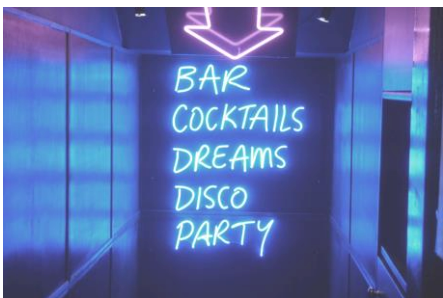


Can alcohol cause seizures?

The relationship between alcohol 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 are associated with:

- Alcohol withdrawal – This is when seizures occur within the first 6–48 hours after a heavy drinker suddenly stops drinking alcohol. If these seizures happen often and alcohol abuse has happened over a long time, damage to brain tissue may happen, which can lead to developing epilepsy.
 - Note: If you have an alcohol problem and want to change, 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 can happen when a large amount of alcohol is ingested (binge) in a short period of time and the alcohol 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 – Long term heavy drinking will affect the absorption of nutrients and is often associated with unhealthy diet.
- Not taking medications – Long term heavy drinking can result in poor memory, missed medications and lack of routine. Not taking antiseizure medication can cause more frequent and severe seizures



Alcohol can affect antiseizure medications

- People taking these 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 antiseizure 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 changing the time of taking your antiseizure medication before drinking alcohol will not change this reaction and may even cause additional unwanted effects or seizures.



Can people with epilepsy drink alcohol?

Opinions vary. Some medical professionals recommend that alcohol should be avoided, 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 antiseizure medication. 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).

If you've had a reaction or increase in seizures connected with 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 antiseizure medication. Some types of epilepsy may be more sensitive to alcohol ingestion.

Mixing alcohol with other substances

If alcohol is mixed with other illicit substances or medication, these combinations can increase the risk of overdosing and enhancing the effects of the substances. There is little research regarding how this affects someone with epilepsy, 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 high sugar and caffeine ingestion which could 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.

High energy drinks are best avoided in any context



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. This recommendation is for healthy individuals. Although most complications with seizures and alcohol generally occur with long term or binge drinking, having a 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 antiseizure medication, 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 antiseizure medication, meaning you feel "drunk" faster.

Drinking alcohol

If you like to have a drink sometimes, perhaps:

- 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.
- Speak to your neurologist or GP for further advice



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