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Cannabis in Long-Term Care Communities

Written by HealthDirect Pharmacy Services

As the number of states permitting the use of medical marijuana continues to rise, and the use of cannabidiol, or CBD, products continue to grow in popularity, it is crucial to understand: the connection and differences of hemp, CBD, and marijuana, how they work in the body, the legalities surrounding them, and considerations for use in Long-Term Care (LTC) communities.

Contents

What is cannabis?[1]

Cannabis refers to a genus of plants which has three species: sativa, indica, and ruderalis. Each contains chemicals called cannabinoids. Two of the best known are cannabidiol (CBD) and delta-9-tetrahydrocannabinol (THC). CBD is a non-intoxicating compound found in cannabis, and THC is the active chemical in marijuana that produces the intoxication, or "high." CBD and THC are not the only cannabinoids found in cannabis; there are more than 100 known cannabinoids, but most are far less abundant within the plant than THC and CBD.

CBD

non-intoxicating compound found in cannabis

THC

active chemical in marijuana that produces the intoxication

HEMP

used to make clothing, textiles, food, and other materials

MARIJUANA

produced for medical and recreational purposes

So, if both CBD and THC are found in cannabis, what is the difference between hemp and marijuana?

The main factor determining the difference between the two is the amount of THC (tetrahydrocannabinol) present. There is a difference in the chemical makeup resulting in a marked difference in the quality of intoxication or "high" that hemp and marijuana provide. Hemp and marijuana can also be differentiated based on their usages. Hemp is a variety of cannabis sativa grown as an industrial crop commonly used to make clothing, textiles, food, and other materials. In contrast, marijuana is produced for medical and recreational purposes.

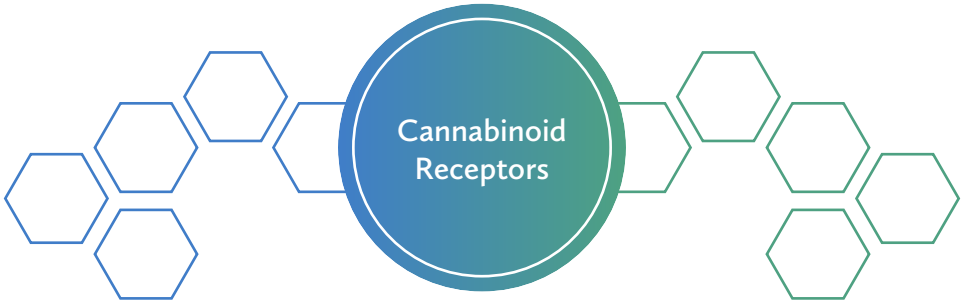
Cannabis and the body

All mammals have a chemical signaling system, called the endocannabinoid system. This system is found throughout brain and body and consists of cannabinoid receptors and chemicals made by the body called endocannabinoids. They are found in a multitude of places: the central nervous system, immune system, gastrointestinal tract, cardiovascular system, liver, urinary tract, endocrine glands, and reproductive organs.

The actions of the endocannabinoids keep the body's systems and organs working in concert with one another.

Cannabinoids derived from cannabis plants, such as THC and CBD, are called phytocannabinoids. Although these are distinct from the endocannabinoids we produce naturally, to our body, they look similar. Because of this, phytocannabinoids can connect to the control circuits that regulate body processes such as stress, appetite, sleep, immune system, pain perception, and metabolism. Each cannabinoid has a different molecular structure, which impacts how they connect to the receptors and their effects on the body.

It has been confirmed that endocannabinoids also interact with other receptor systems in the body. Preliminary scientific evidence suggests that cannabinoids can also interact with opioid, dopamine, and serotonin receptors, which means cannabis could have a wide range of potential benefits. THC and CBD are not the only cannabinoids that are being studied for their potential medicinal properties; others include cannabigerol (CBG), cannabinol (CBN), cannabichromene (CBC), and tetrahydrocannabivarin (THCV).[2, 3]



ENDOCANNABINOIDS

Chemicals produced naturally in the body

PHYTOCANNABINOIDS

Cannabinoids derived from cannabis plants

Legality[4]

Cannabis and its derivatives had been federally illegal since 1937.

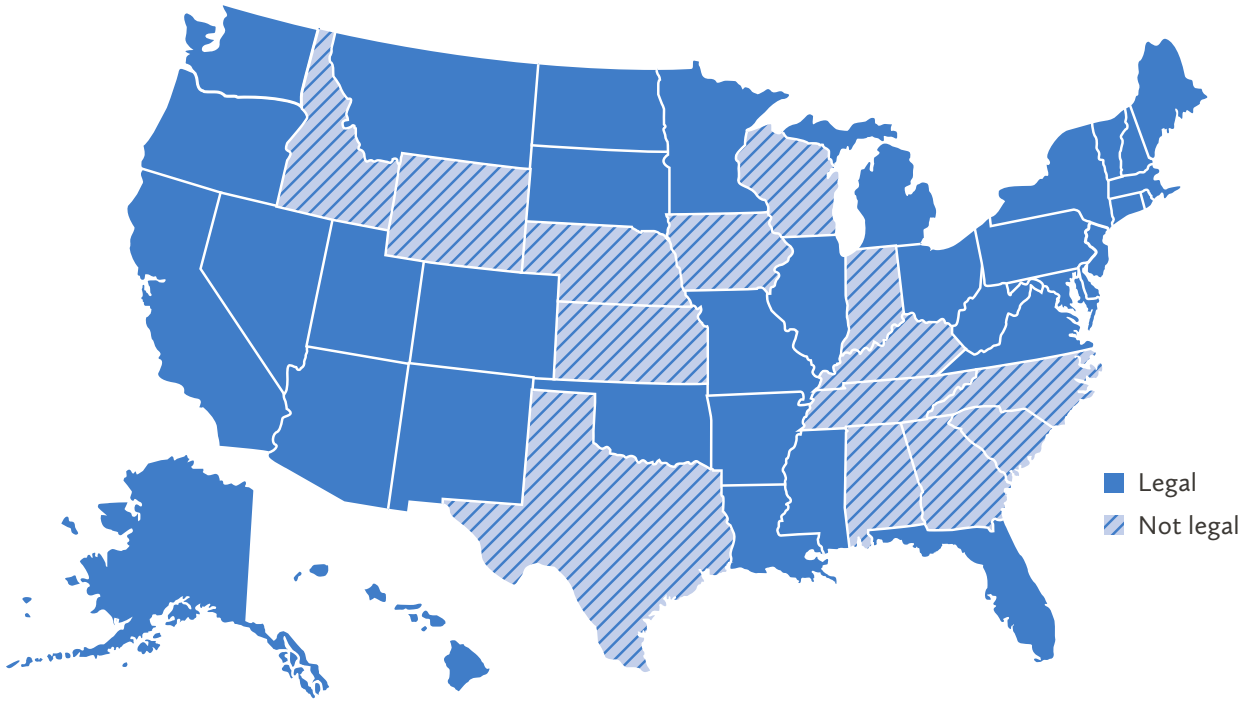
The Controlled Substance Act deemed that "every compound, manufacture, salt, derivative, mixture, or preparation of the plant cannabis sativa" to be a schedule I controlled substance. This changed in December 2018 when President Trump signed into law the Agricultural Improvement Act of 2018 (aka The Farm Bill). The Act removed hemp from the Controlled Substances Act. The federal government now considers cannabis with less than 0.3% THC to be legally classified as "hemp." CBD derived from cannabis and marijuana (medical or recreational) remains illegal and is classified as a schedule I controlled substance (same as heroin and LSD).

So, CBD is legal if it's derived from hemp, right?

Maybe, but not always, due to each state having individual laws on hemp and CBD. In states that allow the legal sale of hemp-derived CBD, there may be restrictions at the local health department level.

Even though federally illegal, 36 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands have made medical marijuana legally available to people with state-specified "qualifying conditions," and 15 states plus Washington, D.C. have legalized recreational usage.

States with legal medical marijuana use



Qualifications for medical cannabis use vary by state.

The list below contains common state-approved qualifying conditions. The terms and conditions determined at the state level are subject to continual revision. Many other conditions are approved in several states. Also, multiple states give physicians the freedom to decide if their patients can benefit from medical cannabis. This allows the patient to gain certification to use medical cannabis if their condition is not explicitly listed in state law.[5]

- Alzheimer's disease
- Amyotrophic Lateral Sclerosis (ALS)
- cachexia/wasting syndrome
- cancer
- chronic pain
- Crohn's disease
- epilepsy/seizures
- glaucoma
- hepatitis C
- HIV/AIDS
- muscle spasticity (multiple sclerosis, spinal cord injury, other causes)
- nausea/vomiting (from chemotherapy)
- Parkinson's disease
- post-traumatic stress disorder (PTSD)
- terminal illness (palliative care)

MULTIPLE STATES
give physicians the freedom to decide if their patients can benefit from medical cannabis.

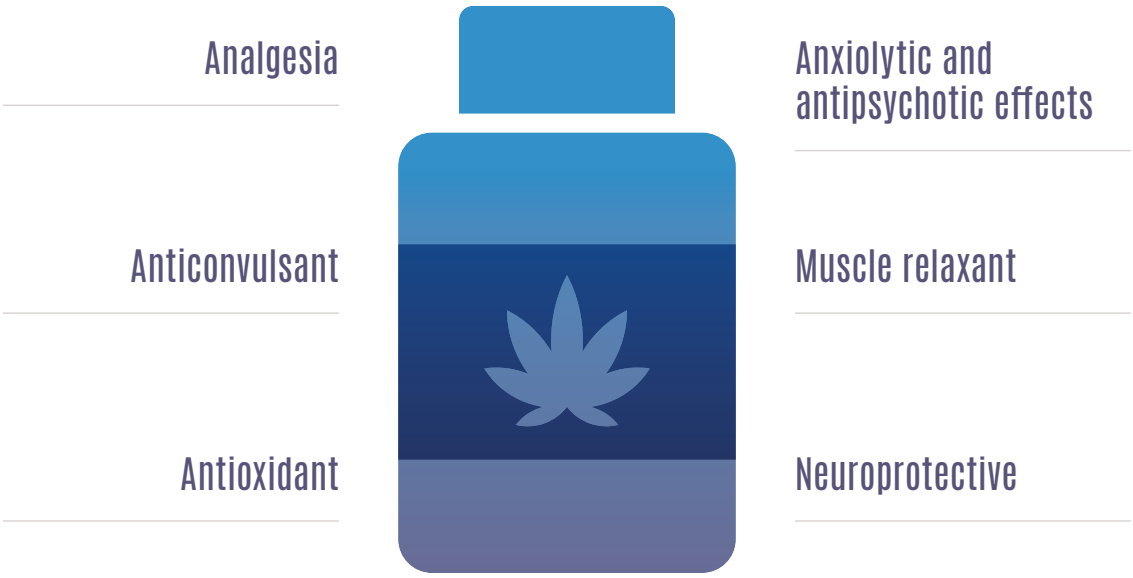
CBD

Even though scientists have been studying CBD since the 1970s, for many of us, it appears as if overnight CBD went from obscurity to being sold almost everywhere (if you live in a state where it is legal). You can purchase CBD-infused products in multiple forms: oils, creams, cosmetics, candies, beverages, and vape liquid, to name a few.

According to a 2018 report published by the World Health Organization (WHO), CBD seems to be a promising treatment for several medical conditions.[3]

It appears to be well tolerated, has a good safety profile, and doesn't appear to be a risk for abuse, dependence, or other public-health related problems. However, caution should still be taken in use as there is a lack of definitive clinical evidence on concentrated CBD's safety and efficacy.

As previously mentioned, CBD influences cannabinoid receptor activity of the body's endocannabinoid system, and preliminary research is finding that CBD can also interact with opioid, dopamine, and serotonin receptors. The ability of CBD to interact with many different systems throughout the body suggests it has the potential to provide a significant number of benefits, including:[3]



Side-effects

Just as there is a lack of conclusive evidence on the benefits, the same is true about the side-effects. The only CBD product that has been approved by The U.S. Food and Drug Administration (FDA) is the prescription treatment Epidiolex, which treats two rare, severe forms of epilepsy.

The most concrete evidence we have on the side effects of CBD comes from the Epidiolex clinical trials. It is important to note that participants were given high doses of pure CBD, some of which were higher than what is typically found in an entire bottle of CBD oil. The most common side effects experienced by participants were:[6]

Decreased appetite

Gastrointestinal problems

Dizziness, drowsiness, fatigue

Altered liver enzymes

Epidiolex is currently the only CBD product to have FDA approval.

All other hemp-derived CBD products are sold as supplements, and the U.S. supplement market is highly unregulated. Very different side effects could be experienced if products are purchased from unsafe or dishonest manufacturers, and there are plenty of them out there. In 2016, a group of scientists tested various publicly available CBD products in multiple delivery formats.[7]

The results are shocking – almost 70% of the products tested did not contain the amount of CBD listed on the label.

In addition to inaccurate labeling, unreliable products can include:[7]

- ✔ Pesticides and heavy metals from poor farming practices
- ✔ High levels of THC (more than desired)
- ✔ Synthetic cannabinoids
- ✔ Contaminates such as mold, bacteria, rancidity, etc.

Best practices for purchasing

It is essential to do your research before purchasing CBD products. Here are some suggestions for best practices when purchasing:[8]

If medical (or recreational) marijuana is permitted in your state, consider purchasing CBD products from a licensed dispensary as they are regulated.

Buy from a brand that has a Certificate of Analysis (COA) from an independent lab.

Make sure the manufacturer meets high scientific ISO 17025 standards.

Purchase from a producer that maintains a U.S. Hemp Authority® Certification. This designation speaks to quality standards and indicates that products are indeed derived from hemp.

Only purchase products that are grown and produced domestically. If possible, purchase products from a state where recreational cannabis use is legal as these states typically have more robust regulations and purity testing standards.

How CBD is metabolized and potential drug interactions[9]

CBD is metabolized in the liver, mainly by CYP2C19 and CYP3A4 liver enzymes. Many other prescription and OTC medications are also metabolized via these enzymes, so drug-drug interactions may occur when given with CBD. Below are some examples of drug interactions (not all-inclusive):

CBD MAY INCREASE

levels of carisoprodol, citalopram, clopidogrel, diazepam, phenytoin, proton pump inhibitors (PPIs), valproic acid, and warfarin.

CBD MAY DECREASE

levels of amlodipine, atorvastatin, buprenorphine, bupropion, diltiazem, eplerenone, fentanyl, loperamide, midazolam, paclitaxel, pioglitazone, sildenafil, solifenacin, tamsulosin, testosterone, topiramate, zolpidem, and other 3A4 substrates.

SYNERGISTIC EFFECTS

can also occur when CBD is used with other Central Nervous System (CNS) depressants such as barbiturates, benzodiazepines, and opioids, increasing the risk of sedation and other CNS depressant effects.

Allowing CBD usage in your long-term care (LTC) facility

According to a study by Gallup, one in seven adults uses CBD products.[10] So, it's no wonder that LTC communities are experiencing residents coming in with or wanting to add CBD to their medication regimen. There is much to consider when contemplating permitting use in your facility. First and foremost, know your state's laws relating to CBD's legality and any regulations surrounding who can administer.

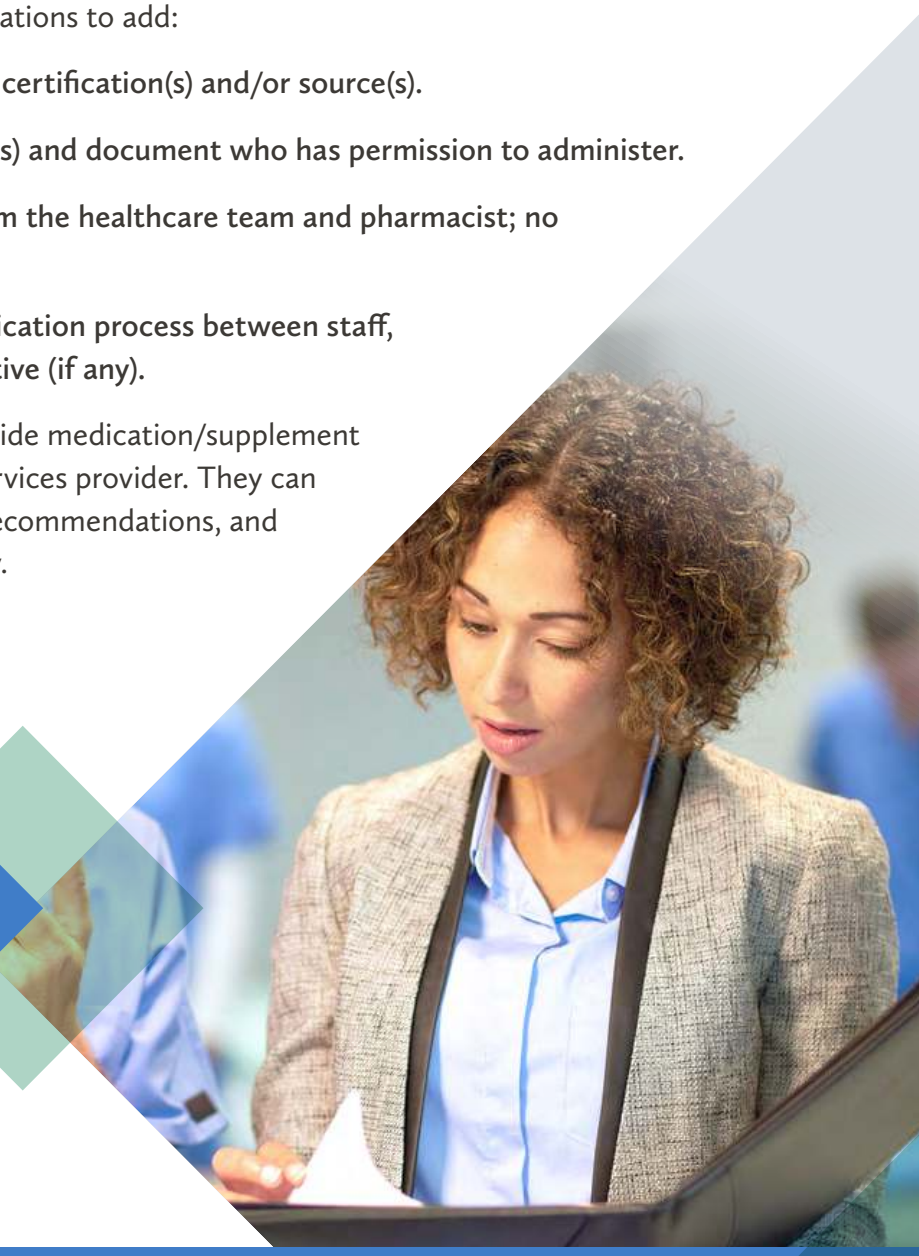
Should you choose to allow the use, it is recommended that you add CBD specific rules to your outside medication/supplement policy.

Here are some suggestions on qualifications to add:

- **Require products to have specific certification(s) and/or source(s).**
- **Decide (based on state regulations) and document who has permission to administer.**
- **Mandate review and approval from the healthcare team and pharmacist; no approval, no use.**
- **Establish a documented communication process between staff, resident, and resident representative (if any).**

If you do not have an established outside medication/supplement policy, reach out to your pharmacy services provider. They can provide you with the pros and cons, recommendations, and guidance needed to create your policy.

1 in 7
ADULTS
uses CBD products.



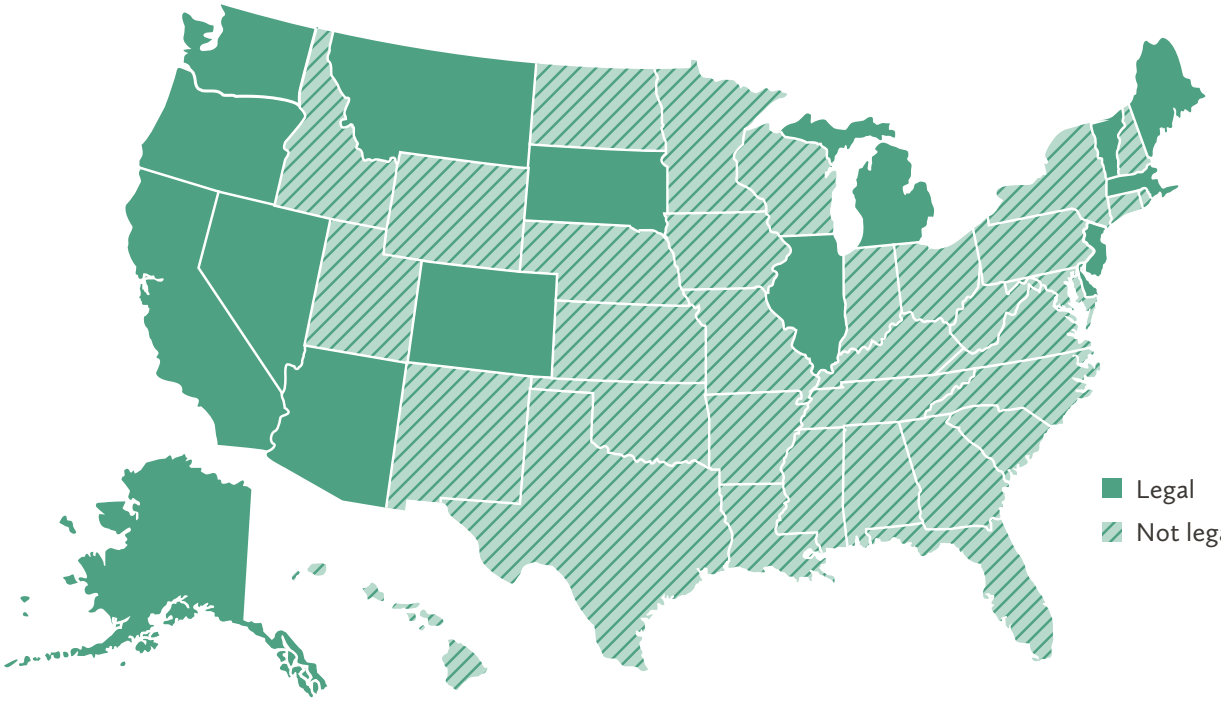
Marijuana[5]

The cannabis policy landscape in the U.S. started to change in the mid-1990s as states began passing laws to allow the use of marijuana for medical use. As stated earlier, to date, 36 states, four U.S. territories, and the District of Columbia have legalized cannabis for the treatment of medical "qualifying" conditions. Fifteen of these states and the District of Columbia have also legalized cannabis for recreational use.

The extensive changes in policy at the state level have caused a rapid rise in the use of cannabis both for medical purposes and for recreational use.

Definitive evidence regarding the effects (both positive and negative) of short- and long-term cannabis use remains elusive. Marijuana remains federally illegal, so as you can imagine, getting approval for a government approved study is challenging to obtain. The lack of scientific research has resulted in a significant public health concern as there is insufficient information available on the health implications of cannabis use.

States with legal recreational marijuana use



Does it work?

It is important to keep in mind that medical cannabis is used to treat disease state symptoms, not the disease itself. Conflicting and impeded scientific research and legislative battles have fueled the debate about what, if any, harms or benefits can be attributed to the use of cannabis or its derivatives. In 2016 the National Academies of Sciences, Engineering, and Medicine put together a team of experts to review studies from the past two decades. The committee reviewed over 10,000 studies and weighed the strength of the evidence for nearly two dozen health conditions that scientists have studied. Their report was published in 2017. Below is a summary of their conclusions.[11]

Conclusive evidence of effectiveness

- Chronic pain

Substantial evidence of effectiveness

- Chemotherapy-induced nausea and vomiting
- Patient-reported multiple sclerosis (MS) spasticity symptoms

Moderate evidence of effectiveness

- Disturbed sleep associated with sleep apnea, fibromyalgia, chronic pain, or MS

Limited evidence of effectiveness

- Appetite/weight loss from HIV/AIDS
- Tourette syndrome
- Reduced death and disability after a traumatic brain injury or brain hemorrhage
- Posttraumatic stress disorder
- Social anxiety

Limited evidence of a lack of effectiveness

- Dementia
- Glaucoma
- Depression caused by chronic pain or MS

Insufficient (or no) evidence of effectiveness

- Cancer
- Weight loss from cancer or anorexia
- Symptoms of irritable bowel syndrome
- Epilepsy (cannabinoids)
  (NOTE: In 2018, a year after the National Academies report was published, a purified CBD product, Epidiolex, was approved for treating two forms of epilepsy on the basis of new clinical trial data.)
- Spasticity caused by spinal cord injury
- Amyotrophic lateral sclerosis (ALS/ Lou Gehrig's disease)
- Huntington's disease
- Parkinson's disease
- Dystonia
- Achieving abstinence in the use of addictive substances
- Schizophrenia or schizophreniform psychosis

Regardless of stance - pro, neutral, or anti, most agree with the need to study marijuana's potential to treat various disease states' symptoms.

Side effects and drug interactions

Like any other drug, side effects may occur. Some of the most common include:

Euphoria

Hyperemesis syndrome

Psychoactive effects

- feeling drunk
- attention disturbance
- dizziness
- sedation
- disorientation
- dissociation
- paranoia

Potential drug interactions are similar to that of CDB, as the enzymes that metabolize THC are also involved in processing some commonly prescribed medications. Like CBD, THC could strengthen or weaken the effect of other medications. Careful monitoring by physicians, caregivers, and pharmacists is an absolute necessity.

Cannabinoid-based prescription drugs

The FDA has approved three branded drugs that contain synthetic THC:[12]

Dronabinol	Dronabinol	Nabilone
(Marinol®)	(Syndros™)	(Cesamet®)

Dronabinol and nabilone are engineered to mimic the effects of THC in natural cannabis. Although dronabinol and nabilone are not extracted from cannabis plants, they are believed to act on the same receptors.

Dronabinol is FDA-approved for two uses: to relieve nausea and vomiting associated with chemotherapy in people who have not responded to conventional anti-nausea drugs, and to stimulate appetite in people with HIV/AIDS who are at risk of wasting syndrome. Nabilone is approved only for treatment-resistant nausea and vomiting associated with chemotherapy.

Medical marijuana and opioids[13]

The most common reason people use medical marijuana is the same as opioids - to alleviate chronic pain. There is significant evidence that medical marijuana is extremely useful in the management of chronic pain.

Many seek medical marijuana as treatment because it is safer than opiates, far less addictive, and virtually impossible to overdose on.

It can take the place of NSAIDs if patients can't take them due to problems with their kidneys, ulcers, or gastroesophageal reflux disease.

Multiple studies have been conducted to examine the association of state implementation of medical and adult-use marijuana laws and opioid prescribing rates. Here are some key findings:

- Analysis of Medicaid prescription data from 2011 to 2016 showed that states that have implemented medical marijuana laws had a 5.88% lower opioid prescribing rate. In states permitting recreational use, there was a 6.38% reduction.[14]
- In addition to a reduction in opioid prescribing, there was also a reduction in the prescribing of anti-anxiety, neuroleptics, anti-nausea, and sleep-aids.[14]
- In states enacting laws permitting medical marijuana use, opioid prescriptions filled under Medicare Part D fell by 2.21 million daily doses filled per year. When medical marijuana dispensaries opened, prescriptions for opioids fell by 3.74 million daily doses per year.[14]
- A 2014 study reported that in states with established medical marijuana programs, there was a reduction in the opioid mortality rate by 24.8%.[15]

More research and analysis is necessary to associate medical marijuana legalization and lower opioid prescribing definitively.

Marijuana and LTC

Seniors are the fastest-growing population of cannabis users.[16] A recent poll showed that 94% of Americans support "allowing adults to legally use marijuana for medical purposes if their doctor prescribes it."[17] In early 2020, AARP announced its support for the medical use of marijuana for older adults in states that have legalized it.[18]

The decreasing stigma and increasing demand are forcing senior care facilities to make decisions and create a policy regarding the use of marijuana in their care communities.

For many providers it is conflicting, to say the least. Providers support their resident's right to choose and encourage them to take in an active role in their plan of care. With marijuana's federally illegal status, and federal law superseding state law, Medicare and Medicaid dollars could be at risk. Above all else is resident safety – medical marijuana doesn't come with "drug facts" information like other prescription medications.

94%

OF AMERICANS

support "allowing adults to legally use marijuana for medical purposes if their doctor prescribes it."

If your facility decides to allow the use of medical cannabis, there are many operational considerations. Here are a few of the key ones:[19, 20, 21]

◆ State Law

Your medical marijuana program must follow state law. When devising a policy, you may encounter issues that your state may not have addressed in the law or regulations. Work closely with your state's Department of Health to make sure your policy is compliant.

◆ Storage

Your policy must include storage procedures to ensure that the product is not falling into the wrong hands. Federal law does not permit long-term care facilities to store medical marijuana. An alternative is to allow residents to use a locked storage box in their room for storage.

◆ Procurement

States vary on who can pick-up medical marijuana prescriptions. Check your state law to determine if only the resident can or if they can designate a "caregiver." This person is an adult who acts as an intermediary to buy, deliver, and/or administer medical cannabis to certified patients.

◆ Administration

Some states mandate that only the patient administer medical marijuana, while others allow them to designate a "caregiver" to aid in administration. If there is a "caregiver" designation, you must know state requirements for the designation. Be aware that who can administer can depend on the form of marijuana the resident is prescribed. Also, a documentation procedure needs to be created.

◆ Monitoring

Determine who will be involved in monitoring for therapeutic benefits and adverse effects. All clinicians and staff caring for residents receiving marijuana should have training and education in administering, monitoring, and using marijuana.

◆ Quality Assurance

Designate a committee and develop a QAPI process to address the use, safety, and quality concerns regarding marijuana in the facility.

◆ Mobility Devices

A possible side effect of marijuana is cognitive impairment. An assessment should be created to evaluate the resident's ability to safely operate a mobility device while marijuana is active in their system.

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