



It is no secret that the country is in the middle of an opioid epidemic. While these potent painkillers are FDA approved and prescribed by doctors, their addictive nature presents serious problems for long time use. With many addicted, and deaths from overdoses on the rise, we've finally caught on to the problem - but finding a solution hasn't been easy.

Another controversial medicine could be the answer we've been looking for. Research suggests that cannabis could be a huge help in reducing the opioid crisis - by helping individual patients to reduce or replace their opioid painkillers.

## THE PAINFUL TRUTH ABOUT OPIOIDS

The opioid problem didn't create itself. The truth is that people are in a lot of pain, and need a solution to keep going with their everyday lives. According to the National Institute of Health, pain affects more Americans than diabetes, heart disease and cancer combined. Pain is the leading cause of long-term disability in the US and the most common reason Americans go to the doctor. Some of the most common prescribed opioids include:

- Oxycodone, OxyContin (Percodan, Percocet)
- Hydrocodone (Vicodin, Lortab, Lorcet)
- Morphine (Kadian, Avinza, MS Contin)
- Codeine
- Fentanyl (Duragesic)
- Hydromorphone (Dilaudid)
- Meperidine (Demerol)

Unfortunately, the go-to prescription for pain has been opioids, and many with chronic pain issues have started taking this dangerous option. While pain is a huge issue which can leave a patient without the ability to lead a normal life, these painkillers can be even worse. Although they are very effective at reducing pain, they come with a wide range of negative side effects and require constantly increasing doses to maintain their analgesic effects. In the worst cases these increases can eventually lead to overdoses and death. In fact, opioids alone kill over 42,000 people each year, and the rates are increasing, making this the most deadly drug crisis the country has ever seen.



## Reducing Opioid Use with Cannabis

*"This is the perfect medicine for me. Because of the relief Sensi Chew gives me, I've been able to eliminate all pharmaceutical pain management. I wish all patients who suffer from autoimmune disease, chronic pain, anxiety and nausea had access to this medicine. With Sensi Chew I never worry about consistency and potency. My quality of life has improved a great deal and I'm finally able to care for my family with a smile. Thanks Sensi Chew!"*

-NG, Mission Viejo CA

### HOW PAIN WORKS

Pain can be frustrating and uncomfortable, but it is an important part of our body's effort to keep us healthy. When our body tissue is damaged in some way, nerves in the damaged area send a message to our brain letting it know something is not right. Our brain then takes steps to stop further damage to whatever part of the body is sending that pain message, such as the instantaneous reaction of pulling a hand away from a hot surface. The amount of pain we feel is a result of how many pain messages our brain receives from the nerves of the damaged area. There are many factors that dictate how much pain we each experience, including the complexity of our nervous system. Our nervous system is so complex the Mayo Clinic describes it as a complicated traffic system, with on-ramps, different speeds, traffic lights, varying weather and road conditions, a traffic control center, an emergency response system, and more.

### CHRONIC PAIN

Eventually and ideally, our bodies heal, the nerves in the damaged area stop sending pain messages to the brain, and we no longer feel the discomfort. But sometimes a part of our body can become damaged in a way that is not so easily fixed and the nerves' pain messages can persist. This is known as chronic pain. Chronic pain is pain that persists for months or longer and can be its own independent issue. Things like an old sports injury or misdiagnosed illnesses can be examples of chronic pain that can have a serious impact on our quality of life. Because chronic pain can be such a trying experience, many doctors will prescribe strong painkillers, even opioids, to help their patients' agony.

### OPIOID SIDE EFFECTS

While opioids may be effective in stopping our brains from receiving pain messages, their side effects can sometimes outweigh the benefits. According to the US National Library of Medicine, "Common side effects of opioid administration include sedation, dizziness, nausea, vomiting, constipation, physical dependence, tolerance, and respiratory depression." The side effects of opioids can have a more severe impact on someone's life than the pain that led them to take opioids in the first place. Fortunately, there are ways to combat chronic pain without facing such debilitating side effects.





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*"I started using the Sensi Chew CBD for pain relief instead of the oxycodone prescribed to me after surgery. The pain was excruciating. At first I didn't know how to dose myself with the chews but once I figured it out I get better rest and it doesn't constipate me like prescription pain pills do. Plus I feel pretty woozy & almost drunk-like on pain pills."*

-DP, San Jose CA

### CANNABIS CAN HELP

The active components in cannabis, known as cannabinoids, can help not only with the chronic pain that inspired the use of opioids, but also with the problems that arise from withdrawal from opioids. While there are a number of cannabinoids found in cannabis, those which are most effective in combatting pain are THC, CBD, CBG, and CBN. When these cannabinoids are introduced to your system they attach themselves to receptors in your body which specifically connect with cannabinoids, known as CB1 receptors, which are found mostly in the brain, and CB2 receptors, found in the immune system. While THC has an affinity for CB1 receptors and CBN has an affinity for CB2 receptors, CBD and CBG connect to both CB1 and CB2 receptors. Both CBD and CBG help our bodies fight inflammation, relieve pain, and calm our minds, whereas THC and CBN combat insomnia, nausea, and anxiety. Once the cannabinoids are attached to the receptors, your system is signaled to stop producing certain chemicals that increase your sensitivity to pain and start producing chemicals that relieve you of pain, inflammation, and stress, relaxing your body and mind.

One ailment THC and CBD have been found to be particularly potent against is inflammation. Like pain, inflammation is part of the body's defense system. When body tissue is damaged by trauma or a foreign substance, our immune system kicks into gear to protect and repair the tissue as quickly as possible. THC and CBD help to limit your body's production of certain chemicals and cells that exacerbate inflammation, reducing the negative effects and getting the damaged area back to better health quickly.

### CANNABIS CAN HELP REDUCE OPIOID RELIANCE

Thankfully, cannabis provides some hope in this otherwise grim picture.

In many ways, cannabis is an obvious choice for a pain-killing alternative. One of its most noted effects is pain reduction. In fact, reducing pain is the most common reason people use cannabis. One poll found 97% of patients using cannabis did so primarily to reduce chronic pain. So, it's not surprising that many pain patients have made the switch to legal cannabis.

As laws protecting the use of medical cannabis began to emerge around the country, scientists noticed an interesting trend. In the states where the laws provided easy access to cannabis, deaths from opioid overdoses went down by 25%. With a safer alternative to help with their pain, patients seem to rely on opioids less.



Now scientists are looking deeper into the issue and finding many good reasons to believe that cannabis could be the solution we are looking for. Studies have found that cannabis can help with the process of opiate withdrawal, increasing success rates and reducing the pain from the withdrawal process. Then cannabis can actually replace the opioid drugs afterwards, offering pain relief without the dangerous side effects or risk of overdose. One study published in the Cannabis and Cannabinoid Research journal found 81% of patients reported that cannabis alone was more effective at relieving their pain than using opioids.

## HOW TO REDUCE OPIATE DEPENDENCE WITH CANNABIS

If you are thinking about using cannabis to reduce or replace your opioid medication, the best first step is to talk to a doctor. Withdrawing off of opioids can be a dangerous and painful endeavor, and it's important to make sure you are going about it in the safest way possible. You and your doctor should discuss the best opioid withdrawal plan for your needs.

Still, once you have a safe withdrawal plan worked out, adding cannabis to the picture can be an effective way to reduce the painful effects of the withdrawal and increase the pain-relieving effects that you are receiving from your medicine. In fact, research shows that the combination of cannabis and opiates can provide synergistic effects - increasing the pain relief that can be expected from either medication. Early research hasn't shown any dangerous chemical interactions between cannabis and opioids. We even have direct research showing that the combination of a CBD treatment with opioid medications is safe and well-tolerated by patients.

"People have very different requirements. Not all pain is the same." explains Dr. Adie Poe, a neuroscientist with a background researching how cannabis can help the opioid crisis. Still she says that research suggests a balance of cannabinoids like THC and CBD tends to work best. "What we've seen through the scientific literature and through surveys of medical patients is that we really need a rich balance of cannabinoids and terpenes, and a diverse full spectrum phytochemistry." She recommends sticking to options that "have a balanced ratio of THC and CBD or very little THC at all, but still contain all of those other beautiful terpenes and cannabinoids that have medical benefit."



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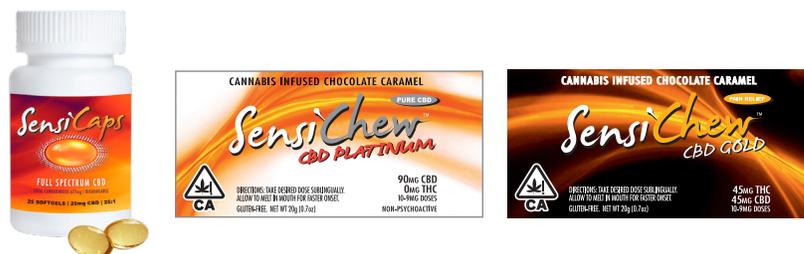
*"For me it's a real simple choice. I would rather ingest a plant rather than some man-made chemical to treat aches pains or inflammation. Being in sports my whole life I need to keep my body in the best shape possible and eating well and healing well are a huge part of that process. Go with the Sensi Chews every time."*

–Russell Winfield

Professional Snowboarder,  
Product Developer, Musician

The cannabinoids found in cannabis can be effective on their own, but work at peak performance together, as a whole. When cannabinoids combine forces, bringing out the best in each other, this is known as the Entourage Effect.

Products with this full spectrum of cannabinoids, include Sensi Caps Full Spectrum CBD Softgels, Sensi Chew CBD Platinum, and Sensi Chew CBD Gold. Sensi Chews are a cannabis infused chocolate caramel designed for fast onset. The Sensi Cap softgels and Sensi Chew CBD Platinum have a full spectrum of CBD with trace amounts of other helpful cannabinoids that can relieve chronic pain, anxiety, and inflammation. Sensi Chew CBD Gold has a higher concentration of THC with a 1:1 ratio of CBD and THC, and is very helpful to those who are suffering from more severe pain. These products are lab tested, reliable, and have a track record of being effective.



When it comes to dosing, everyone is unique. You may even find that you need different doses at different times - especially if you are actively withdrawing from opioids. Research suggests that patients need more cannabis to achieve relief while they are undergoing the withdrawal process - so your dosing may be higher during withdrawal but then stabilize out at a lower dosage once your withdrawal is complete. In general, cannabis is considered safe, without a risk of overdose, so patients can increase their dose as needed.

## REFERENCES

- Bachhuber, M A, B. Saloner, C O Cunningham, and C L Barry. "Medical cannabis laws and opioid analgesic overdose mortality in the United States, 1999-2010." *Current neurology and neuroscience reports*. Oct. 2014. U.S. National Library of Medicine. 31 Jan. 2019 <<https://www.ncbi.nlm.nih.gov/pubmed/25154332>>.
- Benyamin, R., A M Trescot, S. Datta, R. Buenaventura, R. Adlaka, N. Sehgal, S E Glaser, and R. Vallejo. "Opioid complications and side effects." *Current neurology and neuroscience reports*. Mar. 2008. U.S. National Library of Medicine. 31 Jan. 2019 <<https://www.ncbi.nlm.nih.gov/pubmed/18443635>>.
- Earlenbaugh, E. "Learning How Cannabis & Opioids Interact With Dr. Adie Poe." HelloMD, July 2018, [www.hellomd.com/health-wellness/5b3c55898904b90007731aa5/learning-how-cannabis-and-opioids-interact-with-dr-adie-poe](http://www.hellomd.com/health-wellness/5b3c55898904b90007731aa5/learning-how-cannabis-and-opioids-interact-with-dr-adie-poe).
- Nagarkatti, Prakash, et al. "Cannabinoids as Novel Anti-Inflammatory Drugs." National Center for Biotechnology Information, *Future Medicinal Chemistry*, Oct. 2009, [www.ncbi.nlm.nih.gov/pmc/articles/PMC2828614/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828614/).
- "Opioid Overdose." Centers for Disease Control and Prevention. 19 Dec. 2018. Centers for Disease Control and Prevention. 31 Jan. 2019 <<https://www.cdc.gov/drugoverdose/data/statedeaths.html>>.
- "Pain Management." NIH Facts Sheet Home. US Department of Health and Human Services. 31 Jan. 2019 <<https://report.nih.gov/nihfactsheets/ViewFactSheet.aspx?csid=57>>.
- Piomelli, Daniele, Susan Weiss, Graham Boyd, Rosalie Pacula, and Ziva Cooper. "Cannabis and the Opioid Crisis." National Center for Biotechnology Information. 1 Apr. 2018. *Cannabis and Cannabinoid Research*. 31 Jan. 2019 <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5931647/>>.
- "Prescription Pain Medications (Opioids)." NIDA for Teens. 01 Mar. 2017. 31 Jan. 2019 <<https://teens.drugabuse.gov/drug-facts/prescription-pain-medications-opioids>>.
- Raby, W N, K M Carpenter, J. Rothenberg, A C Brooks, H. Jiang, M. Sullivan, A. Bisaga, S. Comer, and E V Nunes. "Intermittent marijuana use is associated with improved retention in naltrexone treatment for opiate-dependence." *Current neurology and neuroscience reports*. July-Aug. 2009. *The American Journal on Addictions*. 31 Jan. 2019 <<https://www.ncbi.nlm.nih.gov/pubmed/19444734?doct=Abstract>>.
- Reiman, Amanda, Mark Welty, and Perry Solomon. "Cannabis as a Substitute for Opioid-Based Pain Medication: Patient Self-Report." Mary Ann Liebert, Inc. | Home. 1 June 2017. *Cannabis and Cannabinoid Research* Vol. 2, No. 1. 31 Jan. 2019 <<https://www.liebertpub.com/doi/full/10.1089/can.2017.0012>>.
- Russo, Ethan. "Taming THC: Potential Cannabis Synergy and Phytocannabinoid-Terpenoid Entourage Effects." British Pharmacological Society, *British Journal of Pharmacology*, 12 Jan. 2011, [bpspubs.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1476-5381.2011.01238.x](http://bpspubs.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1476-5381.2011.01238.x).

## REFERENCES *continued*

Scavone, J L, R C Sterling, S P Weinstein, and E J Van. "Impact of cannabis use during stabilization on methadone maintenance treatment." *Current neurology and neuroscience reports*. July-Aug. 2013. *The American Journal on Addictions*. 31 Jan. 2019 <<https://www.ncbi.nlm.nih.gov/pubmed/23795873>>.

Scavone, J L, R C Sterling, S P Weinstein, and E J Van. "Impact of cannabis use during stabilization on methadone maintenance treatment." *Current neurology and neuroscience reports*. July-Aug. 2013. U.S. National Library of Medicine. 31 Jan. 2019 <<https://www.ncbi.nlm.nih.gov/pubmed/23795873>>.

"Sensi Caps CBD Softgels - 25 count, 25mg CBD each." Sensi Products. Sensi Chew. 31 Jan. 2019 <<https://sensiproducts.com/product/sensi-caps-cbd-softgels-full-spectrum-251/>>.

"Understanding pain." Mayo Clinic. 26 July 2016. Mayo Foundation for Medical Education and Research. 31 Jan. 2019 <<https://www.mayoclinic.org/understanding-pain/art-20208632>>.

Webb, Charles W., and Sandra M. Webb. "Therapeutic Benefits of Cannabis: A Patient Survey." National Center for Biotechnology Information. Apr. 2014. *Hawai'i Journal of Medicine and Public Health*. 31 Jan. 2019 <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998228/>>.