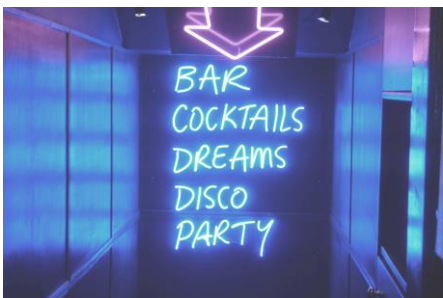


Can alcohol cause seizures?

The relationship between alcohol, epilepsy and seizures is complex and some people are more vulnerable to the effects of alcohol than others. Seizures related to alcohol misuse are more common than with any other form of substance. Alcohol has been known to trigger or worsen seizures when associated with alcoholism or 'binge' drinking. Most alcohol related seizures occur with:

- Alcohol withdrawal – This is when seizures occur within the first 6-48 hours after a chronic drinker suddenly stops drinking alcohol. If these seizures happen often and the alcohol abuse has occurred over a long time, damage to brain tissue may happen. This can lead to developing epilepsy. Note: If you have an alcohol problem and want to change, don't do it alone. Detox and treatment for alcoholism usually requires medical supervision and a lot of support. Plan it with a qualified professional or rehab centre to avoid withdrawal seizures.
- Alcohol toxicity – This is less common but happens when someone has ingested a large amount of alcohol in a short period of time and the concentration in the bloodstream is poisonous to the body.
- Excessive fluid and metabolic changes in the body – Drinking large amounts of alcohol over a short period of time will create an imbalance of fluids and electrolytes in the body, causing a dehydrating effect, particularly with a substance like beer.
- Trauma – Injuries may occur from accidents or falls while the person is intoxicated.
- Vitamin or nutritional deficiencies – Chronic alcohol abuse will affect the absorption of nutrients and is often associated with unhealthy diet.
- Not taking medications – Chronic or binge drinking can result in poor memory, missed medications and lack of routine. Not taking antiepileptic medications can cause prolonged or more severe seizures

Alcohol can affect antiepileptic medications



- People taking antiepileptic medications are likely to be more sensitive to the effects of alcohol. Alcohol can interfere with the uptake of medications and therefore increase the chance of seizures. Some antiepileptic medications can enhance the effects of alcohol and people can feel intoxicated after drinking only a small amount.
- Missing a dose, taking extra medication or altering the time of taking your antiepileptic medications before drinking alcohol will not change this reaction and may cause additional unwanted effects or seizures.

Can people with epilepsy drink alcohol?

Opinions vary. Some medical professionals recommend that alcohol should be avoided if taking antiepileptic medications, while others say a modest amount will do no harm.

Several studies have shown that small to modest amounts of alcohol do not increase seizure frequency or drastically change the blood levels of antiepileptic medications. The effects of alcohol differ greatly from person to person but adults with epilepsy should be able to drink alcohol in small amounts (1-2 drinks per occasion, no more than 3-6 drinks per week).

There are times when it is riskier to drink alcohol; such as, if you are inclined to forget your medications, you have difficulty limiting your alcohol intake or have had alcohol related seizures in the past. If you've had a reaction or increase in seizures in relation to alcohol in the past, then it is best to avoid it.

It is important to talk to a doctor about the possible effects of alcohol on your seizures and antiepileptic medications. Some types of epilepsy may be more sensitive to alcohol ingestion.

Mixing alcohol with other substances

All too often, alcohol is mixed with other illicit substances or medication. Many combinations can significantly increase the risk of overdosing and enhancing the effects of the substances. There is little research regarding how this affects someone with epilepsy or their medications, but the reality is, mixing alcohol with other drugs and medications is not a good choice and can potentially be very harmful.

Alcohol and high energy drinks

An "energy drink" generally means a non-alcoholic drink that can contain caffeine, taurine (an amino acid), guarana and herbal supplements, such as ginkgo and ginseng. Health risks associated with energy drinks are mainly related to their high caffeine content. Excessive consumption of energy drinks may cause caffeine intoxication, which can cause rapid heart rate, vomiting, cardiac arrhythmias, seizures, and in extreme cases, death.

Mixing alcohol with energy drinks can be a dangerous combination. Energy drinks can mask the effects of alcohol, so people can end up drinking more alcohol than they might normally. The combination has also been associated with increased risk-taking behaviours.

Mixing alcohol and energy drinks also means more sugar and caffeine is consumed than drinking alcohol by itself. This could also increase physical and psychological side effects; such as heart palpitations, problems sleeping, feeling tense, agitated or possibly cause anxiety and panic attacks. It is also likely the risk of seizures is higher with this combination.



What is moderate drinking?

The meaning of drinking alcohol in moderation can vary from person to person, as does the distinction between 'social' drinking and 'problem' drinking.

The National Health and Medical Research Council (NHMRC) suggests for healthy men and women, drinking no more than two standard drinks on any day (reduces the lifetime risk of harm from alcohol-related disease or injury). This recommendation is for healthy individuals. Although most complications with seizures and alcohol generally occur with chronic or binge drinking, having a chronic health condition such as epilepsy can alter what is considered "safe" drinking.

A standard drink is 250ml of full-strength beer, or 100ml wine, or 30ml spirits.

Why people with epilepsy need to be cautious about alcohol:

1. Alcohol can mix poorly with antiepileptic medications, preventing them from reaching the necessary levels in the bloodstream to control seizures.
2. Consuming large amounts of alcohol can trigger seizures.
3. Alcohol can create an imbalance of fluid and electrolytes within the body, causing dehydration.
4. Alcohol consumption is often associated with late nights, sleep deprivation, missed meals and forgotten medications, all of which can trigger seizures.
5. The effects of alcohol are enhanced when combined with antiepileptic medication, meaning you feel "drunk" faster.

Drinking alcohol

If you like to have a drink sometimes, perhaps:

- Speak to your neurologist or GP
- Limit your intake
- Drink slowly
- Drink low alcohol drinks or "mocktails"
- Drink non-alcoholic drinks in-between the alcoholic drinks
- Avoid bingeing, or drinking large amounts of alcohol at once
- Don't make it an all-nighter
- If alcohol makes you feel unwell, you've had seizures in the past related to alcohol, or feel like you may have a seizure, it is best to avoid it altogether.



Further information:

[Alcohol and drugs](#)

[Understanding drug interactions](#)



References

- Alcohol and Seizures: <https://www.alcohol.org/effects/epilepsy-and-seizures/> Accessed April 2020
- Alcohol and energy drinks: <https://www.drinkaware.co.uk/check-the-facts/health-effects-of-alcohol/effects-on-the-body/alcohol-energy-drinks> Accessed April 2020
- Harvard Health Publishing. Alcohol withdrawal: https://www.health.harvard.edu/a_to_z/alcohol-withdrawal-a-to-z Accessed April 2020
- Iyadurai SJ, Chung SS. (2007) New-onset seizures in adults: possible association with consumption of popular energy drinks. *Epilepsy Behavior*. May;10(3):504-8. Epub 2007 Mar 8.
- NHMRC Advice, alcohol <https://www.nhmrc.gov.au/health-advice/alcohol> Accessed April 2020
- NHMRC Guidelines, alcohol <http://www.nhmrc.gov.au/health-topics/alcohol-guidelines> Accessed April 2020
- NHMRC Standard drinks, alcohol https://www.nhmrc.gov.au/_files_nhmrc/file/your_health/healthy/alcohol/std-drinks.pdf Accessed April 2020
- NHS: Warnings issued over energy drinks <http://www.nhs.uk/news/2014/10october/Pages/Warnings-issued-over-energy-drink-risks.aspx>
- Wolk BJ, Ganetsky M, Babu KM. (2012) Toxicity of energy drinks. *Current Opinion Pediatrics*. Apr;24(2):243-51