



MICRODOSING **CANNABIS** TO RELAX AND AID SLEEP





MICRODOSING **CANNABIS** TO AID SLEEP & MANAGE STRESS

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Like many of you, I work. I parent. I cook. I clean. I support. I make many trips to Target and Trader Joe's. I have a lot of stress to manage and not enough hours in the day.

When I talked to my doctor about stress and anxiety many years ago, she immediately pulled out the prescription pad and wrote a prescription for Lexapro. I was really surprised to be getting an anti-depressant (because I didn't feel anything close to depressed!). Long story really short, when I finally decided to take it, I felt good for a bit and then awful. I was on it about six months and decided to stop. I experienced extreme side effects in withdrawal. and I committed to myself to find another way!

MY JOURNEY

In October 2016, I decided to give cannabis a try. I was very skeptical. I suspected at the very least, it would be as good as Xanax for taking the edge off but without all the side effects.



I'm a really confident person but the experience of going to a dispensary was very intimidating. The cash. The smell. The "budtenders." They told me about CBD. THC. I kept making sure they knew 1) I did not want to smoke anything and 2) I did not want to get high. I wanted to relax a little bit after work on occasion and have a bit more help with sleeping, without taking Ambien. I left with a low-dose mouth spray, with 3mg of THC.

Kristie Amobi
Rebalan Founder

I'm not entirely with the group who sings the praises of cannabis for everything, but I'm convinced it's worth a second look in microdoses to help manage stress and help sleep. I'm also now convinced cannabis is a great substitute for alcohol, with significantly fewer side effects in low doses.

The whole topic alienates a lot of mainstream people and since I consider myself pretty mainstream — I founded Rebalan and wrote this guide as a resource to help you figure out if it's right for you.

Plain speak. Accessible. From one like-minded stressed person to another. I sincerely hope this helps you in some way, even if it's to rule it out!

IS CANNABIS RIGHT FOR YOU?

It's impossible not to have heard at least a little buzz about the emerging cannabis industry as more and more states pass legislation for the medical use of cannabis, and increasingly, recreational use. At press time, 36 states and the District of Columbia have passed regulations permitting the use of cannabis or cannabis derivatives for various medical conditions. In addition, 13 states have some type of state law that acknowledges the medical value of cannabis, but falls short of legalization. Although there has been a surge of commercial activity in this area, the use of cannabis as medicine has not really caught the attention of traditional physicians, although some doctors do support its use.

SO WHERE DO WE STAND WITH THE RESEARCH?

Over the past three decades, there has been an explosion of international research on the therapeutic applications of cannabis and cannabinoids. But restrictions on cannabis research in the United States have resulted in very few clinical trials conducted domestically. These restrictions are in place because cannabis is federally classified as a Schedule 1 controlled substance. Meanwhile, scientific teams in Great Britain, Spain, Italy, Israel, and elsewhere

have confirmed cannabis has a place in the treatment of a wide range of health symptoms and conditions.

States with legalized medical marijuana have seen a drop in the number of prescriptions for painkillers, antidepressants and anti-nausea drugs.¹

A report issued in January 2017 by the National Academies of Sciences, Engineering, and Medicine, titled "The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research" also presents a very comprehensive review of the subject. Google this report or visit Rebalan.com if you want to do a deeper dive.

36 states and the District of Columbia have passed regulations permitting the legal use of medical cannabis.

Despite the explosion of state regulations in this area, cannabis (or marijuana) remains federally illegal as a Schedule I drug under the Controlled Substances Act of 1970.



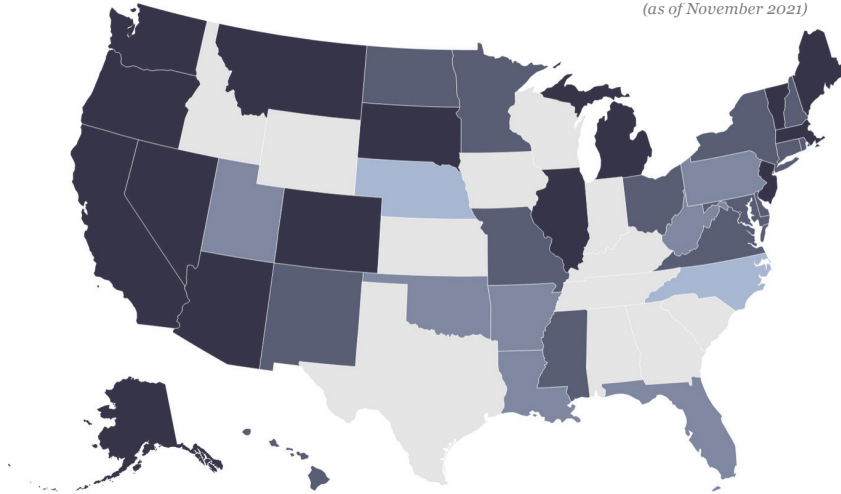
¹ https://www.washingtonpost.com/news/wonk/wp/2017/04/20/study-nationwide-medical-marijuana-laws-would-save-lives-and-a-billion-taxpayer-dollars/?utm_term=.4753a7c17134

States with legalized medical marijuana have seen a drop in the number of prescriptions for painkillers, antidepressants and anti-nausea drugs.



36 States & DC = Cannabis Legalization for Medical Use
15 States & DC = Cannabis Legalization for 21+ Adult Use

■ Fully illegal ■ Decriminalized ■ Medical ■ Medical and Decriminalized ■ Legalized
(as of November 2021)



*Washington, DC, legalized marijuana for recreational purposes, but doesn't allow sales.

Source: Marijuana Policy Project

Low-dose options are now available in more traditional methods of administration, such as liquid tinctures and capsules.

IS THIS SOMETHING YOU SHOULD CONSIDER FOR YOURSELF?

Many people acknowledge there probably is some role cannabis can play in helping to manage symptoms related to serious medical conditions, such as helping to mitigate the side effects of chemotherapy or reducing the frequency of debilitating seizures. By and large, however, most “mainstream” people do not see themselves as candidates for cannabis.

Why? Because cannabis gets you high. And most people don't want to be high. They have bills to pay. Business meetings to attend. Kids to watch. Dinners to cook. Can't be walking around smokin' weed.

What most people don't know is that cannabis in low doses is making a difference in the day-to-day lives of people suffering from a variety of conditions. Low doses reduce the psychoactive effects of the drug and can help people lower their stress levels and improve sleep. And low-dose options are available in more traditional methods of administration, such as liquid tinctures and capsules. These forms of administration will seem more familiar to the drugs you are used to seeing dispensed in traditional pharmacies and retail outlets.

GETTING STARTED

The most important step to getting started is looking into your local state regulations on the use of cannabis. Although the process varies from state to state, broadly speaking, the first step is to identify whether cannabis could be beneficial and therapeutic for you by consulting a local physician.

Your primary care provider may or may not be familiar with this type of medicine (sometimes referred to as integrative cannabinoid medicine), so it is important to research individuals in your area with experience in this field. Local practitioners who specialize in cannabinoid medicine will understand your state's specific requirements and regulations and will assist you in understanding how cannabis can be used to treat your condition.

In states where adult recreational use is legal, you can walk into your local cannabis dispensary and find the low-dose product that is right for you. You can locate your local dispensary with a simple Google search.



CANNABIS & ALCOHOL

Simply put, cannabis in low doses can be a healthier alternative to alcohol. In low doses, cannabis produces a state of relaxation without any disruptive side effects of higher doses such as coordination issues, drowsiness, paranoia or appetite stimulation. Unfortunately, there is still a lot of stigma associated with marijuana, but since there are so many discreet methods of administration, this shouldn't be viewed as a barrier. You can easily mix cannabis tinctures with non-alcoholic beverages to make your own infusion and easily "fit into the crowd." Do not mix cannabis with alcohol.

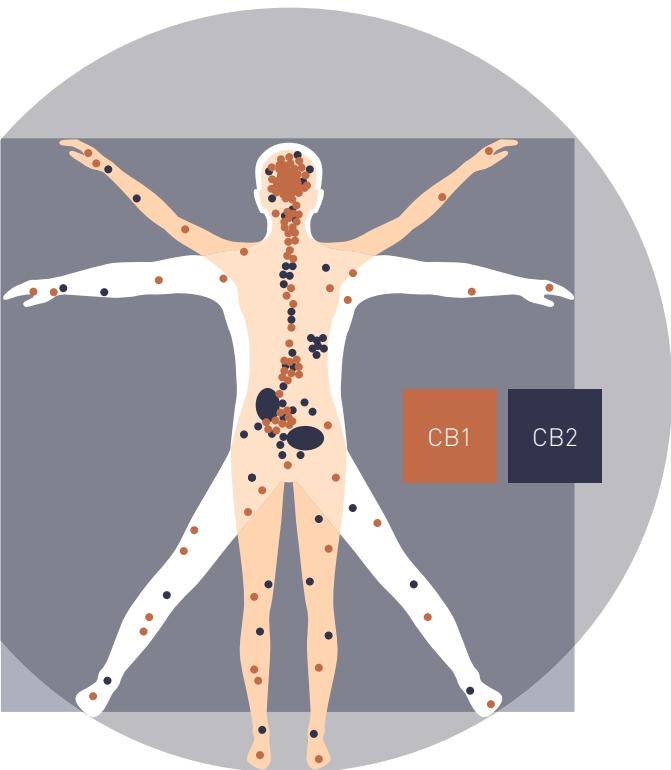
There has never been one case of lethal overdose that can be attributed to cannabis, worldwide.

CANNABIS BASICS

First-time dispensary visits can be overwhelming. A little research will go a long way in making you feel confident in your choices and to guard against any undesired effects.

The Endocannabinoid System

To start, it is important to understand how cannabis interacts with your body. The endocannabinoid system (ECS) refers to the cell receptors that occur naturally within humans (as well as all vertebrates). The ECS promotes homeostasis. The two main types of receptors, CB1 and CB2, are found throughout the body, but generally speaking, CB1 centers on the nervous system and CB2 on the immune system.



Cannabis interacts with the endocannabinoid system to produce psychological and physiological effects that can help manage a wide array of conditions. A great resource to understand more about the effects of cannabis on the endocannabinoid system is “Cannabis Yields and Dosage,” by Chris Conrad.

Cannabis Strains

Many botanists debate this topic, but within dispensaries there are three common classifications for cannabis strains: sativa, indica and hybrid. In low doses, the strain type may not make a noticeable difference but it is still important to be aware of these classifications and how people describe the perceived differences.



- 1. Sativa** — Sativa strains generally produce a more creative, cerebral, energetic effect. Sativa is often said to be the first choice for people battling fatigue or depression.
- 2. Indica** — Indica strains are typically more relaxing and felt in the body rather than the head. As such, some people say they can be effective treatments for pain relief, anxiety and insomnia.
- 3. Hybrid** — Hybrids seem to strike a balance, offering benefits of both strains. Some hybrids are indica-heavy, while others are sativa-heavy, and some are closer to a 50/50 balance between the two.

Cannabinoids

Don't just think of cannabis in terms of indica vs. sativa. Cannabis is not a single drug. It is a complex plant comprising 400+ chemical compounds, including 60+ cannabinoids, such as THC and CBD, and terpenes.

THC (tetrahydrocannabinol) binds with the CB1 receptors in the ECS to produce a psychoactive effect, while also potentially helping treat nausea, PTSD, glaucoma and other conditions.

CBD (cannabidiol), by contrast, decreases THC's interaction with CB1 receptors, and may offer pain relief, anti-inflammatory, anti-anxiety and anti-seizure effects.

Terpenes are fragrant compounds that give cannabis its aroma and work in tandem with cannabinoids, such as THC and CBD, to enhance their therapeutic effect. Terpenes are not specific to cannabis and are found in other plants as well.

What are the Effects of Cannabis?

A simple online search about cannabis will produce a plethora of information about cannabis, its use and effects. As with any drug, the effects are variable and will depend on a number of factors such as dose, method of administration, concurrent drug use, individual metabolism, etc.

It is difficult to generalize, but the primary effect of cannabis is a state of relaxation and a feeling of euphoria and happiness. People using cannabis in higher doses may also experience impaired coordination, which can compromise motor function and concentration. In extreme cases, people using cannabis in very large quantities may experience a toxic psychosis, which is an extremely disorienting condition involving feelings of paranoia, panic attacks and hallucinations.

The ratio of cannabinoids in your product of choice may also influence how you respond. There is evidence to suggest that CBD mitigates the psychoactive effects of THC because of their interaction with CB1 and CB2 receptors, so CBD in combination with THC may produce a more calming effect.

Regarding cannabis effects, it is important to note that there has never been one case of lethal overdose that can be attributed to cannabis, worldwide. This is remarkable considering that nearly 100,000 Americans die every year from adverse reactions to FDA-approved prescription drugs.



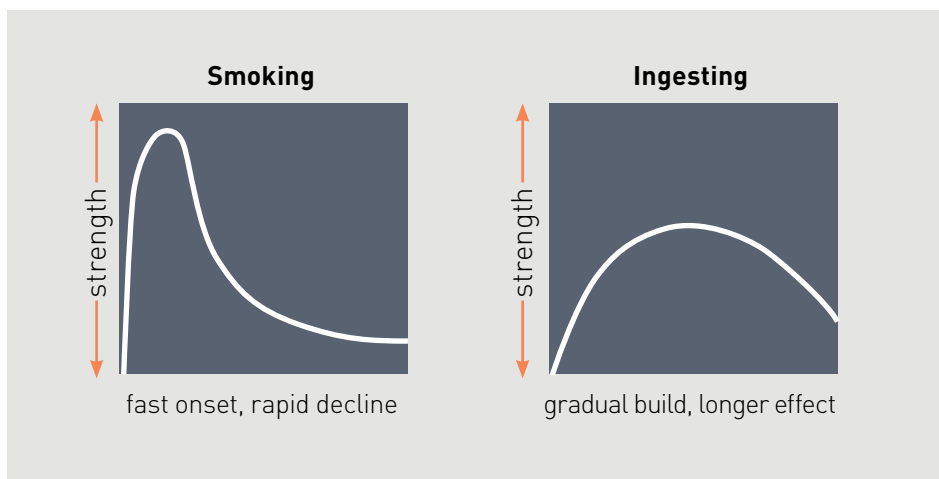
2. <https://www.forbes.com/sites/debraborchardt/2017/08/02/people-who-use-cannabis-cbd-products-stop-taking-traditional-medicines/#370aaf8b2817>

Methods of Administration

There are a variety of ways to consume cannabis.

Smoking or vaping cannabis: The quickest way to feel the effects of cannabis is to smoke the flower of the plant or use a vaporizer to heat concentrated cannabis oil and inhale it. Vaping cannabis is much more potent than smoking the flower, since concentrations in most vaping pens are more than 70% THC vs. 15-25% THC in the flower. You can also find cannabis flower and vaping oils that are higher in CBD, so make sure to closely read labels. When smoking or vaporizing cannabis, the effects can be felt within minutes. They typically reach a peak after 10-30 minutes and may linger for two or three hours.

Ingesting or absorbing cannabis: Cannabis-derived products, such as tinctures, capsules, pills, candies, etc. incorporate specific isolates (such as THC and CBD) that have been extracted from the plant using a chemical process (with butane, CO², etc.). Cannabis products that are taken orally are processed by the liver, which means it usually takes up to 2-3 hours to feel the effects and the effects may last up to 6-8 hours. Ingesting cannabis also provides a more full body effect. Cannabis can also be administered through special transdermal patches and suppositories. Some options offer a slow, timed-release and may be good for people starting out.



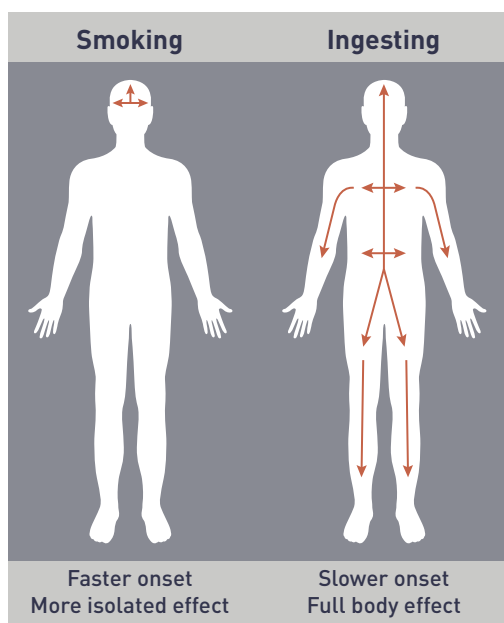
THE LOWDOWN ON LOW DOSING

By using cannabis in low doses, people can reap many stress-reducing benefits of cannabis without experiencing any undesired side effects such as coordination issues, drowsiness, paranoia or appetite stimulation.

What is Low Dosing or Microdosing?

Rebalan defines a low-dose product as having no more than 5mg of THC per dose. If it's important to you to mitigate the psychoactive effects of THC, make sure to use products that contain THC and CBD, or CBD only. Or, if using a THC-only product, keep it to less than 2.5mg of THC per dose. Depending on the product, the CBD to THC ratio will vary dramatically; some products are CBD-heavy, some THC-heavy, and others a 1:1 balance. Beyond the ratio, though, be sure to carefully look at the overall dosage. If you're using a product that has a 2:1 ratio of CBD to THC but a single dose delivers 20mg CBD / 10mg THC, this will most likely produce unwanted side effects.





The Benefits of Low Dosing

For many people, low dosing cannabis is an effective as a way relax and aid sleep. It can be a good alternative for prescription medication, such as benzodiazepines (Xanax, Ambien) and SSRI's (Lexapro, Paxil), which may present many unwanted side effects. Cannabis in low doses is also a potential substitute to alcohol. Diet and exercise are better, but if you're in the frame of mind where you are considering prescription medication, or drinking alcohol "to take the edge off," cannabis in low doses may be worth a look.

Ways to Low Dose

Given the range of products on the market and the variety of means of consumption, it can be difficult to precisely and consistently control the dose, and a negative experience may lead someone to erroneously conclude that cannabis is not for him or her.

Although smoking remains the most popular way for patients to consume cannabis, it's difficult to strictly control the dose when using a pipe or rolling paper. Even with "cleaner" vaporizing technology, potencies vary widely and it can be very difficult to predict and control the dose. Because of these issues, low dosing via tincture or edible may give you tighter control over what you're consuming and a longer lasting effect.

As described previously, the time of onset varies significantly by method of administration and other factors including general metabolism, interactions with other drugs, etc. Although smoking or vaping tend to produce immediate effects, ingesting cannabis will produce longer-lasting effects.



A microdose product has no more than 5mg of THC per dose.

COLD, HARD FAQs

When you are starting to educate yourself about this topic, tons of questions will come to mind. Some more serious than others, and some will be very serious. This section is our effort to lay it out for you in a very direct way, minus all the loosey-goosey caveats.

Cannabis is still illegal.

Can I be arrested for using it?

There has been a lot of development in this area in both the Trump and Obama administrations, but the bottom line is that cannabis (except products derived from hemp) remains federally illegal as a Schedule I drug under the Controlled Substances Act of 1970. This means that technically you can face federal prosecution for possessing cannabis. It is important to understand your local and state regulations in this area – though generally speaking (and in no way to be construed as legal advice), individual use in a state where cannabis is legal for medical or recreational purposes is probably a relatively low-risk activity, especially in the context of possessing cannabis in low doses.



Can I lose my job if I'm drug tested?

The short answer is yes. In June 2015, the Colorado Supreme Court affirmed a lower court ruling upholding the firing of an employee, a quadriplegic who smoked cannabis at home to control seizures and who failed a random drug test in 2010, citing the company's zero-tolerance policy of drug use.



The supreme court held that the term “lawful” refers only to those activities that are lawful under both state and federal law. It is important to check your company's policy regarding drug use.

What are the side effects of using cannabis in low doses?

Generally speaking, cannabis in low doses produces a state of relaxation and contentment, without unwanted side effects of heavy use such as sedation and toxic psychosis. The ratio of cannabinoids in your product of choice may also influence how you respond. CBD may mitigate the psychoactive effects of THC, for example. It is important to note that there has never been one case of lethal overdose that can be attributed to cannabis, worldwide.

Will I become addicted?

Because cannabis remains federally illegal as a Schedule I drug under the Controlled Substances Act of 1970, the research is somewhat limited and the addictive qualities of cannabis are not fully understood. The National Institute on Drug Abuse estimates 9% of people who use cannabis will become addicted to it, although this data relates to heavy, daily cannabis consumption. Withdrawal symptoms include insomnia, anxiety and nausea – which is not surprising since these are symptoms you may want to treat with cannabis in the first place. Relative to alcohol, opiates and cocaine, the rate of addiction for cannabis is much lower.

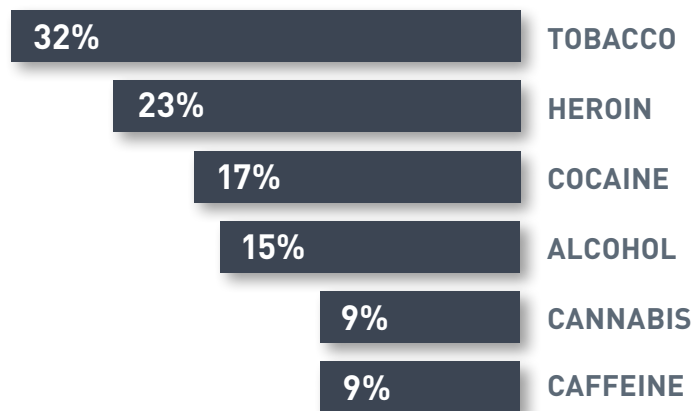
Can I still drive?

Motor impairment related to cannabis use is a serious issue. As when you are taking any prescription medication, it is important to exercise extreme caution when using cannabis and avoid operating heavy machinery.



DEPENDENCY RISK

National Institute of Drug Abuse, 2014



WHAT ABOUT HEMP-DERIVED CBD?

Have you noticed the explosion of CBD products that are available now in retail outlets? Even Amazon is selling CBD products! You might be wondering how this is possible if CBD is a derivative of cannabis, which is currently illegal at a federal level.

Here's how it works: CBD is also found in hemp. The Agriculture Improvement Act of 2018 removed hemp from the Controlled Substances Act, so hemp and its derivatives (including CBD) are no longer federally illegal. This allows for any part of the hemp plant to be grown, imported, and sold in the United States as long as it is less than .3% THC (it's impossible to completely remove any trace of THC). It is still up to states to determine their specific laws for cultivation, production and sale of hemp, however, and state laws vary widely.

One caveat: In passing the Agriculture Improvement Act of 2018, Congress explicitly preserved the FDA's authority to regulate products containing cannabis or cannabis-derived compounds under the Federal Food, Drug, and Cosmetic Act (FD&C Act) and section 351 of the Public Health Service Act. Under the FD&C Act, it's illegal to introduce drug ingredients (including THC and CBD) into the food supply, or to market them as dietary supplements – even if the CBD is derived from hemp.

So what's the verdict? If you want to use hemp-based CBD products, there is a gray zone, especially for food-based products and supplements. It's reasonable to assume there is more risk for product manufacturers than for individual consumers.

To learn more, visit: <https://www.fda.gov/newsevents/newsroom/pressAnnouncements/ucm628988.htm>

100,000 Americans die every year from adverse reactions to FDA-approved prescription drugs.



What about quality?

Quality standards vary widely, and unfortunately, many products lack basic product labeling regarding active and inactive ingredients, dose and side effects. The product mix in the low-dose market segment is also not very well developed. Can you guess why? Products in dispensaries by and large cater to people who want to get high or need much higher doses to treat serious medical conditions although this is changing as many state laws tightly restrict dosing limits. More products are available with 5mg of THC per dose or less. Oftentimes dispensaries will advise to “cut it in half” but in many cases that’s not practical or desirable. Read labels closely and start low and slow.

The new emerging low-dose cannabis consumer cares about two things: what are the side effects of using cannabis and is the dose clearly labeled and consistent?

This all seems really seedy to me. Aren’t dispensaries full of hippies and stoners?

In some cases, yes, but you’d be surprised by the diversity of the clientele. There is also more mainstream media coverage of the medical benefits of cannabis. Even Sanjay Gupta has had a change of heart on the topic (<http://www.cnn.com/2013/08/08/health/gupta-changed-mind-marijuana/>). More and more high-end dispensaries are being launched and in certain states, you can even have maximum discretion by using a local delivery service.

PRODUCT RECOMMENDATIONS

As with any therapeutic regimen, it's worth experimenting to find the products that you can rely on.

We have combed through more than 100 dispensaries across six states in search of the best products. **Visit Rebalan.com to see all the results.**

Here's the favorite!



BEST OVERALL

Kiva Petra mints

2.5mg / THC per mint

This is our favorite product in any category for price, quality, consistency and effect. Kiva designed Petra with low dosing and new cannabis consumers in mind. With 2.5mg of THC per mint, Petra offers a reliable way to get the medicinal benefits of THC without the disruptive psychoactive effects of THC in higher doses. Mints may take up to 2-3 hours to kick in. The effect lasts 4-6 hours, making these mints ideal for relaxation at a low price point with negligible calories. Kiva also offers a variety of flavors!

STAY IN TOUCH

Please make sure to let us know what you think.
Tell us your story. Become a correspondent.
Follow us on social media. Help us review more
low-dose products as you find them.

Make sure to find all of our current reviews
online at **Rebalan.com**

Sources

- American Cancer Society, *FDA Regulation of Drugs Versus Dietary Supplements*.
<https://www.cancer.org/treatment/treatments-and-side-effects/complementary-and-alternative-medicine/dietary-supplements/fda-regulations.html>
- Americans for SafeAccess, *Report on Medical Cannabis Research History*.
https://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say
- Bergamaschi, et al., *Cannabidiol Reduces the Anxiety Induced by Simulated Public Speaking in Treatment-Naïve Social Phobia Patients*. Neuropsychopharmacology, May 2011. <https://www.ncbi.nlm.nih.gov/pubmed/21307846>
- David Jenison, *Cannabis Connection: From Paranoia and Panic to Calm and Cool*. Paste Magazine, March 24, 2017. <https://www.pastemagazine.com/articles/2017/03/cannabis-connection-from-paranoia-and-panic-to-cal.html>
- Eric P. Baron, DO, *Comprehensive Review of Medicinal Marijuana, Cannabinoids, and Therapeutic Implications in Medicine and Headache: What a Long Strange Trip It's Been...* Headache, June 2016. <https://www.cbduunlimited.com/wp-content/uploads/2015/07/Medicinal-Cannabis1.pdf>
- Jeff Cirillo, Warren, *Gardner Unveil Marijuana Bill Easing Federal Enforcement*. Roll Call, June 7, 2018. <https://www.rollcall.com/news/policy/warren-gardner-unveil-marijuana-bill-easing-federal-enforcement>
- Laura Jarrett, *Sessions Nixes Obama-era Rules Leaving States Alone that Legalize Pot*. CNN, January, 4, 2018. <https://www.cnn.com/2018/01/04/politics/jeff-sessions-cole-memo/index.html>
- Lester Grinspoon, MD, *Commentary: On the Pharmaceuticalization of Marijuana*. International Journal of Drug Policy, 2001, p. 377-383. <http://www.rxmarijuana.com/Pharmaceuticalization.htm>
- National Center for Complementary and Integrative Health, *Medical Marijuana*.
<https://nccih.nih.gov/health/marijuana>
- National Academies of Sciences, Engineering, and Medicine. *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research*. Washington, DC: The National Academies Press, 2017. <https://doi.org/10.17226/24625>.
- Philip M. Boffey, *What Science Says About Marijuana*. The New York Times, July 30, 2014. <https://www.nytimes.com/2014/07/31/opinion/what-science-says-about-marijuana.html>
- Timmen L. Cermak, MD, *Addiction Medicine Perspective on the Medicalization of Marijuana*. CNS Productions, June 21, 1995. <https://cnsproductions.com/pdf/Cermak.pdf>
- U.S. Food & Drug Administration, *FDA 101: Dietary Supplements*, July 15, 2015.
<https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm050803.htm>
- U.S. Food & Drug Administration, *Complementary and Alternative Medicine Products and their Regulation by the Food and Drug Administration*, March 2, 2007. <https://www.fda.gov/RegulatoryInformation/Guidances/ucm144657.htm>



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