

# MEDICAL MARIJUANA

## BACKGROUND

The term medical marijuana refers to using the whole, unprocessed marijuana plant, or cannabis, or its basic extracts to treat symptoms of illness and other conditions (NIH, 2019). In 1970, the US Congress placed marijuana in Schedule I of the Controlled Substances Act because it was considered it to have “no accepted medical use.” Since then, 33 of 50 U.S. states and the District of Columbia (DC) have legalized the medical use of marijuana. The U.S. Food and Drug Administration (FDA) has not recognized or approved the marijuana plant as medicine. Whether marijuana has therapeutic benefits that outweigh its health risks is uncertain due to mixed research.

## CANNABINOID AS MEDICINE

The active ingredients in marijuana are chemicals called cannabinoids. Cannabinoids affect areas throughout the body, but they mostly affect the central nervous system (brain and spinal cord). Currently, the two main cannabinoids from the marijuana plant of medical interest are THC (tetrahydrocannabinol) and CBD (cannabidiol). THC can increase appetite and reduce nausea, and may also decrease pain, inflammation, and muscle control problems. Unlike THC, CBD is a cannabinoid that doesn’t make people “high” (such as a pleasant euphoria and sense of relaxation). This type of marijuana is not popular for recreational use because it is not intoxicating. It may be useful in reducing pain and inflammation, controlling epileptic seizures, and possibly even treating mental illness and addictions (Thompson, 2015). In 2018, the FDA approved a CBD-based liquid medication called Epidiolex for the treatment of two forms of severe childhood epilepsy, Dravet syndrome and Lennox-Gastaut syndrome (NIH, 2019).

## LEGALIZATION PROCESS

The vast majority of U.S. states moved away from a strict marijuana prohibition before they started considering outright legalization. Every state with legalized recreational use began with the legalization of medicinal use. (See Figure 1.)

## RESULTS

Illegal/Prohibition:	15 States
Decriminalization: (and 11 have reduced criminal penalties)	17 States
<b>Medicinal Use:</b>	<b>33 States</b>
Recreational Use:	11 states

## MARIJUANA POLICIES

### Prohibition:

Law that maintains the criminal status of any action related to marijuana possession, use, cultivation, sale or distribution.

### Decriminalization:

Policy that does not define possession for personal use or casual distribution as a criminal offense.

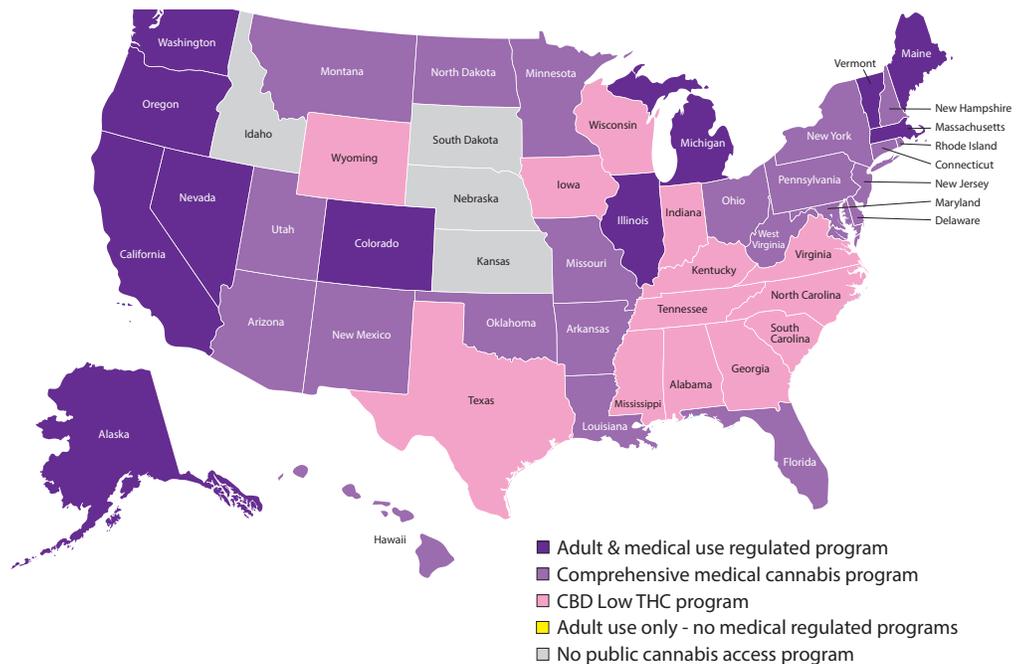
### Medicinal Marijuana:

Law that removes state penalties for the use of marijuana for medicinal purposes under specified conditions.

### Legalization:

Removes criminal and monetary penalties for the possession, use and supply of marijuana for recreational purposes.

Figure 1: State Cannabis Programs Color Coded by State Marijuana Laws



## HOW DO PEOPLE USE MEDICAL MARIJUANA?

- Roll it and smoke it like a cigarette or cigar
- Smoke it in a pipe
- Mix it in food and eat it
- Brew it as a tea
- Smoke oils from the plant (“dabbing”)
- Use electronic vaporizers (“vaping”)
- Apply oils to the skin

## MARIJUANA IS THE MOST WIDELY USED ILLEGAL DRUG IN AMERICA

## MEDICAL MARIJUANA: USES AND SIDE EFFECTS

*Medical marijuana is used to treat a number of different conditions, including:*

- Alzheimer’s disease
- Appetite loss
- Cancer
- Crohn’s disease
- Eating disorders such as anorexia
- Epilepsy
- Glaucoma
- Mental health conditions like schizophrenia and posttraumatic stress disorder (PTSD)
- Multiple sclerosis
- Muscle spasms
- Nausea
- Pain
- Wasting syndrome (cachexia)

*What are the reported side effects of medical marijuana?*

- Bloodshot eyes
- Depression
- Dizziness
- Fast heartbeat
- Hallucinations
- Low blood pressure
- Judgment and coordination effects
- IQ and mental function impairment for the developing brain

## MARIJUANA USE AMONG PREGNANT AND BREASTFEEDING WOMEN

Pregnant women use marijuana more than any other illicit drug. In a national survey, marijuana use in the past month among pregnant women doubled (3.4% to 7%) between 2002 and 2017 (Voldow, 2019). In a study conducted in a large health system, marijuana use rose by 69% (4.2% to 7.1%) between 2009 and 2016 among pregnant women (Young-Wolff, 2017). Marijuana use during pregnancy can affect the developing fetus. Tetrahydrocannabinol (THC) can enter the fetal brain from the mother’s bloodstream and may disrupt the endocannabinoid system, which is important for a healthy pregnancy and fetal brain development (Bretns, 2016). Moreover, studies have shown that marijuana use in pregnancy is associated with adverse outcomes, including lower birth weight (NASEM, 2017). The Colorado Pregnancy Risk Assessment Monitoring System reported

that maternal marijuana use was associated with a 50% increased risk of low birth weight regardless of maternal age, race, ethnicity, education, and tobacco use (Crume, 2018). Alarmingly, many retail dispensaries recommend marijuana to pregnant women for morning sickness (Dickson, 2018).

The main psychoactive component of cannabis, THC, is excreted into breastmilk in small quantities. The duration of detection of THC in milk has ranged from 6 days to greater than 6 weeks in various studies (LactMed, 2019). There is no evidence that shows any amount of marijuana has been proven safe to use during pregnancy or while breastfeeding. Women should speak with their healthcare provider to learn more about marijuana use during pregnancy and breastfeeding.

## MARIJUANA USE AMONG ADOLESCENTS

Marijuana use in teens can lead to long-term consequences. Because the teen brain is actively developing and often will not be fully developed until the mid-20s, marijuana use during this period may harm the developing teen brain. According to the CDC, marijuana use can cause:

- **A decline in school performance**, as students who smoke marijuana may get lower grades and more likely to drop out of high school than their peers who do not use (Broyd, 2016).
- **An increased risk of mental health issues**. Marijuana use has been linked to a range of mental health problems in teens such as depression or anxiety (Copeland, 2013). Psychosis has also been seen in teens at higher risk like those with a family history (Arzeneault, 2002).
- **Impaired driving**. Driving while impaired by any substance, including marijuana, is dangerous. Marijuana negatively affects a number of skills required for safe driving, such as reaction time, coordination, and concentration (Bondallaz, 2016; Hartman, 2013).
- **Potential for addiction**. Research shows that about 1 in 6 teens who repeatedly use marijuana can become addicted, which means that they may make unsuccessful efforts to quit using marijuana or may give up important activities with friends and family in favor of using marijuana (CDC, 2017).

## MEDICAL MARIJUANA REGULATION

States that have legalized marijuana have the following legal requirements:

- At least 18 years of age (in most states)
- Resident of state and ability to prove such residency
- Medical records to indicate qualifying medical diagnoses
- Written recommendation from a licensed physician

Medical marijuana is not a one size fits all dose. Each patient in each state has different laws regarding dosage. The amount of marijuana a person is allowed to have depends on which state they live in, their medical diagnoses and type of medical marijuana being consumed. Additionally, the amount of marijuana that will benefit the patient can also vary as people have a range of tolerance. Ultimately, patients should start small and take it slow. This is especially true if new to marijuana or are trying a new route of administration.

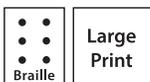
## CONCLUSION

Recent years have seen considerable shifts in cultural attitudes towards marijuana for medical and recreational use. Medical marijuana remains controversial, but it is gaining traction as a legitimate recommendation for a variety of symptoms. It will likely take more moves by policymakers and the U.S. government for it to be accepted and sold nationwide. This will, however, likely require a much larger body of scientific research to prove or disprove the efficacy of medical marijuana. Wisconsin lawmakers have a range of options to consider with marijuana, from prohibition to legalization. It is clear that there is data to support each policy option from prohibition to legalization. An important next step for Wisconsin policy makers is to consider decriminalization and eventually medicinal use.

*Please see references on next page.*

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