

Sleep and Substances: Alcohol, Cannabis, Nicotine, Caffeine, and Sugar

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Alcohol: may help fall asleep faster but will have a negative effect later in the evening with more frequent awakenings because one does not enter REM sleep.

Alcohol concentrates in organs and blood stream. As it metabolizes, a person wakes more often or remains in a lighter sleep.

Alcohol tends to aggravate sleep apnea, leading to a higher number of breathing events. With a lot of alcohol in one’s system, a person may be more passed out than truly sleeping, which makes it harder to recover from a breathing event.

Alcohol contributes to a vicious cycle of insomnia. Drink more □ Insomnia □ Drink more

Approximately $\frac{3}{4}$ of people with alcohol dependence/severe Substance Use Disorder suffer from insomnia. Insomnia □ **more caffeine.**

May interact with prescription medications.

Alcohol itself in addition to the **sugar** added to cocktails raises blood sugar levels, which can interfere with sleep.

Cannabis (marijuana): may help fall asleep faster but will have a negative effect later in the evening with more frequent awakenings because one does not enter REM sleep.

Possible rebound effect: may help some with insomnia in the short term but exacerbates it in the long term.

Method of use partly determines the effects. Inhaling produces results more quickly. Ingesting it may have slower results, so a person uses more.

There are no guidelines about the amount of THC (the psychoactive component) in products. THC may affect dreams.

The CBD (nonpsychoactive component) may produce better results at lower dosages.

Cannabis may help promote sleep if sleep issues are connected to restless legs and chronic pain.

May interact with prescription medications.

Nicotine: increases heart rate and blood pressure because it is a stimulant. A person who smokes before bed or during the night will spend more time in the lighter stages of sleep and less in REM and experience more frequent awakenings or sleep disturbances.

Nicotine contributes to sleep apnea and insomnia.

Withdrawal from nicotine may cause fatigue, irritability, headaches, depression, and nightmares.

A person may have an **alcoholic drink** or use **cannabis** to overcome the stimulating effects and create a difficult cycle.

Caffeine: increases heart rate and blood pressure because it is a stimulant. It is one of the most widely used stimulants in the world. In the US, it is estimated that nearly 90% of adults consume caffeine.

Caffeine may help with focus but tolerance grows quickly, which prompts people to consume more in order to achieve desired results, which may cause jitteriness interrupting focus.

Caffeine blocks the adenosine receptors that promote sleepiness.

Intake reaches its peak in 30-60 minutes. Its half-life (time to eliminate half the drug) is 3-5 hours.

Adult consumption should not exceed 300-400 mg per day (equivalent of 3-4 mugs of coffee). Youth consumption should be fewer than 100 mg but popular energy drinks contain 200+ mg.

Excessive caffeine may prompt a cycle: Too much caffeine → **alcohol or cannabis** to calm/slow down → interrupted sleep → excessive caffeine intake during the day.

Refined/added sugar: may trigger insomnia because it is high on the glycemic index. Sugar causes a more rapid increase in blood sugar.

Excessive sugar consumption creates a cycle: Spike in blood sugar → release of insulin → lower blood sugar → increase in adrenaline and cortisol

Sleep is crucial in the body's regulation of blood sugars that do fluctuate during sleep. Added and refined sugars disrupt the regulation by overloading it.

Sugars in whole fruits do not cause the same spikes because the fiber found in fruit slows absorption.

Sources:

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