

CANNABIS AND SLEEP

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Impact of Sleep on Your Health:

Sleep is the foundation that our health rests upon, no pun intended. Unfortunately, an estimated 70 million Americans are suffering from some form of sleep disorder (Ali, 2013). We spend a third of our lives sleeping and yet many of us never stop to consider how it truly impacts our physical and mental health. Often the demands of life feel like they force us to compromise how much sleep we get. Currently, Americans sleep about 2 hours less than they did 100 years ago because of our modern lifestyles (Ali, 2013). To sleep or not to sleep seems to be the question. An extra hour or two of our favorite show, catching up on work or school, there is always a siren calling us to stay up a little longer than we know we should. In the short term, it is hard to see the consequences of these decisions.

You may think, “Feeling a little groggy and drinking that extra dose of caffeine does not make or break a day!” but is that true? Poor sleep quality (how well you actually slept) and poor sleep duration (how long you slept for) are linked to the development of several chronic conditions including depression, cardiovascular disease, diabetes and obesity (CDC, 2019). This link is further supported by the fact that lack of sleep leads to disruptions in the immune system, leading to decreased immunity to things such as the common cold (Cohen et al., 2009) and increased inflammation within the body (Ali, 2013). On the other hand, longer sleep duration is associated with significant improvements in both physical and mental performance (Mah et al., 2011).

Sleep is a vital component of our lives that influences how we interact with the world around us. With so many Americans looking for answers to their problems with sleep, it is not surprising that cannabis has become a popular alternative to conventional methods of inducing sleep such as Ambien, Xanax, and Alcohol.

The Endocannabinoid System and Sleep:

To fully appreciate the relationship between cannabis and sleep we must first turn our attention to the endocannabinoid system (ECS) itself. The primary function of the ECS is to maintain homeostasis or balance within the brain and body. When it comes to sleep, the ECS is responsible for helping regulate the circadian sleep-wake cycle (Babson, Sottile, and Morabito, 2017). The circadian sleep-wake cycle is a scientific term for the natural 24-hour rhythm of sleeping and waking. Environmental cues such as sunlight, temperature, and physical activity tell our bodies whether it is time for being active or winding down. Researchers are currently suggesting that the ECS acts as a connection point between the circadian rhythm's primary regulators in the brain and the processes within the mind and body that are affected by it such as sleep and mood (Babson, Sottile, and Morabito, 2017).

Cannabinoids and Chronic Pain:

Based on the mounting evidence that the ECS plays a vital role in our sleep process and combined with anecdotal reports of people using cannabis to help with sleep-related conditions, it would seem reasonable to think cannabis helps promote sleep. Unfortunately, from a scientific perspective, it is not that simple. To fully understand how cannabis impacts sleep we must look to research that has explored the relationship between specific aspects of the cannabis plant and sleep.

Tetrahydrocannabinol - THC seems to be most effective at decreasing the amount of time required to fall asleep, great news for those suffering from insomnia. Unfortunately, tolerance quickly takes effect which reduces the overall effectiveness of using THC for sleep. Slow-wave sleep, which is what we think of as “deep sleep”, is increased while under the influence of THC. It also suppresses REM or “dreaming” sleep states which led to the investigation of THC for treating nightmares associated with PTSD. Researchers in several studies have demonstrated THC to be well tolerated and effective with mild side effects such as dry mouth, headaches, and dizziness. Pain is another factor that disrupts sleep and studies seem to indicate that THC can improve sleep for those with pain-related sleep disturbances. More research is needed to draw hard conclusions on when THC is effective and when it is not (Babson, Sottile, and Morabito, 2017).

Cannabidiol - The cannabinoid that’s changing the way people think about cannabis. In low doses, CBD has wakefulness properties and a mildly stimulating effect. Sedating properties take effect from high doses, one study reporting 160mg of CBD per day increased time spent sleeping and decreased sleep movement. CBD seems to ease people to sleep by reducing their anxiety, a major contributor to insomnia. Lower doses of CBD have demonstrated a decrease in excessive daytime sleepiness and combat the sedating properties of THC. Research also indicates that CBD may be useful for REM sleep behavior disorder which is a scientific term for acting out your dreams while sleeping. In terms of pain and sleep, CBD may be helpful when combined with THC. Due to the barriers faced by researchers when trying to do cannabis research, we are behind on major areas of cannabis research for sleep (Babson, Sottile, and Morabito, 2017).

Terpenes - Terpenes may also offer a window through which we can improve the effect cannabis has on sleep. Of the over 200 terpenes found in the cannabis plant, several have been linked to sleep. Linalool is a terpene found in cannabis but it is also a primary component of lavender which has been associated with sleep for centuries. Myrcene which is also found in hops (the cousin plant of cannabis) has been shown to demonstrate sedative properties. Other notable terpenes of interest include nerolidol and phytol (Russo, 2011).

When you have trouble sleeping every aspect of your life is impacted on both a mental and physical level. When your mind is racing or you are filled with worry, sleep seems like chasing a fly always slipping right past your fingertips. These sleepless nights tend to lead to days where things just do not feel as bright. It is these moments that drive us to search for something that will put our minds and bodies at rest, which will allow us to wake up feeling bright, rested, and ready to take on the day. Below are some ideas to help find that something to help you sleep on your personal journey with cannabis.

Know Your Dose

- 1.** When using cannabis, the dosage is critical to avoid unwanted side effects. Based on the research presented in this article, higher CBD and lower THC contents may be ideal for sleep. Take time to find the right dose for you by starting small and working your way up to the ideal place. For the ratio of CBD to THC start with 40:1 CBD to THC and work your way down, ideally no further than 1:1 CBD to THC.
- 2.** Strain selection is another key piece when using cannabis for sleep. Finding an ideal strain can be another challenging case of trial and error. A great starting point is the strain Granddaddy Purple because of its myrcene and linalool content. If that is too heavy, Tahoe OG has a nice balance of limonene and myrcene.
- 3.** Our body relies on specific cues from our environment to initiate the process of getting sleepy. The main cues that trigger this process are light, movement, and temperature. During waking hours, especially in the morning, aim to get as much sunlight and movement as possible. When the sun goes down you want to start keeping light to a minimum (including screen time), keep your home as cool as possible, and limit your physical activity.
- 4.** Mindset is a crucial element of getting to sleep quickly. Avoid working, watching TV, and any other stimulating activity while in bed. Failure to do so can cause your mind to associate those activities with your bed making it harder to fall asleep. Create a relaxing routine that signals to you that it is time for bed. There are a variety of relaxation techniques available to help people calm their minds and bodies in preparation for sleep!

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