cognitive effects of alcohol can last from days to weeks after drinking stops.
- Not drinking can keep your cognitive abilities at their best and help you stay sharp and focused.



## Alcohol and mood

- Depression is about 8 times more common in the first year after TBI than in the general population.
- Using alcohol can cause depression or make it worse.
- Alcohol can make anti-depressant medicines less effective. People who take these medicines should not drink.
- One way to improve feelings of sadness or depression after TBI is to stop or cut down on drinking.

## Alcohol and sexuality

- A low sex drive is the most common effect of TBI on sexuality.
- Alcohol causes low levels of testosterone in men.
- Alcohol may cause problems with erections and orgasms in men.
- Alcohol reduces sexual satisfaction in men and women.
- Avoiding alcohol improves sexual ability and activity in men and women.



## How much alcohol is “safe” after TBI?

After TBI, the brain is more sensitive to alcohol. This means that even one drink may not be safe. This is especially true when you need to do things that require balance, coordination, and quick reactions, such as walking on uneven surfaces, riding a bike, or driving a car. Thus, no amount of alcohol is totally safe after TBI.

## Alcohol and medicines

Drinking after TBI may be dangerous if you take prescription medicines. Alcohol can make some medicines less effective. It can also increase the effects of some medicines; this may lead to overdose or death. Drinking alcohol with medicines for anxiety or pain is risky because of the potential for multiplying the effects of both.

## What about using other drugs?

Other drugs are also likely to harm the brain and how it functions. Drugs like cocaine, methamphetamine, or heroin are both addictive and illegal—they can harm your brain and your recovery. Misusing prescription opioids like Percocet, Oxycodone, or Oxycontin can be deadly. Misusing other prescribed medications like Ativan, Valium, or Xanax can also harm you.

Cannabis (marijuana or pot) use deserves special attention because it's legal in many states to use pot for medical and nonmedical reasons. People with TBI may use cannabis to ease stress and anxiety or to help them sleep. But cannabis has some downsides. Using cannabis on occasion may cause cognitive issues that last at least 1 day. Routine use may cause major problems with attention, learning, memory, thinking, or problem-solving. These issues can last up to 1 month after you stop using. People who use cannabis are at greater risk of paranoia, hallucinations, and delusions. They are also at risk for depression and losing their motivation to do things. Some people say cannabis helps their PTSD symptoms; others say it makes them worse. Little research exists on cannabis use after TBI or on the effects of THC versus CBD. Right now, the risks of cannabis use seem worse than the benefits for people with TBI who are in recovery.



If you use multiple drugs like alcohol and pot, or alcohol and pain pills, you have a high risk of addiction and overdose. Many people have died from using alcohol and pain pills together, or alcohol and anxiety medicines. Talk to your doctor if you drink and take prescription medicines.

### What should you do?

Using alcohol or other drugs after a TBI is risky. Some people keep drinking or using drugs after a TBI and don't want to stop. Others know they should stop or reduce their alcohol or drug use, but they don't know how; they may have tried in the past and failed.

If you want to stop using alcohol or other drugs, you have many options. Some people benefit from self-help groups such as Alcoholics Anonymous (AA). Others get help from doctors, psychologists, or counselors with experience treating addiction. Most people who stop using alcohol or drugs do so on their own. Don't doubt your ability to change.

### Ways to change, cut down, or stop drinking

Some key steps to change, cut down, or stop drinking are as follows:

- Find people who support you in changing your drinking.
- Set a specific goal.
- Spell out how you will meet your goal.
- Figure out what people, places, things or feelings trigger drinking. Then figure out ways to cope with those triggers ahead of time.
- Reward yourself for sticking to your plan and meeting your goals.
- Have a back-up plan if your first plan doesn't work.



If you have questions or concerns about your drinking, information and help are available:

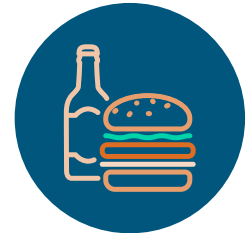
- Take a confidential, online drinking screening: <http://www.alcoholscreening.org/>.
- Talk to your doctor about your alcohol use. They can give you referrals for treatment. They can also prescribe medicines to help you prevent relapse or reduce alcohol cravings. One such medicine is naltrexone (Revia).
- Psychologists or counselors in your TBI rehabilitation program can help you find treatment that is right for you.

- AA has helped millions of people. You can find meetings in most towns and cities (<http://www.aa.org/>).
- Moderation Management (<http://www.moderation.org/>) and SMART Recovery (<http://www.smartrecovery.org/>) are alternatives to AA that do not use the 12-step model.
- The Substance Abuse and Mental Health Services Administration (SAMHSA) has a confidential treatment services locator website to help you find a reputable treatment facility near you (<http://findtreatment.samhsa.gov/>; 800-662-4357).

## Reduce the harm from drinking

If you don't want to stop drinking, you can still reduce the harms of drinking:

- Eat food and drink water before you drink alcohol. This will help slow the effects of the alcohol. If you have a sharp rise in your blood alcohol level, it can lead to nausea, vomiting, falls, blackouts, and alcohol poisoning.
- Have a plan so you don't drink and drive. Have someone who isn't drinking take you home. Plan to spend the night where you are drinking or drink only at home.
- To avoid dangerous spikes in blood alcohol level, drink beer rather than hard liquor. You can also mix hard liquor with water instead of sweet, bubbly drinks.
- Sip your drinks slowly (no more than one per hour). Drinking too fast can make the pleasant feelings from alcohol go away.
- Drinking in bars makes some people drink more slowly because of the cost. If you go to a bar, don't drink and drive.
- Take vitamins, like B1 (thiamine), B12, and folate, to reduce the chance of brain damage from drinking.
- Have no more than two drinks per day. Cut back on certain days of the week, such as weeknights.
- Take a drinking "holiday" (days or weeks when you don't drink at all). This may remind you of some of the benefits of being sober.



## How family members can help

You can't force another person to stop drinking or using drugs. But you can support them. Going to Al-Anon meetings is a good way to support a friend or a family member of someone who has problems with alcohol or drugs; it can also promote change. You can also join with other family or friends to tell your loved one about your concerns. The book *Get Your Loved One Sober* (see the Resources section) has an effective approach. Family members can learn how to talk to and respond to their loved one in ways that reward being sober but don't enable drinking-related behavior. These methods have been shown to increase the chance that people with alcohol problems will reduce their drinking and get treatment even more than Al-Anon or interventions.



## Resources

Brown, J., Corrigan, J., & Hammer, P. (2011). TBI and substance abuse often go hand-in-hand. Brainline Webcast #4, Defense and Veterans Brain Injury Center.

[http://www.brainline.org/webcasts/4-TBI\\_and\\_Substance\\_Abuse/index.html](http://www.brainline.org/webcasts/4-TBI_and_Substance_Abuse/index.html)

Corrigan, J., & Lamb-Hart, G. (2004). *Alcohol, other drugs, and brain injury*. Columbus, Ohio: Ohio Valley Center for Brain Injury Prevention and Rehabilitation, Ohio State University Department of Physical Medicine and Rehabilitation. Brain Injury Association. <http://www.biausa.org/elements/BIAM/2004/substanceabuse.pdf>

Meyers, R. J., & Wolfe, B. L. (2004). *Get your loved one sober: Alternatives to nagging, pleading, and threatening*. Center City, MN: Hazelden Publications.

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Bombardier, C. H., & Turner, A. (2009). Alcohol and traumatic disability. In R. Frank & T. Elliott (Eds.), *The handbook of rehabilitation psychology* (2nd ed.) Washington, DC: American Psychological Association Press.

Corrigan J. D., Adams, R. S., & Dams-O'Connor, K. (2012). At-risk substance use and substance use disorders among persons with traumatic brain injury. In: N. D. Zasler, D. I. Katz, R. D. Zafonte, D. B. Arciniegas, M. Ross Bullock, & J. S. Kreutzer (Eds.), *Brain injury medicine: Principles and practice* (3rd ed.). New York: Demos Medical Publishing.

## Authorship

*Alcohol Use After Traumatic Brain Injury* was developed by Charles H. Bombardier, PhD, in collaboration with the Model Systems Knowledge Translation Center.

## Factsheet Update

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