

Sleep and Cannabis

Nearly 50% of U.S. adults describe episodes of insomnia that occur fairly frequently. These are episodes of not being able to fall asleep, or of awakening and not being able to fall back asleep, or awakening too early. These episodes we can treat with sleep aids, but we don't get excellent results with our current therapies, and there are considerable side effects.

Sometimes we use antidepressants, which are in some cases stimulating and in some cases very relaxing. Depending on the type of antidepressant we provide for you, we can dose it at a certain time of day to get a significant result to your sleep pattern.

We can also use benzodiazepines, like Ativan, Valium, but those medications have been associated with significant, what we describe as hangover effect. You take them at night to sleep, but in the morning, you're still sedated. We have shown in studies of the elderly that patients on regular doses of benzodiazepines are at increased risk for falls, and also increased risk for motor vehicle accidents.

Medications like the GABA products that impact the GABA systems, like Neurontin and Lyrica, and also antipsychotics have some effect with sedation, but obviously aren't something we'd use as first or even second-line therapy for managing insomnia.

Similarly, antihistamines have benefit for insomnia. Oftentimes my patients take Benadryl or Lyrica, or even Claritin or Allegra at bedtime to try to get a little benefit of that sedation and sleep a little better.

Some of my patients swear by the melatonin, valerian or over-the-counter herbal therapies to manage sleep.

Most of the data, and most of the research around those has to do with jet lag or changes in time zones associated with travel, where patients will describe that they get significant improvement. But some patients do very well on those day-to-day also.

It makes sense that medical cannabis would also be effective in the brain for insomnia. CB1 receptors are distributed widely across the brain, but interestingly are absent in the cardio respiratory centers in the brain stem. So there's wide potential for therapeutic use throughout the brain with really no risk for cardiac or respiratory suppression, even with high doses of cannabis.

But do we have any research on sleep and cannabis? There's a few great studies. One really interesting study was published in The Journal of Clinical Psychopharmacology in 2014. It studied 101 inmates in a correctional facility. It was a really great study. It's not a classic correctional facility. It was a Canadian facility that specializes in taking care of inmates that also

had severe mental illness. These were criminals who also had diagnosable mental disorder, many of them on multiple medications.

They did a chart review of all patients that were in the program for three-and-a-half years prior to the study being published, looking at the number of sleep hours per night, and the number of nights where patients experienced nightmares. They compared these pre and post-treatment, of patients who were included in the study, they were given at least one dose of a synthetic cannabinoid of a synthetic THC. 101 subjects dosed with synthetic THC, and sleep quality and duration was evaluated.

Out of these subjects, all indicated significant improvement. They were able to identify an increase in the average number of hours of sleep. In addition to a reduction in nightmares. So not only an improved duration of sleep, but an improved quality of sleep as well. Typically, the inmates reported, and it was shown, that they got improvements in the first one to two weeks, basically immediately upon initiating the therapy. And their improvements continued throughout the remainder of the trial. Only 9.6 percent chose to abandon the trial. I mean, some people just don't like the sedation that you can experience with THC administration and some people just don't like the psychoactive effect, that sense of getting high. And 9.6 percent is pretty stable compared to other studies.

The most serious adverse effect was psychosis, and that occurred in two patients who had a pre-existing illness, a pre-existing psychotic illness. So there were no new significant mental status changes for patients.

And in this group of 101 patients that were criminals in a jail, there was no evidence of drug diversion.

So now you're wondering, "Okay, that sounds really good with some patients that are inmates in a correctional center that have underlying mental illness, but does it work for somebody a little more like me? Just somebody who has a hard time sleeping sometimes?" Well I'll cover that in the next video.