Be nice to Brain. Drink less.

What you need to know about alcohol and sleep

Key facts

- Quality sleep is essential for good health and wellbeing.
- Alcohol disrupts the balance of chemicals in the brain, changing the normal sleep cycle.
- You should avoid alcohol in the four hours before you go to bed.
- You can cut back or cut out alcohol to minimise long-term sleep problems.
- If you are having trouble sleeping, help is available.

Sleeping well is essential to good health and wellbeing. Sleep is a complex process which allows our brain to:

- Repair and regenerate cells and remove waste.
- Consolidate memory.
- Regulate emotions.
- Reorganise neural networks to support learning, attention, problem solving and creativity.
- Regulate the immune system, blood sugar level and appetite. 1.2.3

If you miss a night or two of good sleep, you're likely to feel tired, irritable and have trouble concentrating, remembering and making decisions.

Poor sleep over the long-term can lead to chronic health conditions. It causes metabolic and immune system changes, cardiovascular conditions, worsening mental health, and increased risk of developing a mood disorder.⁴



How alcohol affects sleep

Alcohol disrupts the normal phases of sleep by altering the balance of neurotransmitters, or chemical messengers, in the brain.⁵

Many of the chemical messengers, or neurotransmitters involved in regulating our sleep/ wake cycles are affected by alcohol.⁶

Because alcohol initially has a sedative effect, you may fall asleep quickly after drinking alcohol, but you will not have quality sleep, with less rapid eye movement (REM) sleep early in the night and less deep sleep in the second half of the night than usual.²

Once your body has processed the alcohol, a rebound effect leads to longer periods of REM sleep as the night progresses, and less deep sleep. You may experience frequent waking, night sweats, nightmares and headaches.² This disruption can cause daytime drowsiness which in turn can lead to the adoption of poor sleep habits, such as use of caffeine, which can further hinder sound sleep.⁶

The more alcohol in your bloodstream when you go to sleep, the greater the

disruption to your normal sleep cycles.

Another way in which alcohol can disrupt sleep is by affecting body's circadian rhythm, or body clock, by disrupting production of Melatonin. Melatonin is a hormone that brings about feelings of sleepiness. It is produced by the brain in response to certain stimuli, notably, nightfall. Research⁷ has shown that having a lot of alcohol on one occasion can disrupt your melatonin levels for up to a week, making it difficult to sleep soundly.

Alcohol can also interfere with your sleep by contributing to disorders such as sleep apnoea. Alcohol is a diuretic, which leads to more frequent urination.

Dependent use of alcohol is associated with major sleep problems which may persist for a long time after drinking alcohol stops.⁶

About insomnia



Insomnia refers to a combination of sleep problems which occur together on a regular basis. These include having difficulty falling asleep initially, not staying asleep for as long as you need, and waking during the night and being unable to return to sleep.

Most people have some symptoms of insomnia at some time, with around 10 per cent of people experiencing mild insomnia at any given time.²

Drinking alcohol can worsen existing symptoms of insomnia and may even lead to developing insomnia.¹⁰ Other causes of insomnia include stress, depression, anxiety and discomfort or pain.

If you have insomnia, it's important to not drink alcohol in the hours before you go to bed.

If insomnia persists, talk with your GP or a sleep specialist for personalised advice and support.

Good sleep habits

Here are some good sleep habits⁸ which can help you to sleep well. If you've had poor sleep for a long time, it may take a while to notice improvements.

- Cut back or cut out alcohol.
- Avoid alcohol for at least four hours before going to bed.
- Avoid or limit caffeinated drinks for at least four hours before going to bed, for example coffee, tea, or hot chocolate.
- Work with your body clock. Go to bed and get up at around the same time every day. Being out in the sun for a while in the early mornings will help to set your body clock.
- Avoid screen time before you go to bed.
- Enjoy daily physical exercise.
- Have a mattress and pillow that you find comfortable, and have your room darkened and at a comfortable temperature.
- Wear comfortable earplugs or sleep earphones if you are disturbed by noise that you can't control.
- Use the last hour or so before sleep to relax your mind. For example, have a warm bath or shower or read a book. Avoid mentally stimulating activities during this time.

If you continue to have poor sleep despite having good sleep habits, seek help from your GP or a sleep specialist.

For more tips on how to cut back on alcohol, information on alcohol and sleep, and a list of support services visit <u>benicetobrain.org.au</u>

1 Healthline. What is the purpose of sleep? Why Do We Sleep? What Happens During Sleep? (healthline.com)

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- 6 I.Colrain, C.Nicholas and F. Baker. 2014. Alcohol and the Sleeping Brain PMC (nih.gov)
- 7 M.Meyrel, B. Rolland and P. Geoffroy. 2020. <u>Alterations in circadian rhythms</u> following alcohol use: A systematic review - ScienceDirect
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