

Medical Cannabis and the Persistence of Federal Prohibition

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ABSTRACT

In recent years, an increasing number of states in the United States have legalized the use of cannabis for medical purposes, reflecting a significant shift in both public opinion and state-level policy. Despite this, the federal government has continued to classify cannabis as a Schedule I controlled substance, a designation that implies no accepted medical use and a high potential for abuse. However, the persistence of federal cannabis prohibition cannot be explained by scientific uncertainty alone. Rather, it reflects how historical narratives rooted in racial propaganda and fearmongering became embedded in legal and bureaucratic institutions that change far more slowly than public opinion or medical evidence. Together, the legal frameworks governing cannabis classification, the cultural narratives underlying its criminalization, the expanding body of medical research, and the institutional barriers to reform reveal a widening divide between federal policy and contemporary evidence. This divide demonstrates how institutional structures can preserve an outdated classification long after its original justifications have eroded.

INTRODUCTION

Medical cannabis is currently illegal under federal law.¹ The Controlled Substances Act of 1970 (CSA) federally regulates drugs by classifying them into one of five schedules based on their potential for abuse, their applications in medicine, and their likelihood of producing dependence.² Schedule I drugs have no accepted medical use and are considered to have a high potential for abuse.³ After Schedule I, all other schedules have accepted medical uses in the United States, with the potential for abuse also decreasing across each successive schedule. Schedule V has the lowest potential for abuse.⁴

¹ “Is Cannabis Legal in the US? | Medical Marijuana Laws.” 2024. Cancer.org. 2024.
<https://www.cancer.org/cancer/managing-cancer/treatment-types/complementary-and-integrative-medicine/marijuana-and-cancer/is-cannabis-legal>.

² ———, n.d. “The Controlled Substances Act.” Wwww.dea.gov. <https://www.dea.gov/drug-information/csa>.

³ United States Drug Enforcement Administration. 2018. “Drug Scheduling.” Wwww.dea.gov. United States Drug Enforcement Administration. July 10, 2018. <https://www.dea.gov/drug-information/drug-scheduling>.

⁴ Texas State Board of Pharmacy. 2014. “Controlled Drugs.” Texas.gov. 2014.
<https://www.pharmacy.texas.gov/consumer/broch2.asp>.

Cannabis has been classified as a Schedule I drug since the CSA's creation in 1970.⁵ During the Biden administration, the Drug Enforcement Administration began the formal process of considering whether to move cannabis from Schedule I to Schedule III, which would recognize its accepted medical use under federal law and ease certain restrictions.⁶ However, many states have already legalized cannabis for adult use for both medical and recreational purposes. As of June 2025, 42 states and the District of Columbia have passed laws to make cannabis available.⁷ Over time, the legalization of medical cannabis has become increasingly widespread at the state level.

Medical cannabis is used to ease the symptoms of certain medical conditions, such as cancer. It is derived from the Cannabis sativa plant, which has active compounds such as cannabidiol (CBD) and delta-9 tetrahydrocannabinol (THC). THC is the psychoactive part of cannabis, affecting a patient's mood, behavior, and thoughts. Both, however, have extensive documented histories of medical use.⁸

LEGAL POLICIES

Despite the fact that it is illegal at the federal level, many states have legalized the use of cannabis both medicinally and recreationally. This conflict arises from federalism, a cornerstone of the United States Constitution that divides power between the state and federal governments.^{9, 10}

The Tenth Amendment establishes the distinction between enumerated and reserved powers, stating that powers neither delegated to the United States by the Constitution nor prohibited to the states are reserved to the states themselves.¹¹ However, under the Supremacy Clause, federal law is still above state law.¹² Because states possess reserved powers, certain laws may vary from state to state based on differing political priorities and legal interpretations. Thus, variation in medical cannabis legalization across states exists because states have acted according to their own interpretations of the law. Recent administrations,

⁵ "About Cannabis Policy | APIS - Alcohol Policy Information System." n.d. Alcoholpolicy.niaaa.nih.gov. <https://alcoholpolicy.niaaa.nih.gov/about/about-cannabis-policy>.

⁶ Friedman, Brett, Joshua Oyster, David Peloquin, and Emily Frutcher. 2024. "DOJ Proposes Rescheduling Marijuana, but the Outlook for Finalization Is Hazy | Insights | Ropes & Gray LLP." [www.ropesgray.com](https://www.ropesgray.com/en/insights/alerts/2024/05/doj-proposes-rescheduling-marijuana-but-the-outlook-for-finalization-is-hazy). May 29, 2024.

⁷ "Where Marijuana Is Legal in the United States." 2022. MJBizDaily. 2022. <https://mjbizdaily.com/map-of-us-marijuana-legalization-by-state/>.

⁸ Mayo Clinic . 2024. "What You Can Expect from Medical Marijuana." Mayo Clinic. May 30, 2024. <https://www.mayoclinic.org/healthy-lifestyle/consumer-health/in-depth/medical-marijuana/art-20137855>.

⁹ Constitution Annotated. 2014. "Federalism and the Constitution | Constitution Annotated | Congress.gov | Library of Congress." Congress.gov. 2014. https://constitution.congress.gov/browse/essay/intro.7-3/ALDE_00000032/.

¹⁰ Library of Congress. 1787. "U.S. Constitution - Article I | Resources | Constitution Annotated | Congress.gov | Library of Congress." Constitution.congress.gov. 1787. <https://constitution.congress.gov/constitution/article-1/>.

¹¹ Clark, Bradford. 2003. "The Supremacy Clause as a Constraint on Federal Power." *GW Law Faculty Publications & Other Works*, January. https://scholarship.law.gwu.edu/faculty_publications/439/.

¹² Hashmall, Joe. 2017. "Supremacy Clause." Legal Information Institute. June 5, 2017. https://www.law.cornell.edu/wex/supremacy_clause.

including those of Presidents Obama and Biden, have generally limited federal enforcement against state-authorized medical cannabis activity. Consequently, state legalization remains subject to change, as the legal status of medical cannabis has historically remained vulnerable to renewed federal intervention following shifts in presidential administrations.

Throughout United States history, multiple efforts have sought to reduce federal enforcement of cannabis laws as states legalized its medical and recreational use. One example is the 2013 Cole Memorandum, which established federal enforcement priorities but was later rescinded.¹³ Despite these setbacks, political efforts to advance legalization have continued. In 2023, the Department of Health and Human Services (HHS) recommended that the Drug Enforcement Administration (DEA) reclassify marijuana from Schedule I to Schedule III of the Controlled Substances Act.¹³ Following this, the DEA initiated the rulemaking process in 2024, opening a public comment period and scheduling hearings. If implemented, this change would acknowledge cannabis as having medical use and lower abuse risk, potentially easing research restrictions and reducing federal penalties. Consistent with broader efforts to reschedule cannabis, President Biden also advocated for its reclassification as a Schedule III substance, arguing that its criminalization has imposed unnecessary barriers to essential opportunities, including access to housing.¹⁴ As of 2026, although the rescheduling proposal has reached its final stages, it continues to face opposition, prompting the DEA to hold formal administrative hearings to determine how the various chemical forms of cannabis should be classified.¹⁵

SOCIETAL AND CULTURAL BELIEFS

Historical Foundations

During the 19th and early 20th centuries, cannabis was a widely used patent medicine until the Marihuana Tax Act of 1937 was passed. This shift was largely due to Commissioner Harry Anslinger, who exploited widespread prejudice against minority ethnic groups in the United States. He launched an advertising campaign in the 1930s aimed at connecting consumption of marijuana with violence and derangement among "lesser breeds," including Mexicans and African-Americans.¹⁶ Furthermore, he popularized the term "marijuana" to distance the substance from its established reputation as a patent medicine. Largely as a result of his advocacy, Congress enacted the Marihuana Tax Act, which effectively criminalized cannabis at the federal level. In addition to those initial regulations, both the Boggs Act, adopted in 1951,

¹³ Sidebari, Legal. 2024. "CRS Legal Sidebar Prepared for Members and Committees of Congress Legal Consequences of Rescheduling Marijuana." <https://crsreports.congress.gov/product/pdf/LSB/LSB11105>.

¹⁴ Miller, Zeke, Joshua Goodman, Jim Mustian, and Lindsay Whitehurst. 2024. "US Drug Control Agency Will Move to Reclassify Marijuana in a Historic Shift, AP Sources Say." AP News. April 30, 2024. <https://apnews.com/article/marijuana-biden-dea-criminal-justice-pot-f833a8dae6ceb31a8658a5d65832a3b8>.

¹⁵ Manfredi, Richard. 2026. "DEA Downschedules State Medical Marijuana to Schedule III; Expedited Hearing Set to Consider Broader Rescheduling." Gibson Dunn. April 29, 2026. <http://www.gibsondunn.com/dea-downschedules-state-medical-marijuana-to-schedule-iii-expedited-hearing-set-to-consider-broader-rescheduling>.

¹⁶ Britannica, T. Editors of Encyclopaedia. 2024. "Controlled Substances Act | History & Summary | Britannica." [www.britannica.com](https://www.britannica.com/topic/Controlled-Substances-Act). December 18, 2024. <https://www.britannica.com/topic/Controlled-Substances-Act>.

and the Narcotic Control Act, passed in 1956, imposed tougher penalties regarding cannabis possession.¹⁷ Nevertheless, the Marihuana Tax Act became unenforceable in 1967 when it was judged unconstitutional, and the CSA Act replaced it.

Through association with crime, violence, and general social disruption, politicians managed to alter society's image of cannabis. As a result, prohibition measures were justified by reshaping public perceptions of substances that had previously been regarded as legitimate medicines. In particular, cannabis's criminal status severely restricted scientific research and exploration. Public attitudes toward the drug, shaped by propaganda campaigns, further reinforced support for prohibition.

Implications and Changes in Society

Historically, police biases against Black communities have led to increased incarceration and violence. These roots have become so deeply established within the American justice system that their effects can still be clearly seen today.¹⁸ Between 2010 and 2018, more than 6.1 million marijuana-related arrests occurred nationwide. In 2018, Black Americans were arrested for marijuana possession at a rate of 567 per 100,000 people, compared with 156 per 100,000 White Americans, despite relatively equal usage rates.¹⁹ In other words, Black Americans were arrested for marijuana possession at approximately four times the rate of White Americans.

Although national data do not reveal what percentage of marijuana-possession arrests resulted in incarceration, broader drug-possession statistics suggest that racial disparities continue and become even greater during later stages of the criminal justice system.²⁰ Black adults were more than 2.5 times as likely as White adults to be arrested for general drug possession but nearly six times as likely to be imprisoned for it.²¹ A separate study revealed that after the legalization of drugs, arrests for drug sales dropped by 22% for White Americans and 17% for Black Americans. Despite this, only prison admissions for drug

¹⁷ Bridgeman, Mary Barna, and Daniel T Abazia. 2017. "Medicinal Cannabis: History, Pharmacology, and Implications for the Acute Care Setting." *P & T : A Peer-Reviewed Journal for Formulary Management* 42 (3): 180–88. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5312634/>.

¹⁸ NAACP. 2025. "The Origins of Modern Day Policing." *Naacp.org*. NAACP. 2025. <https://naacp.org/find-resources/history-explained/origins-modern-day-policing>.

¹⁹ Edwards, Ezekiel, Emily Greytak, Brooke Madubonwu, et al. n.d. "A Tale of Two Countries Racially Targeted Arrests in the Era of Marijuana Reform ACLU RESEARCH REPORT." In *ACLU*, edited by Rebecca McCray. Accessed July 28, 2026.

https://www.aclu.org/sites/default/files/field_document/tale_of_two_countries_racially_targeted_arrests_in_the_era_of_marijuana_reform_revised_7.1.20_0.pdf.

²⁰ "The War on Marijuana in Black and White | American Civil Liberties Union." 2024. American Civil Liberties Union. October 30, 2024.

<https://www.aclu.org/the-war-on-marijuana-in-black-and-white#marijuana-arrests-by-the-numbers>.

²¹ Stauffer, Brian. 2017. "Every 25 Seconds | the Human Toll of Criminalizing Drug Use in the United States." In *Human Rights Watch*.

<https://www.hrw.org/report/2016/10/12/every-25-seconds/human-toll-criminalizing-drug-use-united-states>.

offenses dropped by 34% among White Americans but remained unchanged among Black Americans.²² From 2017 to 2021, Black men were 23.4% less likely than White men to receive probation and received sentences that were 13.4% longer.²³ These findings suggest that racially driven discrimination within law enforcement continues into later stages of prosecution and sentencing.

Even though an arrest does not directly result in a conviction, the disproportionately high arrest rates of Black Americans increase their exposure to prosecution and the possibility of receiving a drug conviction. Additionally, sentencing disparities increase the likelihood that these convictions will lead to incarceration rather than probation.

Since the Fair Housing Act, which protects individuals against housing discrimination, does not directly protect individuals with criminal histories, landlords can consider drug convictions when evaluating housing applications.²⁴ As a result, because Black Americans are disproportionately likely to have drug-related criminal records, criminal history can function as an indirect means for landlords to deny housing to Black applicants.

However, there has been an increase in positive public opinion on cannabis following the wave of states legalizing cannabis use. Based on a survey conducted in 2017, 73% of Americans believed that “marijuana could be beneficial to pain management” in recreationally legal states, while only 67% and 63% of Americans thought so in medically legal states and nonlegal states, respectively.²⁵ From 2017 to the present, medical cannabis legalization has expanded into several conservative states, reflecting broader shifts in public opinion.²⁶ For example, in Oklahoma, a proposal to legalize medical cannabis was approved by 56% of voters.²⁷ Following this, a new survey was conducted, which revealed that around 66% of Americans supported legalizing cannabis for both medical and recreational use.²⁸ A separate survey conducted in 2024 found that 89% of Americans supported the medical use of cannabis.²⁹ A study

²² Associate Editor. 2026. “Changes to Cannabis Laws Have Not Reduced Racial Disparities in Arrests | the Journal of Blacks in Higher Education.” *The Journal of Blacks in Higher Education*. May 18, 2026. <https://jbhe.com/2026/05/changes-to-cannabis-laws-have-not-reduced-racial-disparities-in-arrests/>.

²³ United States Sentencing Commission. 2023. “2023 Demographic Differences in Federal Sentencing.” In United States Sentencing Commission. United States Sentencing Commission. <https://www.ussc.gov/research/research-reports/2023-demographic-differences-federal-sentencing>.

²⁴ Caldarone, Justin P. 2024. “Justin P. Caldarone.” *The Caldarone Law Group, P.A.* October 10, 2024. <https://www.caldaronelawgroup.com/blog/how-can-drug-charges-affect-my-housing-options/>.

²⁵ Steigerwald, Stacey, Beth E. Cohen, Marzieh Vali, Deborah Hasin, Magdalena Cerda, and Salomeh Keyhani. 2019. “Differences in Opinions about Marijuana Use and Prevalence of Use by State Legalization Status.” *Journal of Addiction Medicine* 14 (4): 1. <https://doi.org/10.1097/adm.0000000000000593>.

²⁶ Bryan, Kate. 2024. “Cannabis Overview.” *Www.ncsl.org*. June 20, 2024. <https://www.ncsl.org/civil-and-criminal-justice/cannabis-overview>.

²⁷ ArcGIS. (2026). *Arcgis.Com*. <https://www.arcgis.com/home/item.html?id=03b6ffb7ac6c41cc97b6ffcbbc53715b>

²⁸ Marijuana Policy Project. 2019. “2019 Marijuana Policy Reform Legislation.” MPP. MPP. 2019. <https://www.mpp.org/issues/legislation/key-marijuana-policy-reform/>.

²⁹ Pew Research Center. 2024. “Most Americans Favor Legalizing Marijuana for Medical, Recreational Use.” *Pew Research Center - U.S. Politics & Policy*. Pew Research Center. March 26, 2024. <https://www.pewresearch.org/politics/2024/03/26/most-americans-favor-legalizing-marijuana-for-medical-recreational-use/>.

suggests that this change in public perception may be attributed to shifts in media portrayal and increased access to information about medical cannabis instead of just increased exposure and legalization.³⁰ The study's findings align closely with the historical criminalization of cannabis, particularly Anslinger's efforts to disassociate the substance from its medicinal uses in order to strengthen his prohibition campaign. In response to the enduring effects of this history, advocacy organizations such as the American Civil Liberties Union (ACLU) have worked to increase public access to accurate information about medical cannabis and promote its inclusion in mainstream discourse. ACLU has worked to implement and protect medical cannabis decriminalization laws nationwide and has raised awareness of racial discrimination against people possessing cannabis.^{31, 32}

VALUE OF MEDICAL CANNABIS

Studies of medical cannabis have produced inconsistent findings regarding its effectiveness in pain management. Some studies report beneficial effects without substantial side effects, while others present contrasting findings. Unlike many conventional drugs, cannabis may help patients manage pain indirectly, such as by improving sleep, mood, and sense of control. These effects may help explain inconsistencies among earlier clinical trials, many of which focused primarily on pain intensity.³³

Benefits of Medical Cannabis

One of these medications derived from cannabis is Epidiolex. This FDA-approved medication is chemically derived from cannabis and has demonstrated significant seizure reduction in trials, while also showing promise in treating drug-resistant forms of epilepsy, such as Dravet syndrome.³⁴ This achievement indicates that it is possible to develop substances from cannabis that adhere to the FDA's safety and effectiveness requirements. The approval also shows that the cannabis plant has real potential as medicine and that its components can be used to create reliable and effective drug products. Consequently, Epidiolex is a clear example of the potential role of cannabis-derived treatments in modern healthcare that demonstrates the potential role of cannabis-derived treatments in modern healthcare. Specifically, the existence of an FDA-approved cannabis derivative directly undermines the Schedule I classification's central requirement that cannabis have no accepted medical use.

³⁰ PBS NewsHour. 2019. "Why so Many Americans Now Support Legalizing Marijuana, in 4 Charts." PBS NewsHour. February 5, 2019.

<https://www.pbs.org/newshour/science/why-so-many-americans-now-support-legalizing-marijuana-in-4-charts>.

³¹ "ACLU Criminal Law Reform Project." 2012. American Civil Liberties Union. October 24, 2012.

<https://www.aclu.org/documents/aclu-criminal-law-reform-project>.

³² "Marijuana Law Reform." n.d. American Civil Liberties Union.

<https://www.aclu.org/issues/criminal-law-reform/drug-law-reform/marijuana-law-reform>.

³³ Jussi Jylkkä, Aleksi Hupli, Aleksandra Nikolaeva, Sandra Alanen, Anna Erika Back, Sara Lindqvist, Andreas Krabbe, Maya Lavie-Ajayi, and Oskari Kantonen. 2023. "The Holistic Effects of Medical Cannabis Compared to Opioids on Pain Experience in Finnish Patients with Chronic Pain." *Journal of Cannabis Research* 5 (1). <https://doi.org/10.1186/s42238-023-00207-7>.

³⁴ Pope, Carmen. 2024. "Epidiolex: Side Effects, Dosage & Uses." Drugs.com. August 24, 2024. <https://www.drugs.com/epidiolex.html>.

The persistence of cannabis's Schedule I classification despite this contradiction reflects institutional inertia, through which legislation may remain in place long after its original justification dies out. Beyond Epidiolex, cannabis is most commonly used to treat chronic pain in states where its medical use has been legalized. Cannabis has been used to manage symptoms associated with conditions including PTSD, treatment-related nausea, and neuropathic pain. Its potential role in schizophrenia is more complicated because THC and CBD may produce different psychiatric effects.³⁵

This diversity of ailments treatable by cannabis shows that the healing properties of the plant are not limited by one health issue or symptom. By affecting multiple systems within a human body, cannabinoids can alleviate numerous types of physical and mental suffering experienced by patients. For example, recent studies have indicated that cannabinoids modulate pain perception rather than directly reducing pain intensity, meaning patients may feel more control over their discomfort despite minimal changes in pain ratings. Additionally, clinical trials comparing THC and CBD suggest that while THC alone is effective for pain relief, a combination of THC and CBD may enhance analgesic effects while minimizing THC's psychoactive drawbacks.³⁶ These findings suggest an important distinction between completely eliminating pain and enabling patients to manage it effectively. Even if the patient does not report lower levels of pain, improvement in coping with unpleasant sensations leads to increased quality of life.

Additionally, the finding that some cannabinoids show synergistic effects on each other opens new opportunities for the creation of drugs from cannabis components. The fact that federal restrictions have historically limited large-scale clinical trials on cannabinoid combinations means that these promising avenues of research remain underdeveloped because legal policy has constrained them. Medical cannabis's proven medicinal value is further supported by its use in cancer-related treatments. To reduce pain caused by cancer-related treatments, such as chemotherapy, the active compounds of cannabis, THC and CBD, interact with receptors in the endocannabinoid system to help reduce pain perception.³⁷ Furthermore, cannabis, especially its CBD-rich strains, has been shown to have strong analgesic, anti-inflammatory, and neuroprotective effects, all of which help alleviate the burning, tingling, and sharp pain caused by chemotherapy-related nerve damage.³⁸ Studies have shown that cannabinoids act as potent

³⁵ Pigott, Stacy. 2024. "Study Shows Cannabis Terpenes May Relieve Chemotherapy-Induced Neuropathic Pain." The University of Arizona Health Sciences. May 28, 2024. <https://healthsciences.arizona.edu/news/releases/study-shows-cannabis-terpenes-may-relieve-chemotherapy-induced-neuropathic-pain>.

³⁶ Leinen, Zach J., Rahul Mohan, Lakmini S. Premadasa, Arpan Acharya, Mahesh Mohan, and Siddappa N. Byrareddy. 2023. "Therapeutic Potential of Cannabis: A Comprehensive Review of Current and Future Applications." *Biomedicines* 11 (10): 2630. <https://doi.org/10.3390/biomedicines11102630>.

³⁷ Dominik Duczmal, Aleksandra Bazan-Wozniak, Krystyna Niedzielska, and Robert Pietrzak. 2024. "Cannabinoids—Multifunctional Compounds, Applications and Challenges—Mini Review." *Molecules* 29 (20): 4923–23. <https://doi.org/10.3390/molecules29204923>.

³⁸ Al-Khazaleh, Ahmad K., Xian Zhou, Deep Jyoti Bhuyan, Gerald W. Münch, Elaf Adel Al-Dalabeeh, Kayla Jaye, and Dennis Chang. 2024. "The Neurotherapeutic Arsenal in Cannabis Sativa: Insights into Anti-Neuroinflammatory and Neuroprotective Activity and Potential Entourage Effects." *Molecules (Basel, Switzerland)* 29 (2): 410. <https://doi.org/10.3390/molecules29020410>.

antioxidants that protect neurons from glutamate-induced toxicity, supporting their neuroprotective role in chemotherapy-induced neuropathy.³⁹

In addition to its neuroprotective effects, cannabis, particularly THC, is a powerful muscle relaxant.⁴⁰ Not only can THC be used to help reduce chemotherapy-induced muscle cramps, but it can also reduce muscle stiffness in those suffering from Parkinson's and other similar genetic disorders.⁴¹ Based on this evidence, it appears that medical cannabis can be considered a beneficial complementary therapy for patients suffering from cancer with regard to pain and other side effects associated with treatment.

As practitioners seek to limit unnecessary reliance on opioid medications, cannabis can be used to address multiple conditions at once, including nerve pain, inflammation, and muscle spasms. Given this profile of benefits and the well-documented risks of conventional pain medications, the continued Schedule I classification of cannabis, which restricts its medical use and limits research into its potential applications for cancer patients, does not reflect the careful weighing of risks and benefits that such a classification should require. In fact, the scientific reasoning behind its classification has largely collapsed over time as research deepens and public awareness increases.

Beyond areas supported by comparatively clearer scientific evidence, the relationship between cannabis and schizophrenia is more complex.³⁶ In particular, THC and CBD can produce substantially different effects in people with the disorder.⁴² THC is responsible for cannabis's intoxicating effects and may exacerbate psychosis, whereas CBD has been investigated for possible antipsychotic effects through its influence on serotonin, dopamine, and endocannabinoid signaling.^{43, 44} In one placebo-controlled study of 13 patients with schizophrenia, 80% experienced a worsening of at least three points on the Positive and Negative Syndrome Scale's positive-symptom subscale after receiving 2.5 milligrams of intravenous THC. THC also impaired verbal learning and recall.⁴⁵ Findings regarding CBD have been more variable.

³⁹ Ioana Creanga-Murariu, Leontina-Elena Filipiuc, Maria-Raluca Gogu, Mitica Ciorpac, Carmen Marinela Cumpat, Bogdan-Ionel Tamba, and Teodora Alexa-Stratulat. 2024. "The Potential Neuroprotective Effects of Cannabinoids against Paclitaxel-Induced Peripheral Neuropathy: In Vitro Study on Neurite Outgrowth." *Frontiers in Pharmacology* 15 (June). <https://doi.org/10.3389/fphar.2024.1395951>.

⁴⁰ Bodine, Michael, and Alysia K Kemp. 2022. "Medical Cannabis Use in Oncology." Nih.gov. StatPearls Publishing. January 19, 2022. <https://www.ncbi.nlm.nih.gov/books/NBK572067/>.

⁴¹ Patel, Rikinkumar S, Saher Kamil, Mansi R Shah, Narmada Neerja Bhimanadham, and Sundus Imran. 2019. "Pros and Cons of Marijuana in Treatment of Parkinson's Disease." *Cureus* 11 (6). <https://doi.org/10.7759/cureus.4813>.

⁴² Patel, Shweta J, Sahar Khan, Saipavankumar M, and Pousettef Hamid. 2020. "The Association between Cannabis Use and Schizophrenia: Causative or Curative? A Systematic Review." *Cureus* 12 (7). <https://doi.org/10.7759/cureus.9309>.

⁴³ Johnson, Kennadi, Abby J Weldon, and Melissa A Burmeister. 2024. "Differential Effects of Cannabis Constituents on Schizophrenia-Related Psychosis: A Rationale for Incorporating Cannabidiol into a Schizophrenia Therapeutic Regimen." *Frontiers in Psychiatry* 15 (April). <https://doi.org/10.3389/fpsy.2024.1386263>.

⁴⁴ Davies, Cathy, and Sagnik Bhattacharyya. 2019. "Cannabidiol as a Potential Treatment for Psychosis." *Therapeutic Advances in Psychopharmacology* 9 (January): 204512531988191. <https://doi.org/10.1177/2045125319881916>.

⁴⁵ Ahmed, Saeed, Robert M. Roth, Corneliu N. Stanciu, and Mary F. Brunette. 2021. "The Impact of THC and CBD in Schizophrenia: A Systematic Review." *Frontiers in Psychiatry* 12 (July). <https://doi.org/10.3389/fpsy.2021.694394>.

In a four-week trial of 42 acutely psychotic patients, treatment with 800 milligrams of CBD per day reduced total symptom scores by approximately 30 points and positive-symptom scores by approximately nine points, improvements comparable to those observed with the antipsychotic amisulpride, although formal noninferiority was not established. A separate six-week study of 36 stable patients found that 600 milligrams of CBD per day did not significantly outperform a placebo in reducing symptoms ($p = .18$). By contrast, another six-week trial involving 88 patients found that 1,000 milligrams of CBD per day reduced positive-symptom scores by 3.2 points, compared with a 1.7-point reduction among patients receiving a placebo.⁴⁵ A preclinical study similarly demonstrated the complexity of these effects: in a rat model of schizophrenia, CBD mitigated certain THC-related inflammatory and structural abnormalities but did not prevent behavioral deficits.⁴⁶ These findings demonstrate the importance of distinguishing high-THC cannabis from isolated CBD while also showing that the current evidence remains too inconsistent to recommend either compound as a treatment for schizophrenia.

In addition to containing numerous chemical compounds with varying potencies and effects, cannabis can be administered through a range of delivery methods. Common ways include inhaling it through smoking or vaping, consuming it through edibles and pills, or oromucosal administration.⁴⁷ The availability of various modes of delivery adds more flexibility to the use of this medication in treating different medical conditions. Rather than functioning as a universal remedy, cannabis can be administered through individualized approaches that account for factors such as onset of action, duration of effect, and symptom severity. These other ways of administration can affect the efficacy of the drug and what the drug targets.⁴⁸

A study conducted in 2020 revealed that although CBD and THC could reduce neuropathic pain when administered through the oromucosal route, inhaled dried cannabis containing THC produced greater pain relief.⁴⁹ Oromucosal cannabis spray has also been shown to help manage neuropathic pain without demonstrating evidence of tolerance during long-term use.⁵⁰ This finding is notable because tolerance can require patients to use progressively higher doses of certain pain medications, suggesting that cannabis spray may have potential in the sustained management of chronic pain. However, the effectiveness of

⁴⁶ Lamanna-Rama, Nicolás, Diego Romero-Miguel, Marta Casquero-Veiga, Karina S. MacDowell, Cristina Santa-Marta, Sonia Torres-Sánchez, Esther Berrocoso, Juan C Leza, Manuel Desco, and María Luisa Soto-Montenegro. 2023. "THC Improves Behavioural Schizophrenia-like Deficits That CBD Fails to Overcome: A Comprehensive Multilevel Approach Using the Poly I:C Maternal Immune Activation." *Psychiatry Research*, November, 115643. <https://doi.org/10.1016/j.psychres.2023.115643>.

⁴⁷ MMTC. 2020. "Top Ways to Consume Medical Marijuana." MMTC. June 16, 2020. <https://www.mmtcfl.com/blog/top-ways-to-consume-medical-marijuana/>.

⁴⁸ Administrator. 2024. "Cannabis as Medicine for Healthcare Providers." University of San Diego - Professional & Continuing Education. November 2024. <https://pce.sandiego.edu/medical-use-cannabis/>.

⁴⁹ Überall, Michael A. 2020. "A Review of Scientific Evidence for THC:CBD Oromucosal Spray (Nabiximols) in the Management of Chronic Pain." *Journal of Pain Research* 13 (February): 399–410. <https://doi.org/10.2147/JPR.S240011>.

⁵⁰ Rabgay, Karma, Neti Waranuch, Nathorn Chaiyakunapruk, Ratre Sawangjit, Kornkanok Ingkaninan, and Piyameth Dilokthornsakul. 2020. "The Effects of Cannabis, Cannabinoids, and Their Administration Routes on Pain Control Efficacy and Safety: A Systematic Review and Network Meta-Analysis." *Journal of the American Pharmacists Association* 60 (1): 225–234.e6. <https://doi.org/10.1016/j.japh.2019.07.015>.

cannabis varied according to both the type of pain and the method of administration. For physical pain, only orally administered cannabis extract was found to produce a significant reduction in symptoms. Similarly, in a study of patients whose cancer-related pain was not adequately controlled by opioids, a combined THC:CBD extract improved pain compared with a placebo, whereas THC alone did not produce a statistically significant improvement.⁵¹ These findings demonstrate that the potential benefits of cannabis depend on selecting the appropriate chemical composition and method of administration for a particular condition.

This individualized approach may also allow cannabis to serve as an adjunct to opioids for certain chronic pain conditions.⁵² Although opioids remain an important component of clinical care for severe acute, postoperative, cancer-related, and palliative pain, cannabis has been investigated as a possible adjunct for certain chronic pain conditions.^{53,54} For patients with chronic, non-cancer pain, medical cannabis and opioids have been found to provide similarly modest improvements in pain, while cannabis resulted in fewer treatment discontinuations due to adverse effects. Because this comparison was based largely on indirect evidence, however, it does not establish cannabis as a substitute for opioids across different pain conditions.⁵⁵ Instead, one potential benefit of cannabis may be its opioid-sparing role, in which cannabinoids supplement opioid treatment and allow pain relief to be maintained with a lower opioid dosage.

Such a reduction could be clinically valuable given the adverse effects and risks associated with opioid treatment.⁵⁶ For example, a study conducted in 2017 found that 97% of respondents who used opioids reported that they were able to decrease their opioid consumption while taking cannabis.⁵⁷ Although the self-reported nature of the study prevents researchers from concluding that cannabis directly caused the

⁵¹Johnson, Jeremy R., Mary Burnell-Nugent, Dominique Lossignol, Elena Doina Ganae-Motan, Richard Potts, and Marie T. Fallon. 2010. "Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel-Group Study of the Efficacy, Safety, and Tolerability of THC:CBD Extract and THC Extract in Patients With Intractable Cancer-Related Pain." *Journal of Pain and Symptom Management* 39 (2): 167–79.

<https://doi.org/10.1016/j.jpainsymman.2009.06.008>.

⁵²Ang, Samuel P., Shawn Sidharthan, Wilson Lai, Nasir Hussain, Kiran V. Patel, Amitabh Gulati, Onyeaka Henry, Alan D. Kaye, and Vwaire Orhurhu. 2023. "Cannabinoids as a Potential Alternative to Opioids in the Management of Various Pain Subtypes: Benefits, Limitations, and Risks." *Pain and Therapy*, January.

<https://doi.org/10.1007/s40122-022-00465-y>.

⁵³Dowell, Deborah, Kathleen Ragan, Christopher Jones, Grant Baldwin, and Roger Chou. 2022. "Cdc Clinical Practice Guideline for Prescribing Opioids for Pain." *MMWR. Recommendations and Reports* 71 (3): 1–95.

<https://doi.org/10.15585/mmwr.rr7103a1>.

⁵⁴WHO. 2019. "WHO Guidelines for the Pharmacological and Radiotherapeutic Management of Cancer Pain in Adults and Adolescents." In *Www.Who.Int*. <https://www.who.int/publications/i/item/9789241550390>.

⁵⁵Jeddi, Haron M., Jason W. Busse, Behnam Sadeghirad, et al. 2024. "Cannabis for Medical Use Versus Opioids for Chronic Non-Cancer Pain: A Systematic Review and Network Meta-Analysis of Randomised Clinical Trials." *BMJ Open* 14 (1): e068182. <https://doi.org/10.1136/bmjopen-2022-068182>.

⁵⁶Khalid, Noman, and Abhishek Singh. 2022. "Cannabis versus Opioids for Pain." *Nih.gov. StatPearls Publishing*. January 25, 2022. <https://www.ncbi.nlm.nih.gov/books/NBK573080/>.

⁵⁷Reiman, Amanda, Mark Welty, and Perry Solomon. 2017. "Cannabis as a Substitute for Opioid-Based Pain Medication: Patient Self-Report." *Cannabis and Cannabinoid Research* 2 (1): 160–66.

<https://doi.org/10.1089/can.2017.0012>.

reduction, the findings provide preliminary support for further investigation into its opioid-sparing potential. Current clinical evidence has not established that this effect occurs consistently, and cannabis can introduce adverse effects of its own, including dizziness, sedation, and nausea.^{58,59,60} Nevertheless, the possibility that cannabinoids could complement rather than replace opioids demonstrates their potential value within individualized pain-management plans. Further controlled research is needed to determine which patients, formulations, and clinical circumstances are most likely to benefit from combined treatment.

Risks of Medical Cannabis

However, as with all medications currently available, cannabis is also associated with potential limitations and adverse effects. Increased cannabis use is often connected with cannabis use disorder (CUD), increased incidence of psychosis in a dose-dependent manner, major depressive disorder, bipolar disorder, and anxiety disorders.⁶¹ Substance misuse may increase an individual's risk of cognitive disorders, including dementia, because of the neurological and physiological effects associated with certain substances. The association between cannabis use disorder and cognitive dysfunction was stronger among patients without a history of traumatic brain injury than among patients with TBI. In other words, by itself, the effect of controlled cannabis use on increasing a patient's risk for cognitive disorders is the most substantial when the patient already has a TBI.⁶²

CUD is also associated with an increased risk of schizophrenia among young men. Studies have shown that up to 30% of schizophrenia cases in young men could potentially have been prevented by averting CUD. One particular study conducted in 2021 revealed that about 15% of schizophrenia cases in young men may have been prevented by avoiding CUD, in contrast to only 4% of cases in young women.⁶³ While this study did not directly analyze the reasons behind the differing effects of cannabis on schizophrenia rates in young adults, its findings suggest that differences between female and male brains may influence how cannabis use affects a patient. For example, early introduction of the drug led to lower

⁵⁸Noori, Atefeh, Anna Miroshnychenko, Yaadwinder Shergill, et al. 2021. "Opioid-Sparing Effects of Medical Cannabis or Cannabinoids for Chronic Pain: A Systematic Review and Meta-Analysis of Randomised and Observational Studies." *BMJ Open* 11 (7): e047717. <https://doi.org/10.1136/bmjopen-2020-047717>.

⁵⁹ United States Drug Enforcement Administration. 2019. "Marijuana." *Dea.gov*. 2019. <https://www.dea.gov/factsheets/marijuana>.

⁶⁰"Living Systematic Review on Cannabis and Other Plant-Based Treatments for Chronic Pain | Effective Health Care Program." n.d. In *Effectivehealthcare.Ahrq.Gov*. Accessed July 29, 2026. <https://effectivehealthcare.ahrq.gov/products/plant-based-chronic-pain-treatment/living-review>.

⁶¹National Library of Medicine. 2017. "Therapeutic Effects of Cannabis and Cannabinoids." *Nih.gov*. National Academies Press (US). 2017. <https://www.ncbi.nlm.nih.gov/books/NBK425767/>.

⁶²Esmaeili, Aryan, Clara Dismuke-Greer, Terri K Pogoda, Megan E Amuan, Carla Garcia, Ariana Del Negro, Maddy Myers, Eamonn Kennedy, David Cifu, and Mary Jo Pugh. 2024. "Cannabis Use Disorder Contributes to Cognitive Dysfunction in Veterans with Traumatic Brain Injury." *Frontiers in Neurology* 15 (January). <https://doi.org/10.3389/fneur.2024.1261249>.

⁶³National Institutes of Health. 2023. "Young Men at Highest Risk of Schizophrenia Linked with Cannabis Use Disorder." *National Institutes of Health (NIH)*. May 4, 2023. <https://www.nih.gov/news-events/news-releases/young-men-highest-risk-schizophrenia-linked-cannabis-use-disorder>.

IQ and less education among females but led to greater lifetime cannabis use among males. While men are more susceptible to CUD than women, the aforementioned research took data from only patients with CUD. As a result, the disparity in schizophrenia case ratios may be attributed to underlying neurobiological differences.

However, the prevalence of moderate to severe CUD is higher in states where both medical and non-medical use of cannabis were allowed, with a prevalence of 7.5%. On the other hand, its prevalence was slightly lower in states that only allowed non-medical use, at 7.2%, and was by far the lowest in states that allowed only medical use, at 1.3%.⁶⁴ Potential reasons may include, but are not limited to, professional medical guidance advising patients against using cannabis when it is not beneficial to their condition or medical background, stricter regulations on the amount of cannabis consumed, and restrictions on the type of cannabis used. The risk of cannabis dependence is higher in younger individuals, such as children.⁶⁵ Long-term cannabis use in children can lead to altered brain development and cognitive impairment, including lower IQ, poor educational performance, and higher rates of psychiatric conditions.^{66,67} As a result, if not prescribed carefully and used in moderation, medical cannabis can be especially detrimental to developing minds, as is the case with other psychoactive drugs.

Furthermore, under the current regulatory framework, many cannabis products have lacked consistent regulation and standard clinical enforcement. Because these products were not regulated as FDA-approved pharmaceuticals, their potency, purity, and dosage may vary considerably.⁶⁸ Its status as a Schedule I drug has created barriers to extensive research on cannabis, contributing to inconsistencies and limitations across studies. As a result, many findings about cannabis are not comprehensive enough to be considered conclusive within the medical field. Although certain adverse effects are well established, studies have produced inconsistent findings regarding how the effects of cannabis use vary across different populations. For example, one study showed that only girls had increased symptoms of depression after using cannabis.

In contrast, another study conducted during the same period concluded that only boys experienced higher levels of depressive symptoms. Since both studies were conducted within the same time period, it is unlikely that the difference in their results can be attributed to the passage of time or the evolution of scientific methods and understanding of the drug. Thus, separate methodological or sample-related factors

⁶⁴ Lapham, Gwen T., Theresa E. Matson, Jennifer F. Bobb, Casey Luce, Malia M. Oliver, Leah K. Hamilton, and Katharine A. Bradley. 2023. "Prevalence of Cannabis Use Disorder and Reasons for Use among Adults in a US State Where Recreational Cannabis Use Is Legal." *JAMA Network Open* 6 (8): e2328934. <https://doi.org/10.1001/jamanetworkopen.2023.28934>.

⁶⁵ CDC. 2024c. "Cannabis and Teens." Cannabis and Public Health. February 26, 2024. <https://www.cdc.gov/cannabis/health-effects/cannabis-and-teens.html>.

⁶⁶ Fleming, Charles B., W. Alex Mason, James J. Mazza, Robert D. Abbott, and Richard F. Catalano. 2008. "Latent Growth Modeling of the Relationship between Depressive Symptoms and Substance Use during Adolescence." *Psychology of Addictive Behaviors* 22 (2): 186–97. <https://doi.org/10.1037/0893-164x.22.2.186>.

⁶⁷ Patton, G. C. 2002. "Cannabis Use and Mental Health in Young People: Cohort Study." *BMJ* 325 (7374): 1195–98. <https://doi.org/10.1136/bmj.325.7374.1195>.

⁶⁸ Department of Justice/Drug Enforcement Administration. 2020. "Marijuana/Cannabis." DEA. https://www.dea.gov/sites/default/files/2020-06/Marijuana-Cannabis-2020_0.pdf.

may have contributed to the discrepancy, suggesting a need for more in-depth and coordinated research to better understand the effects of medical cannabis. Consistent with evidence that genetic factors may moderate the effects of cannabis, further evidence suggests that genetic factors may moderate the psychological effects of cannabis use. In a five-year longitudinal study of 310 adolescents, cannabis use was associated with greater increases in depressive symptoms among individuals carrying the short 5-HTTLPR allele ($B = 0.34$, $\beta = .10$, $p < .001$), whereas no significant association was found among individuals without the short allele ($B = -1.38$, $\beta = -.14$, $p = .51$).⁶⁹ These findings illustrate how the effects of cannabis may vary according to individual biological factors, underscoring the need for more comprehensive research into its potential risks. Although medical cannabis may provide substantial therapeutic benefits and remain a valuable treatment option for many patients, researchers have not yet fully identified the circumstances under which its adverse effects are most likely to occur.

INSTITUTIONAL INERTIA AND CANNABIS REFORM

Despite the apparent need for legal reform, the federal government has been slow to pursue meaningful change. However, historical precedent demonstrates that it possesses the authority to reverse or amend the policies it previously enacted. For example, in the early twentieth century, prohibitionists spent years urging the government to ban alcohol, portraying it as a threat to public safety and a contributor to crime.⁷⁰ However, nationwide prohibition did not become politically feasible until the Anti-Saloon League (ASL) transformed the temperance movement into a political campaign that mobilized religious voters, pressured legislators, and helped elect prohibition-supporting candidates. The ratification of the Sixteenth Amendment in 1913 further aided the movement by reducing the federal government's dependence on alcohol-tax revenue.⁷¹ As tensions rose when America entered World War I, "ASL propaganda effectively connected beer and brewers with Germans and treason."⁷² As a result, public opinion rapidly shifted against alcohol, contributing to the federal government's passage of the Eighteenth Amendment, which prohibited its production, sale, and transportation. This tactic mirrors Anslinger's campaign in the 1930s, which similarly leveraged societal prejudice to sway public opinion and, consequently, influence public policy. Yet despite the supposed similarities in their situations, as both were banned following public protests and campaigns for criminalization, the effectiveness and speed of reversing each policy differed significantly.

When it came to repealing Prohibition, the federal government, under President Franklin D. Roosevelt, only took 9 months to fully end the ban on alcohol. Through a combination of public dissatisfaction with

⁶⁹ Sorkhou, Maryam, Eliza L Dent, and Tony P George. 2024. "Cannabis Use and Mood Disorders: A Systematic Review." *Frontiers in Public Health* 12 (April). <https://doi.org/10.3389/fpubh.2024.1346207>.

⁷⁰ "Prohibition: Years, Amendment and Definition - HISTORY." 2009. HISTORY. October 29, 2009. <https://www.history.com/articles/prohibition>.

⁷¹ Bishop-Henchman, Joseph. 2011. "How Taxes Enabled Alcohol Prohibition and Also Led to Its Repeal." Tax Foundation. October 5, 2011. <https://taxfoundation.org/blog/how-taxes-enabled-alcohol-prohibition-and-also-led-its-repeal/>.

⁷² Burns, Ken. 2022. "Roots of Prohibition | Prohibition | Ken Burns | PBS." Prohibition | Ken Burns | PBS. PBS. 2022. <https://www.pbs.org/kenburns/prohibition/roots-of-prohibition>.

Prohibition's failure to achieve its supporters' stated goals, rising crime, and, most importantly, the growing need for economic relief and job creation, FDR built a strong electoral platform and, following his election, moved quickly to end Prohibition.⁷³ By comparison, the federal initiative to reconsider cannabis's classification began in late 2022, yet nearly four years later, the process remains unresolved.⁷⁴ The contrast between these two policy reversals highlights the role of institutional inertia. Although public opinion can change rapidly, legal and bureaucratic systems often adapt much more slowly. Prohibition was primarily overturned through a constitutional amendment that removed a federal ban on alcohol production and sale. In contrast, cannabis regulation has become embedded throughout a network of federal institutions. As a result, reforming cannabis requires multiple agencies and branches of government to reconsider policies that have been built up over decades.

How Cannabis Reform Differs from Historical Precedents

When considering the differences between these two policy reversals, it is important to understand the full structural conditions under which each prohibition was dismantled. When Prohibition ended with the passage of the 21st Amendment, the question of amnesty for imprisoned bootleggers barely arose, because society continued to view them as smugglers, tax evaders, and gang affiliates who had knowingly broken the law.⁷⁵ Since democratic policy is shaped by public demand, and because there was no meaningful demand for criminal amnesty, the federal government did not need to pursue additional legislative actions that would have complicated the process. Furthermore, because the government urgently needed the tax revenue that legalization could provide, the executive branch had a strong incentive to push the process forward efficiently.⁷⁶ Cannabis reform, by contrast, is a far more complicated undertaking. Unlike Prohibition, the criminalization of cannabis resulted in a complete ban on personal possession and consumption, rather than merely on manufacture and sale.¹ As a result, decriminalizing cannabis requires the federal government to take into account the direct effects of the law on individuals themselves. More specifically, reform requires not only changes to the Controlled Substances Act, DEA scheduling, and FDA regulations, but also updates to research access, federal taxation, banking restrictions, housing eligibility, and criminal enforcement practices. The societal push for cannabis decriminalization is rooted in the injustices that citizens have experienced, including being denied access to pain relief and being subjected to decades of racially motivated enforcement. As a result, activists have increasingly demanded that reform include expungement and resentencing.⁷⁷

⁷³ "Repeal! — the End of Prohibition's 'Noble Experiment' - Roosevelt House Public Policy Institute at Hunter College." 2025. Roosevelt House Public Policy Institute at Hunter College. 2025.

<https://www.roosevelthouse.hunter.cuny.edu/events/repeal-end-prohibitions-noble-experiment/>.

⁷⁴ "Federal Marijuana Rescheduling | Moritz College of Law." 2025. Osu.edu. March 25, 2025.

<https://moritzlaw.osu.edu/faculty-and-research/drug-enforcement-and-policy-center/research-and-grants/policy-and-data-analyses/federal-marijuana-rescheduling>.

⁷⁵ Denig, Vicki. 2016. "Were Bootleggers Released When Prohibition Ended?" VinePair. December 7, 2016.

<https://vinepair.com/articles/violators-prohibition-serve-full-sentence-post-repeal/>.

⁷⁶ Greenspan, Jesse. 2019. "How the Misery of the Great Depression Helped Vanquish Prohibition | HISTORY." HISTORY. January 2, 2019. <https://www.history.com/articles/great-depression-economy-prohibition>.

⁷⁷ "What's at Stake for the Cannabis Industry?: Activism, Inclusion, and a Path Forward - Cannabis Creative Group." 2025. Cannabis Creative Group. February 12, 2025.

<https://cannabiscreative.com/blog/whats-at-stake-for-the-cannabis-industry-activism-inclusion-and-a-path-forward/>.

Scholars have documented how federal cannabis prohibition was used as a political tool to disproportionately target and incarcerate Black communities.⁷⁸ As a result, as discussions of racial inequality and the long-standing effects of prejudice against communities of color have become increasingly prominent, efforts toward decriminalization have increasingly incorporated demands for racial equity alongside the legal changes themselves. For example, the MORE Act, reintroduced by Representative Jerrold Nadler, couples decriminalization with mandatory expungement on the grounds that cannabis prosecution fell disproportionately on communities of color.⁷⁹ Unlike alcohol repeal, which focused narrowly on ending restrictions on production and sale, cannabis reform has consequently become intertwined with criminal justice reform, sentencing equity, public health policy, and social equity initiatives. Each of these factors involves separate legal frameworks and government agencies. Policymakers are therefore tasked not only with determining whether cannabis should be legalized, but also with addressing the long-term institutional consequences of decades of prohibition. This complication further contributes to policy inertia by requiring coordination across multiple branches and agencies rather than the repeal of a single restriction. Additionally, because there is no pressing motivation for the government to advance these changes, such as the need to generate federal revenue by taxing cannabis sales, policymakers and the federal government have little incentive to address these challenges efficiently.

CONCLUSION

The persistence of federal cannabis prohibition cannot be explained by scientific uncertainty alone. As the medical evidence reviewed here demonstrates, cannabis has documented therapeutic value across a range of conditions. FDA-approved derivatives like Epidiolex confirm that its components can meet federal standards of safety and efficacy. The potential medical benefits of cannabis also raise questions about its historical classification as a Schedule I controlled substance. Several opioids are classified under Schedule II because they have recognized medical uses despite their risks of dependence, respiratory depression, and fatal overdose. Cannabis does not need to provide pain relief as effectively as opioids to be recognized for its medical value. However, evidence that it can benefit certain patients under proper medical supervision challenges the claim that it has no accepted medical use.

Furthermore, federal health officials have found that cannabis generally produces fewer serious adverse outcomes than many substances classified under Schedules I and II. Therefore, its legal classification should more accurately reflect both its demonstrated medical benefits and its relative risks. Yet despite this evidence, and despite the growing support of the American public, federal reclassification has moved slowly. This is because the historical narratives that justified prohibition, which were rooted in racial

⁷⁸ Hudak, John. 2020. "Marijuana's Racist History Shows the Need for Comprehensive Drug Reform." Brookings. June 23, 2020.

<https://www.brookings.edu/articles/marijuanas-racist-history-shows-the-need-for-comprehensive-drug-reform/>.

⁷⁹ "Reps. Nadler, Titus, Omar, and Velázquez Reintroduce Comprehensive Marijuana Reform Legislation." 2025. Congressman Jerry Nadler. August 29, 2025.

<https://nadler.house.gov/news/documentsingle.aspx?DocumentID=397401>.

propaganda and fearmongering rather than medical science, have shaped legal policies that change far more slowly than public opinion. As a result, reform now requires not only new evidence but also the willingness of multiple agencies and branches of government to reconsider decades of accumulated policy, while simultaneously addressing the racial and criminal justice consequences that prohibition left behind. For the families who have watched loved ones suffer without legal access to pain relief, and for the communities that bore the heaviest burden of decades of enforcement, the pace of that reconsideration is not an abstract policy question.

FUTURE OUTLOOK

As research expands and public perception continues to shift, the future of medical cannabis in the United States will depend largely on whether federal policy can be brought into alignment with the growing body of scientific evidence. If cannabis is reclassified to Schedule III, federal barriers to research and pharmaceutical development will be significantly reduced, enabling more clinical trials and the development of standardized cannabis-based medications.⁸⁰ International models, such as those in Canada and Germany, may serve as useful regulatory frameworks as the United States navigates this transition.⁸¹ However, the path forward is not only a matter of updating drug scheduling. It also requires a broader institutional reckoning with the racial and criminal justice consequences of decades of prohibition, and a willingness on the part of multiple agencies and branches of government to reconsider policies that have accumulated over time. By moving past the historical narratives that shaped cannabis criminalization and the institutional structures that preserved them, the United States can increase investment in cannabinoid-based treatments and expand research into emerging applications in neurodegenerative diseases and mental health. In doing so, this approach would not only advance medical science but also begin to address the harms that prohibition has caused to the communities most affected by its enforcement.

⁸⁰ Collins, R Lorraine, Panayotis K Thanos, Rebecca Ashare, David Herzberg, and Robert Silverman. 2024. "Effects of the Federal Government's Move to Reschedule Cannabis: A Commentary." *Journal of Studies on Alcohol and Drugs*, October. <https://doi.org/10.15288/jsad.24-00346>.

⁸¹ Kalant, Harold. 2016. "A Critique of Cannabis Legalization Proposals in Canada." *International Journal of Drug Policy* 34 (August): 5–10. <https://doi.org/10.1016/j.drugpo.2016.05.002>.

REFERENCES

- “About Cannabis Policy | APIS - Alcohol Policy Information System.” n.d. Alcoholpolicy.niaaa.nih.gov. <https://alcoholpolicy.niaaa.nih.gov/about/about-cannabis-policy>.
- “ACLU Criminal Law Reform Project.” 2012. American Civil Liberties Union. October 24, 2012. <https://www.aclu.org/documents/aclu-criminal-law-reform-project>.
- Administrator. 2024. “Cannabis as Medicine for Healthcare Providers.” University of San Diego - Professional & Continuing Education. November 2024. <https://pce.sandiego.edu/medical-use-cannabis/>.
- Ahmed, Saeed, Robert M. Roth, Corneliu N. Stanciu, and Mary F. Brunette. 2021. “The Impact of THC and CBD in Schizophrenia: A Systematic Review.” *Frontiers in Psychiatry* 12 (July). <https://doi.org/10.3389/fpsyt.2021.694394>.
- Al-Khazaleh, Ahmad K., Xian Zhou, Deep Jyoti Bhuyan, Gerald W. Münch, Elaf Adel Al-Dalabeeh, Kayla Jaye, and Dennis Chang. 2024. “The Neurotherapeutic Arsenal in Cannabis Sativa: Insights into Anti-Neuroinflammatory and Neuroprotective Activity and Potential Entourage Effects.” *Molecules (Basel, Switzerland)* 29 (2): 410. <https://doi.org/10.3390/molecules29020410>.
- Ang, Samuel P., Shawn Sidharthan, Wilson Lai, Nasir Hussain, Kiran V. Patel, Amitabh Gulati, Onyeaka Henry, Alan D. Kaye, and Vwaire Orhurhu. 2023. “Cannabinoids as a Potential Alternative to Opioids in the Management of Various Pain Subtypes: Benefits, Limitations, and Risks.” *Pain and Therapy*, January. <https://doi.org/10.1007/s40122-022-00465-y>.
- ArcGIS. (2026). Arcgis.Com. <https://www.arcgis.com/home/item.html?id=03b6ffb7ac6c41cc97b6ffcbbc53715b>
- Associate Editor. 2026. “Changes to Cannabis Laws Have Not Reduced Racial Disparities in Arrests | the Journal of Blacks in Higher Education.” The Journal of Blacks in Higher Education. May 18, 2026. <https://jbhe.com/2026/05/changes-to-cannabis-laws-have-not-reduced-racial-disparities-in-arrests/>.
- Bishop-Henchman, Joseph. 2011. “How Taxes Enabled Alcohol Prohibition and Also Led to Its Repeal.” Tax Foundation. October 5, 2011. <https://taxfoundation.org/blog/how-taxes-enabled-alcohol-prohibition-and-also-led-its-repeal/>.
- Bodine, Michael, and Alysia K Kemp. 2022. “Medical Cannabis Use in Oncology.” Nih.gov. StatPearls Publishing. January 19, 2022. <https://www.ncbi.nlm.nih.gov/books/NBK572067/>.
- Bridgeman, Mary Barna, and Daniel T Abazia. 2017. “Medicinal Cannabis: History, Pharmacology, and Implications for the Acute Care Setting.” *P & T : A Peer-Reviewed Journal for Formulary Management* 42 (3): 180–88. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5312634/>.
- Britannica, T. Editors of Encyclopaedia. 2024. “Controlled Substances Act | History & Summary | Britannica.” Wwww.britannica.com. December 18, 2024. <https://www.britannica.com/topic/Controlled-Substances-Act>.
- Bryan, Kate. 2024. “Cannabis Overview.” Wwww.ncsl.org. June 20, 2024. <https://www.ncsl.org/civil-and-criminal-justice/cannabis-overview>.

- Burns, Ken. 2022. "Roots of Prohibition | Prohibition | Ken Burns | PBS." Prohibition | Ken Burns | PBS. PBS. 2022. <https://www.pbs.org/kenburns/prohibition/roots-of-prohibition>.
- Caldarone, Justin P. 2024. "Justin P. Caldarone." The Caldarone Law Group, P.A. October 10, 2024. <https://www.caldaronelawgroup.com/blog/how-can-drug-charges-affect-my-housing-options/>.
- CDC. 2024c. "Cannabis and Teens." Cannabis and Public Health. February 26, 2024. <https://www.cdc.gov/cannabis/health-effects/cannabis-and-teens.html>.
- Clark, Bradford. 2003. "The Supremacy Clause as a Constraint on Federal Power." *GW Law Faculty Publications & Other Works*, January. https://scholarship.law.gwu.edu/faculty_publications/439/.
- Collins, R Lorraine, Panayotis K Thanos, Rebecca Ashare, David Herzberg, and Robert Silverman. 2024. "Effects of the Federal Government's Move to Reschedule Cannabis: A Commentary." *Journal of Studies on Alcohol and Drugs*, October. <https://doi.org/10.15288/jsad.24-00346>.
- Constitution Annotated. 2014. "Federalism and the Constitution | Constitution Annotated | Congress.gov | Library of Congress." Congress.gov. 2014. https://constitution.congress.gov/browse/essay/intro.7-3/ALDE_00000032/.
- Davies, Cathy, and Sagnik Bhattacharyya. 2019. "Cannabidiol as a Potential Treatment for Psychosis." *Therapeutic Advances in Psychopharmacology* 9 (January): 204512531988191. <https://doi.org/10.1177/2045125319881916>.
- Denig, Vicki. 2016. "Were Bootleggers Released When Prohibition Ended?" VinePair. December 7, 2016. <https://vinepair.com/articles/violators-prohibition-serve-full-sentence-post-repeal/>.
- Department of Justice/Drug Enforcement Administration . 2020. "Marijuana/Cannabis." DEA. https://www.dea.gov/sites/default/files/2020-06/Marijuana-Cannabis-2020_0.pdf.
- Dominik Duczmal, Aleksandra Bazan-Wozniak, Krystyna Niedzielska, and Robert Pietrzak. 2024. "Cannabinoids—Multifunctional Compounds, Applications and Challenges—Mini Review." *Molecules* 29 (20): 4923–23. <https://doi.org/10.3390/molecules29204923>.
- Dowell, Deborah, Kathleen Ragan, Christopher Jones, Grant Baldwin, and Roger Chou. 2022. "Cdc Clinical Practice Guideline for Prescribing Opioids for Pain." *MMWR. Recommendations and Reports* 71 (3): 1–95. <https://doi.org/10.15585/mmwr.rr7103a1>.
- Edwards, Ezekiel, Emily Greytak, Brooke Madubonwu, et al. n.d. "A Tale of Two Countries Racially Targeted Arrests in the Era of Marijuana Reform ACLU RESEARCH REPORT." In ACLU, edited by Rebecca McCray. Accessed July 28, 2026. https://www.aclu.org/sites/default/files/field_document/tale_of_two_countries_racially_targeted_arrests_in_the_era_of_marijuana_reform_revised_7.1.20_0.pdf.
- Esmaili, Aryan, Clara Dismuke-Greer, Terri K Pogoda, Megan E Amuan, Carla Garcia, Ariana Del Negro, Maddy Myers, Eamonn Kennedy, David Cifu, and Mary Jo Pugh. 2024. "Cannabis Use Disorder Contributes to Cognitive Dysfunction in Veterans with Traumatic Brain Injury." *Frontiers in Neurology* 15 (January). <https://doi.org/10.3389/fneur.2024.1261249>.
- "Federal Marijuana Rescheduling | Moritz College of Law." 2025. Osu.edu. March 25, 2025. <https://moritzlaw.osu.edu/faculty-and-research/drug-enforcement-and-policy-center/research-and-grants/policy-and-data-analyses/federal-marijuana-rescheduling>.
- Fleming, Charles B., W. Alex Mason, James J. Mazza, Robert D. Abbott, and Richard F. Catalano. 2008. "Latent Growth Modeling of the Relationship between Depressive Symptoms and Substance Use

- during Adolescence.” *Psychology of Addictive Behaviors* 22 (2): 186–97.
<https://doi.org/10.1037/0893-164x.22.2.186>.
- Friedman, Brett, Joshua Oyster, David Peloquin, and Emily Frutcherman. 2024. “DOJ Proposes Rescheduling Marijuana, but the Outlook for Finalization Is Hazy | Insights | Ropes & Gray LLP.” www.ropesgray.com. May 29, 2024.
<https://www.ropesgray.com/en/insights/alerts/2024/05/doj-proposes-rescheduling-marijuana-but-the-outlook-for-finalization-is-hazy>.
- Greenspan, Jesse. 2019. “How the Misery of the Great Depression Helped Vanquish Prohibition | HISTORY.” *HISTORY*. January 2, 2019.
<https://www.history.com/articles/great-depression-economy-prohibition>.
- Hashmall, Joe. 2017. “Supremacy Clause.” Legal Information Institute. June 5, 2017.
https://www.law.cornell.edu/wex/supremacy_clause.
- Hudak, John. 2020. “Marijuana’s Racist History Shows the Need for Comprehensive Drug Reform.” *Brookings*. June 23, 2020.
<https://www.brookings.edu/articles/marijuanas-racist-history-shows-the-need-for-comprehensive-drug-reform/>.
- Ioana Creanga-Murariu, Leontina-Elena Filipiuc, Maria-Raluca Gogu, Mitica Ciorpac, Carmen Marinela Cumpat, Bogdan-Ionel Tamba, and Teodora Alexa-Stratulat. 2024. “The Potential Neuroprotective Effects of Cannabinoids against Paclitaxel-Induced Peripheral Neuropathy: In Vitro Study on Neurite Outgrowth.” *Frontiers in Pharmacology* 15 (June).
<https://doi.org/10.3389/fphar.2024.1395951>.
- “Is Cannabis Legal in the US? | Medical Marijuana Laws.” 2024. *Cancer.org*. 2024.
<https://www.cancer.org/cancer/managing-cancer/treatment-types/complementary-and-integrative-medicine/marijuana-and-cancer/is-cannabis-legal>.
- Jeddi, Haron M., Jason W. Busse, Behnam Sadeghirad, et al. 2024. “Cannabis for Medical Use Versus Opioids for Chronic Non-Cancer Pain: A Systematic Review and Network Meta-Analysis of Randomised Clinical Trials.” *BMJ Open* 14 (1): e068182.
<https://doi.org/10.1136/bmjopen-2022-068182>.
- Johnson, Kennadi, Abby J Weldon, and Melissa A Burmeister. 2024. “Differential Effects of Cannabis Constituents on Schizophrenia-Related Psychosis: A Rationale for Incorporating Cannabidiol into a Schizophrenia Therapeutic Regimen.” *Frontiers in Psychiatry* 15 (April).
<https://doi.org/10.3389/fpsy.2024.1386263>.
- Johnson, Jeremy R., Mary Burnell-Nugent, Dominique Lossignol, Elena Doina Ganae-Motan, Richard Potts, and Marie T. Fallon. 2010. “Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel-Group Study of the Efficacy, Safety, and Tolerability of THC:CBD Extract and THC Extract in Patients With Intractable Cancer-Related Pain.” *Journal of Pain and Symptom Management* 39 (2): 167–79. <https://doi.org/10.1016/j.jpainsymman.2009.06.008>.
- Jussi Jylkkä, Aleks Hupli, Aleksandra Nikolaeva, Sandra Alanen, Anna Erika Back, Sara Lindqvist, Andreas Krabbe, Maya Lavie-Ajayi, and Oskari Kantonen. 2023. “The Holistic Effects of Medical Cannabis Compared to Opioids on Pain Experience in Finnish Patients with Chronic Pain.” *Journal of Cannabis Research* 5 (1). <https://doi.org/10.1186/s42238-023-00207-7>.

- Kalant, Harold. 2016. "A Critique of Cannabis Legalization Proposals in Canada." *International Journal of Drug Policy* 34 (August): 5–10. <https://doi.org/10.1016/j.drugpo.2016.05.002>.
- Khalid, Noman, and Abhishek Singh. 2022. "Cannabis versus Opioids for Pain." Nih.gov. StatPearls Publishing. January 25, 2022. <https://www.ncbi.nlm.nih.gov/books/NBK573080/>.
- Lamanna-Rama, Nicolás, Diego Romero-Miguel, Marta Casquero-Veiga, Karina S. MacDowell, Cristina Santa-Marta, Sonia Torres-Sánchez, Esther Berrocoso, Juan C Leza, Manuel Desco, and María Luisa Soto-Montenegro. 2023. "o Behavioural Schizophrenia-like Deficits That CBD Fails to Overcome: A Comprehensive Multilevel Approach Using the Poly I:C Maternal Immune Activation." *Psychiatry Research*, November, 115643. <https://doi.org/10.1016/j.psychres.2023.115643>.
- Lapham, Gwen T., Theresa E. Matson, Jennifer F. Bobb, Casey Luce, Malia M. Oliver, Leah K. Hamilton, and Katharine A. Bradley. 2023. "Prevalence of Cannabis Use Disorder and Reasons for Use among Adults in a US State Where Recreational Cannabis Use Is Legal." *JAMA Network Open* 6 (8): e2328934. <https://doi.org/10.1001/jamanetworkopen.2023.28934>.
- Leinen, Zach J., Rahul Mohan, Lakmini S. Premadasa, Arpan Acharya, Mahesh Mohan, and Siddappa N. Byrareddy. 2023. "Therapeutic Potential of Cannabis: A Comprehensive Review of Current and Future Applications." *Biomedicines* 11 (10): 2630. <https://doi.org/10.3390/biomedicines11102630>.
- Library of Congress. 1787. "U.S. Constitution - Article I | Resources | Constitution Annotated | Congress.gov | Library of Congress." Constitution.congress.gov. 1787. <https://constitution.congress.gov/constitution/article-1/>.
- "Living Systematic Review on Cannabis and Other Plant-Based Treatments for Chronic Pain | Effective Health Care Program." n.d. In Effectivehealthcare.Ahrq.Gov. Accessed July 29, 2026. <https://effectivehealthcare.ahrq.gov/products/plant-based-chronic-pain-treatment/living-review>.
- Manfredi, Richard. 2026. "DEA Downschedules State Medical Marijuana to Schedule III; Expedited Hearing Set to Consider Broader Rescheduling." Gibson Dunn. April 29, 2026. <http://www.gibsondunn.com/dea-downschedules-state-medical-marijuana-to-schedule-iii-expedited-hearing-set-to-consider-broader-rescheduling>.
- "Marijuana Law Reform." n.d. American Civil Liberties Union. <https://www.aclu.org/issues/criminal-law-reform/drug-law-reform/marijuana-law-reform>.
- Marijuana Policy Project. 2019. "2019 Marijuana Policy Reform Legislation." MPP. MPP. 2019. <https://www.mpp.org/issues/legislation/key-marijuana-policy-reform/>.
- Mayo Clinic . 2024. "What You Can Expect from Medical Marijuana." Mayo Clinic. May 30, 2024. <https://www.mayoclinic.org/healthy-lifestyle/consumer-health/in-depth/medical-marijuana/art-20137855>.
- Miller, Zeke, Joshua Goodman, Jim Mustian, and Lindsay Whitehurst. 2024. "US Drug Control Agency Will Move to Reclassify Marijuana in a Historic Shift, AP Sources Say." AP News. April 30, 2024. <https://apnews.com/article/marijuana-biden-dea-criminal-justice-pot-f833a8dae6ceb31a8658a5d65832a3b8>.

- MMTC. 2020. "Top Ways to Consume Medical Marijuana." MMTC. June 16, 2020.
<https://www.mmtcfl.com/blog/top-ways-to-consume-medical-marijuana/>.
- NAACP. 2025. "The Origins of Modern Day Policing." Naacp.org. NAACP. 2025.
<https://naacp.org/find-resources/history-explained/origins-modern-day-policing>.
- National Institutes of Health. 2023. "Young Men at Highest Risk of Schizophrenia Linked with Cannabis Use Disorder." National Institutes of Health (NIH). May 4, 2023.
<https://www.nih.gov/news-events/news-releases/young-men-highest-risk-schizophrenia-linked-cannabis-use-disorder>.
- National Library of Medicine. 2017. "Therapeutic Effects of Cannabis and Cannabinoids." Nih.gov. National Academies Press (US). 2017. <https://www.ncbi.nlm.nih.gov/books/NBK425767/>.
- Noori, Atefeh, Anna Miroshnychenko, Yaadwinder Shergill, et al. 2021. "Opioid-Sparing Effects of Medical Cannabis or Cannabinoids for Chronic Pain: A Systematic Review and Meta-Analysis of Randomised and Observational Studies." *BMJ Open* 11 (7): e047717.
<https://doi.org/10.1136/bmjopen-2020-047717>.
- Patel, Rikinkumar S, Saher Kamil, Mansi R Shah, Narmada Neerja Bhimanadham, and Sundus Imran. 2019. "Pros and Cons of Marijuana in Treatment of Parkinson's Disease." *Cureus* 11 (6).
<https://doi.org/10.7759/cureus.4813>.
- Patel, Shweta J, Sahar Khan, Saipavankumar M, and Pousettef Hamid. 2020. "The Association between Cannabis Use and Schizophrenia: Causative or Curative? A Systematic Review." *Cureus* 12 (7).
<https://doi.org/10.7759/cureus.9309>.
- Patton, G. C. 2002. "Cannabis Use and Mental Health in Young People: Cohort Study." *BMJ* 325 (7374): 1195–98. <https://doi.org/10.1136/bmj.325.7374.1195>.
- PBS NewsHour. 2019. "Why so Many Americans Now Support Legalizing Marijuana, in 4 Charts." PBS NewsHour. February 5, 2019.
<https://www.pbs.org/newshour/science/why-so-many-americans-now-support-legalizing-marijuana-in-4-charts>.
- Pew Research Center. 2024. "Most Americans Favor Legalizing Marijuana for Medical, Recreational Use." Pew Research Center - U.S. Politics & Policy. Pew Research Center. March 26, 2024.
<https://www.pewresearch.org/politics/2024/03/26/most-americans-favor-legalizing-marijuana-for-medical-recreational-use/>.
- Pigott, Stacy. 2024. "Study Shows Cannabis Terpenes May Relieve Chemotherapy-Induced Neuropathic Pain." The University of Arizona Health Sciences. May 28, 2024.
<https://healthsciences.arizona.edu/news/releases/study-shows-cannabis-terpenes-may-relieve-chemotherapy-induced-neuropathic-pain>.
- Pope, Carmen. 2024. "Epidiolex: Side Effects, Dosage & Uses." Drugs.com. August 24, 2024.
<https://www.drugs.com/epidiolex.html>.
- "Prohibition: Years, Amendment and Definition - HISTORY." 2009. HISTORY. October 29, 2009.
<https://www.history.com/articles/prohibition>.
- Rabgay, Karma, Neti Waranuch, Nathorn Chaiyakunapruk, Ratre Sawangjit, Kornkanok Ingkaninan, and Piyameth Dilokthornsakul. 2020. "The Effects of Cannabis, Cannabinoids, and Their Administration Routes on Pain Control Efficacy and Safety: A Systematic Review and Network

- Meta-Analysis.” *Journal of the American Pharmacists Association* 60 (1): 225-234.e6.
<https://doi.org/10.1016/j.japh.2019.07.015>.
- Reiman, Amanda, Mark Welty, and Perry Solomon. 2017. “Cannabis as a Substitute for Opioid-Based Pain Medication: Patient Self-Report.” *Cannabis and Cannabinoid Research* 2 (1): 160–66.
<https://doi.org/10.1089/can.2017.0012>.
- “Repeal! — the End of Prohibition’s ‘Noble Experiment’ - Roosevelt House Public Policy Institute at Hunter College.” 2025. Roosevelt House Public Policy Institute at Hunter College. 2025.
<https://www.roosevelthouse.hunter.cuny.edu/events/repeal-end-prohibitions-noble-experiment/>.
- “Reps. Nadler, Titus, Omar, and Velázquez Reintroduce Comprehensive Marijuana Reform Legislation.” 2025. Congressman Jerry Nadler. August 29, 2025.
<https://nadler.house.gov/news/documentsingle.aspx?DocumentID=397401>.
- Sidebari, Legal. 2024. “CRS Legal Sidebar Prepared for Members and Committees of Congress Legal Consequences of Rescheduling Marijuana.”
<https://crsreports.congress.gov/product/pdf/LSB/LSB11105>.
- Sorkhou, Maryam, Eliza L Dent, and Tony P George. 2024. “Cannabis Use and Mood Disorders: A Systematic Review.” *Frontiers in Public Health* 12 (April).
<https://doi.org/10.3389/fpubh.2024.1346207>.
- Stauffer, Brian. 2017. “Every 25 Seconds | the Human Toll of Criminalizing Drug Use in the United States.” In Human Rights Watch.
<https://www.hrw.org/report/2016/10/12/every-25-seconds/human-toll-criminalizing-drug-use-unit-ed-states>.
- Steigerwald, Stacey, Beth E. Cohen, Marzieh Vali, Deborah Hasin, Magdalena Cerda, and Salomeh Keyhani. 2019. “Differences in Opinions about Marijuana Use and Prevalence of Use by State Legalization Status.” *Journal of Addiction Medicine* 14 (4): 1.
<https://doi.org/10.1097/adm.0000000000000593>.
- Texas State Board of Pharmacy. 2014. “Controlled Drugs.” Texas.gov. 2014.
<https://www.pharmacy.texas.gov/consumer/broch2.asp>.
- “The War on Marijuana in Black and White | American Civil Liberties Union.” 2024. American Civil Liberties Union. October 30, 2024.
<https://www.aclu.org/the-war-on-marijuana-in-black-and-white#marijuana-arrests-by-the-numbers>.
- Überall, Michael A. 2020. “A Review of Scientific Evidence for THC:CBD Oromucosal Spray (Nabiximols) in the Management of Chronic Pain.” *Journal of Pain Research* 13 (February): 399–410. <https://doi.org/10.2147/JPR.S240011>.
- United States Drug Enforcement Administration. 2019. “Marijuana.” Dea.gov. 2019.
<https://www.dea.gov/factsheets/marijuana>.
- . n.d. “The Controlled Substances Act.” Wwww.dea.gov. <https://www.dea.gov/drug-information/csa>.
- United States Drug Enforcement Administration. 2018. “Drug Scheduling.” Wwww.dea.gov. United States Drug Enforcement Administration. July 10, 2018.
<https://www.dea.gov/drug-information/drug-scheduling>.

- United States Sentencing Commission. 2023. "2023 Demographic Differences in Federal Sentencing." In United States Sentencing Commission. United States Sentencing Commission.
<https://www.ussc.gov/research/research-reports/2023-demographic-differences-federal-sentencing>
- "What's at Stake for the Cannabis Industry?: Activism, Inclusion, and a Path Forward - Cannabis Creative Group." 2025. Cannabis Creative Group. February 12, 2025.
<https://cannabiscreative.com/blog/whats-at-stake-for-the-cannabis-industry-activism-inclusion-and-a-path-forward/>.
- "Where Marijuana Is Legal in the United States." 2022. MJBizDaily. 2022.
<https://mjbizdaily.com/map-of-us-marijuana-legalization-by-state/>.
- WHO. 2019. "WHO Guidelines for the Pharmacological and Radiotherapeutic Management of Cancer Pain in Adults and Adolescents." In Wwww.Who.Int.
<https://www.who.int/publications/i/item/9789241550390>