ALCOHOL: AN EFFECTIVE RECOVERY STRATEGY?

Many of us have made alcohol an important part of our lives, we use it as a lubricator for interpersonal connection in social engagements and as a stress reduction strategy to help us cope with work and life. Both uses are effective in moderation, but without careful management our health and ability to recover can be severely compromised.

A couple of drinks to help us relax after a tough day, what’s the harm in that? As a stress reduction strategy it is flawed, and more often than not will set you up for a tougher day tomorrow. After completing thousands of Firstbeat Assessments the evidence is clear that alcohol consumption prior to bed results in a poor night’s sleep, leaving us feeling run down and far below our best to face the following day’s challenges.

TIP: Our body needs approximately 1 hour to metabolise each standard drink of alcohol so try to develop a personal rule that stops your alcohol consumption at least an hour before bedtime, preferably two.

HOW DOES IT WORK?

How often have you heard someone say that alcohol helps them to fall asleep? It’s true that alcohol speeds the onset of sleep, but the assumption is that it must be beneficial to sleep. However, the reverse is actually true as it suppresses REM sleep which is essential for mental recovery and performance, and it interferes with the deeper more restorative stages of sleep needed to maximise recovery. In the second half of the night, after drinking alcohol, sleep quality is impaired and can be disrupted by frequent awakenings, night sweats, nightmares and headaches.

A recent study conducted by the University of Melbourne measured the effect of alcohol on brainwave patterns (EEG) during sleep. Researchers found that drinking alcohol before sleep reduced the quality of sleep, even though subjects fell into a deep sleep quickly their brain wave patterns displayed activity normally only seen during waking hours. These findings suggest that alcohol has a stimulating effect which interferes with the deeper more restorative stages of sleep needed to maximise recovery and resilience, which then impacts negatively on consequent daytime functioning and performance.

Think that Friday or Saturday night binge drinking session is OK because you exercise the next day? Think again! We know that alcohol damages the brain in part by altering glial functioning (the small cells which feed and connect the brain neurons). In contrast, exercise promotes glial health and plasticity, meaning improved neural brain connections. In the current Journal of Neuroscience - Volume 343, a study investigated whether alcohol binge drinking would diminish the effects of subsequent exercise on glia. The study focused on the medial prefrontal cortex (mPFC) - the emotion and feelings control centre of the brain, and an alcohol-vulnerable region that also undergoes improved neuroplastic changes in response to exercise. As expected exercise was found to increase the number of microglia in the mPFC in control animals (no alcohol) but frighteningly, the alcohol binged animals had significantly fewer and less developed microglia even after 4 weeks of exercise training. Meaning less and lower quality neural connections. These results indicate that alcohol binge drinking, even when followed by exercise, significantly impairs the performance enhancing effect of exercise on the brain.

Even exercise can’t shield you from the damaging effects of alcohol.

TIP: The more alcohol you drink before bed, the more pronounced the negative effects are on your sleep and performance.
**HOW MUCH IS TOO MUCH?**

For healthy men and women, the Australian Government Guidelines recommend drinking no more than 2 standard drinks on any day. A standard drink contains 10g of pure alcohol. Drinking more than the government guidelines puts your health at risk. Drinking alcohol can cause liver conditions, brain damage, heart disease, high blood pressure and increases your risk of many cancers.

To calculate your alcohol intake use the [Standard Drinks Calculator](#).

1 Standard Drink = OR OR

1 375ml Mid Strength 35% Alc Vol
100ml Standard Serve of Red Wine 13% Alc Vol
30ml High Strength Spirit Nip 40% Alc Vol

**HOW TO GET STARTED**

As a rule of thumb for every standard drink of alcohol it will take your body approximately 1 hour to dilute the effect enough so that it doesn't interrupt your sleep. Therefore, if you have had 3 standard drinks of alcohol (1/2 bottle wine) it may take your body 3 hours to process the alcohol, so try to have it earlier in the evening so that you have left your body enough time to dissipate the effects prior to bed.

**Practical tips to reduce alcohol consumption** – adapted from Australian Government Alcohol Guidelines

- Try to avoid alcohol during the working week or at least include some alcohol-free days in your week.
- Drinking alcohol during air travel makes jet lag worse by impairing recovery – avoid alcohol when flying.
- Set limits for yourself and stick to them.
- Use non-alcoholic (and non-sugary) drinks to reduce your alcohol intake by alternating them with alcoholic drinks.
- Drink slowly or water down your drinks to make them last longer e.g. Wine spritzer or beer shandy.
- Try drinks with a lower alcohol content.
- Avoid cocktails which can contain 3 standard drinks or more, and a lot of sugar.
- Eat before or while you are drinking (Choose quality food over snack or fast food).
- Be careful of being caught in buying rounds of drinks as it is difficult to limit volume when you aren’t in control of the drinking pace or volume.

**Want to know more?**

References

1. Australian Government Department of Health – [Alcohol Guidelines](#)
2. Sleep Health Foundation – [Things you should know about caffeine, food, alcohol, smoking and sleep](#)
4. Neuroscience - Volume 343 - [Binge alcohol alters exercise-driven neuroplasticity](#)
5. Harvard Medical School – [Division of Sleep Medicine](#)
6. WebMD – [Alcohol & Good Nights Sleep Don’t Mix](#)
7. Time – [This is What Alcohol Does to Your Sleep](#)