



Marijuana in Michigan: What You Need to Know

Information for expectant mothers, teens, parents, guardians, and other trusted adults.





Marijuana Education

The first challenge many face in learning about marijuana is distinguishing the difference between the various names. Unfortunately, this can be difficult to parse out, even at a scientific level. Even botanists haven't come to a conclusion about the exact taxonomy of the plant. Broadly speaking, cannabis is the latin name of a genus of plants. Marijuana is a legal term used to refer to the plants that contain more than 0.3% **Tetrahydrocannabinol (THC)**, the primary psychoactive compound found in the plant, or what gives users the feeling of being high. Hemp, however, is defined as having less than 0.3% THC and contains another cannabinoid called **Cannabidiol (CBD)**.

Marijuana varieties are selectively bred in controlled environments and produce female plants that yield budding flowers. These flowers are where the majority of **cannabinoids** are produced. These cannabinoids, or the compounds that can get the user high, are produced within the **trichomes** of the plant, found in high concentrations on the flower. These flowers are grown until maturity, removed from the plant, and then dried and cured. This process results in the flower that is sold in the medical and recreational markets.

Marijuana Kief

Powdery resin, consisting completely or almost entirely of trichomes that have been mechanically removed from the flower itself.

Marijuana Concentrates

Marijuana concentrates are simply the concentrated resins from the marijuana plant. Marijuana oils, concentrates, and extracts are all umbrella terms under which there are a host of different product types. Concentrates may be smoked, vaporized, or ingested. The most common types of marijuana concentrates are tinctures, capsules, vaporizer cartridges, hash, shatters, and waxes, though there are many additional names and specifications.

Marijuana Edibles or Marijuana-Infused Products

Marijuana-infused products are any products which contain marijuana that is intended for human consumption in a manner other than inhalation. These products include marijuana concentrates as a component of their preparation and are marketed as a myriad of edible products, beverages, and botanical tinctures, as well as various topical products. These products take longer to take effect, but often result in a more intense high that is likely to last longer than when inhaled.

Marijuana 101

For thousands of years people have been using Cannabis Sativa for spiritual, medicinal, and recreational purposes. There are a variety of reasons that an adult may choose to use marijuana such as enhancing the experience of every day activities, to treat ailments, or to elicit certain feelings.

THC is the main compound in the cannabis plant and is responsible for the temporary alteration of one's psychological state. For some individuals this can result in relaxation, euphoria, feelings of creativity and other "feel good" psychological responses. However, it is important to remember that some may experience vastly different psychological responses to marijuana, which may happen consistently or infrequently. Some individuals may experience paranoia, anxiety, or other less desirable feelings with marijuana use.

Many things contribute to how marijuana makes a person feel and can include:

- Individual body chemistry
- Amount consumed
- The method of consumption
- Set & setting – for instance consuming marijuana after you have had a bad day in a place that makes you feel uncomfortable may not result in the most enjoyable experience.

Cannabinoids and terpenes are the main compounds in the cannabis plant that provide medicinal benefits or result in a "high" for the user. The two most common cannabinoids are THC and CBD. THC provides the characteristic high often associated with marijuana use, where CBD is non-intoxicating.

Cannabinoids and terpenes work together through a process called the entourage effect, interacting with and activating the body's endocannabinoid system, which is a cellular system that helps the body maintain balance.

Terpenes are the scent compounds found in marijuana and lend themselves to giving the plant its complex aromas. Hundreds of terpenes are found in trace amounts, but the following are the most commonly reported:

Myrcene • Caryphyllene • Limonene • Pinene • Linalool • Terpinolene • Humulene • Ocimene

What is a Strain?

Strains are different variations of the cannabis plant, similar to how you might notice many different variations of tomatoes in the garden or at the grocery store.

How is Marijuana Consumed?

As marijuana has become more mainstream, new ways of consumption have become popularized, including:

- **Vaping** - Vaping involves inhaling heated extracts through a vaporizing device. Onset is nearly instantaneous.
- **Dabbing** - Dabs are concentrated doses of marijuana extract. These concentrated doses are typically heated on a hot surface until vaporized and subsequently inhaled. Onset is nearly instantaneous.
- **Edibles** - Concentrated marijuana is decarboxylated (sometimes called "activated") through the process of heating and is used to create a variety of ingestible products. Onset depends on individual metabolism and a variety of factors, onset can be from 15 minutes to a few hours.
- **Topicals** - Concentrated marijuana is decarboxylated (sometimes called "activated") through the process of heating and is used to create a variety of topically administered products. These products, when used as directed do not result in psychoactive effects.



Information for Parents

As marijuana has become legalized, the pressures for adolescents to use it can be difficult to navigate. Legalization has brought marijuana out from the shadows and into storefronts on Main Street. It is important to know the facts about marijuana so that parents may have open and informed conversations with their kids.

Talking about marijuana or other drugs may not be easy or fun, but it is important to remember that, as a parent, you are not alone in these struggles. Many parents wonder when, where, and how to start these conversations.

As many of us remember, kids aren't always the best at opening conversations on difficult topics. It may be helpful to inform yourself and streamline that information for your kids. This document can serve as a resource for education – for both parents and adolescents alike.

Talking about marijuana or other drugs may not be easy or fun, but it is important to remember that, as a parent, you are not alone in these struggles. Many parents wonder when, where, and how to start these conversations. But, often, it makes sense to have your first conversation before your child is likely to try marijuana. This way, you can establish a connection and expectations. The goal of open communication is to encourage thoughtful conversation between yourself and your child. Conversing with any partner, including adolescents, is more effective if you remember some basic ground rules for effective communication:

Be a good listener

Acknowledge their point of view and be open to sharing your own

Use open-ended questions to encourage reflection



General Information

Marijuana use has been increasing in Michigan in young adults ages 18-25 [1].

If parents choose to use marijuana, they should be mindful of the safety of their children just like they would with any other intoxicating substance.

If your child accidentally ingests marijuana, please call the poison control hotline **(1-800-222-1222)** and watch for the following signs:

- Has problems waking or sitting up
- Difficulty breathing
- Sleepiness or drowsiness

If the reaction seems severe, call 911 or visit your nearest emergency department.

It is best practice to lock all marijuana products in a lock box or safe to prevent accidental ingestion.



Adolescent Perception of Marijuana Use

In 2013-2014 (the most recent year with data available), 95.6% of youth indicated that their parents somewhat or strongly disapproved of them trying marijuana once or twice, and 95.5% also indicated their parents somewhat or strongly disapproved of them using marijuana once a month or more. Percentages of perceived parental disapproval remained stable from 2002-2003 to 2013-2014 [2].



In 2013-2014, among adolescents who reported that they have used marijuana during the past month, the percentages of perceived parental disapproval were lower, with 80.9% indicating their parents somewhat or strongly disapproved of them trying marijuana once or twice, and 79.7% indicating their parents somewhat or strongly disapproved of them using marijuana once a month or more [2].

Over 75% of adolescents (in 2013-2014) disapprove of their peers using marijuana. Among only those youth who have used marijuana in the past month, approximately 30% disapprove of their peers trying marijuana [2].

Among adolescents reporting they had used marijuana in the past month, percentages of disapproval for peer use were lower, with 31.4% somewhat or strongly disapproving of peers trying marijuana once or twice and 23.0% somewhat or strongly disapproving of peers using marijuana once a month or more [2].

Michigan residents' perceptions regarding the risks of marijuana use have decreased during the past 15 years, with the perception of risk lowest among young adults (ages 18-25), the population with highest percentages of use in the general population of Michigan [1].



Information for Teens

Marijuana use may impact the developing brain. Adolescent brains are in a constant state of development that is not fully complete at least until the early to mid-20's. The brain is still under construction because the frontal cortex is one of the last areas to completely develop. This region is critical to planning, judgement, decision-making, learning, and personality which means your brain may be particularly vulnerable to the negative effects of any intoxicating substances.

The endocannabinoid system is also not fully developed in adolescents. This system comprises the physiological mechanisms that respond to THC and is important for cognition, neurodevelopment, stress response, and emotional control. Marijuana use may impact the developing brain. Adolescent brains are in a constant state of development that is not fully complete until age 25, particularly the areas that handle decision-making and learning [3]. That means your brain may be particularly vulnerable to the negative effects of any intoxicating substances.

Learning & Memory

Regular use of marijuana by adolescents may impact the ability to learn and retain information. Youth who use marijuana regularly have been shown to have lower math and reading scores [4]. While new research suggests that this may not be the case if marijuana use is restricted until after adulthood, it is vitally important to remember that choices we make as adolescents can have long-standing consequences in life.



Claim: *Marijuana does not affect learning and memory.*

Research Suggests: *The short term effects of marijuana may have a negative effect on learning or remembering. However, most evidence suggests that any long-lasting effects on learning and memory are minimal in adults [5].*

Information for Teens (continued)

Continuing Education

Though marijuana use may be legal for adults age 21 or older, it is still important to remember that marijuana-related charges may cause you to become ineligible for or lose your financial aid for college.

Physical Performance

Marijuana smoke contains many of the same chemicals as tobacco smoke and is not healthy for your lungs. Smoke inhalation – especially on a regular basis – can make it harder for a young person to participate in physical activities. When someone uses marijuana, THC attaches to cannabinoid receptors in the brain. The endocannabinoid [6] system is designed to react to incoming information, but that reaction can be slowed when THC has overwhelmed receptors in the system. Because of this, marijuana use can also affect coordination and make it difficult to learn new skills [4].

Extracurriculars

Often, schools and sports teams have rules prohibiting the use of drugs, alcohol, and marijuana. Breaking school policies regarding substance use can get you kicked off sports teams and may even result in suspension or expulsion from school. When you are a part of a team, it is important to remember that, while you are an important part of the team, you are not the only person on the team; your teammates rely on you to devote your attention to the team and support them to the best of your ability.

Claim: *Marijuana is a gateway drug that leads to other illicit drug use.*

Research Suggests: *Marijuana is not likely the primary factor in a person's choice to use illicit drugs [7].*



Work

Marijuana use is prohibited both on- and off-site at many Michigan employers. When you try to get a job, you may be drug tested upon hire and even after you start. Remember that failing a drug test may limit future opportunities in the workplace. Much like being a part of a sports team, being a part of a workforce is like being on a team: the more active, engaged and involved you can be at your place of employment, the more likely it is that you will get noticed by your bosses and even promoted!

Legal Woes

If you are underage and get caught in possession of marijuana, you may be facing a Minor in Possession (MIP) charge—which comes with a fine, community service and possibly even court-ordered drug treatment.

Quitting School

There appears to be a statistical association seen between teen marijuana use and quitting school [8]. However, this association may be the result of correlation and not causation and could be due to things like personality traits, genetic predispositions, family issues, or zero-tolerance school policies related to marijuana use.



Medical Marijuana

Marijuana has been used as medicine in different parts of the world throughout time. As it stands today, there is scientific evidence suggesting the benefits of marijuana for a variety of medical diagnoses as well as pain management.

It is important to be aware that marijuana can impact mental health in certain circumstances, however this is largely dependent upon the chemistry and unique situation of each individual consumer.

More research is necessary to understand whether or not marijuana has a place among treatment options for mental health problems such as anxiety and ADHD. For example, currently available research suggests that marijuana has the potential to both increase and reduce anxiety. Some of these variations may be due to differing cannabinoids interacting differently in the body. Interestingly enough, researchers believe that the ratio of THC to CBD is a crucial factor in how marijuana affects a person's mind and body. Some studies report that medical marijuana has possible benefit for several conditions. State laws vary in which conditions qualify people for treatment with medical marijuana.

In Michigan, the most commonly cited condition is severe and chronic pain [1].

Other less commonly cited reasons in 2018 for acquiring medical marijuana were cancer-related pain (4.9%) and post-traumatic stress disorder (4.1%) [1].



Medical Marijuana (continued)

Michigan Qualifying Conditions

- Cancer
- Glaucoma
- HIV Positive
- AIDS
- Hepatitis C
- Amyotrophic Lateral Sclerosis
- Crohn's Disease
- Agitation of Alzheimer's Disease
- Nail Patella
- Post - Traumatic Stress Disorder
- Obsessive Compulsive Disorder
- Arthritis
- Rheumatoid Arthritis
- Spinal Cord Injury
- Colitis
- Inflammatory Bowel Disease
- Ulcerative Colitis
- Parkinson's Disease
- Tourette's Disease
- Autism
- Chronic Pain
- Cerebral Palsy
- A chronic or debilitating disease or medical condition or its treatment that produces 1 or more of the following:
 - *Cachexia or Wasting Syndrome*
 - *Severe and Chronic Pain*
 - *Severe Nausea*
 - *Seizures (Including but not limited to those characteristic of epilepsy)*
 - *Severe and Persistent Muscle Spasms (Including but not limited to those characteristic of multiple sclerosis)*

How to Apply for a Medical Marijuana Card

- Adult applicants must be a Michigan resident 18 years of age or older
- Visit a Medical Doctor (M.D.) or Doctor of Osteopathic Medicine (D.O.) licensed in Michigan
- Be diagnosed with one of the qualifying debilitating conditions listed above
- Submit \$40 application fee and all required documentation

Apply online at www.michigan.gov/mmmp or submit a paper application to:

State of Michigan - MMMP
PO Box 40083
Lansing MI, 48909

If applying online you must be applying as a Patient only

If applying with a Caregiver, you must submit a paper application. Minor applicants must submit a paper application and their custodial parent or legal guardian with responsibility for health care decisions must serve as their caregiver.





Expectant Mothers

There are number of legal and medical policies surrounding marijuana use by expectant mothers and prenatal marijuana exposure due to the uncertainty and lack of research surrounding the impacts of use on prenatal development. A systemic review of available

research revealed that many of the studies on this topic found no statistical differences between children who were reportedly exposed to marijuana during pregnancy and those who were not. The results of these studies may be due to differences in home environment, level of poverty, and natural genetic variation [9].

The American College of Obstetricians and Gynecologists say that there are no approved indications or recommendations regarding prenatal marijuana use, particularly because the impact of prenatal marijuana is not yet fully understood [10].

There is some evidence that indicates an association between prenatal marijuana use and lower offspring birth weight.

The vast majority (86.7%) of Michigan expectant [1] mothers did not use marijuana before, during, or after pregnancy.

Among mothers who quit using marijuana during pregnancy, the majority (79.5%) did not return to marijuana use in the months following birth [1].

About one in five mothers (20.5%) with pre-pregnancy use resumed marijuana use after pregnancy [1].





Marijuana & The Law

It is important to remember that marijuana, while legal in certain states, is illegal at the federal level and is still classified as a Schedule 1 controlled substance.

Adult-Use Marijuana

In 2018, Michigan became the first midwestern state to allow both medical and adult-use marijuana use. The Michigan Regulation and Taxation of Marijuana Act was passed by Michigan voters in November 2018 and allows anyone age 21 or older to possess up to 2.5 ounces of marijuana and to grow as many as 12 plants at home. It also sets up a system for the state-licensed cultivation and distribution of marijuana, with sales subject to a 10% excise tax, in addition to Michigan's 6% sales tax.

- This law went into effect on December 6, 2018 and the first marijuana retailers opened to the public on December 1, 2019.
- Approximately 3/4 of Michigan municipalities have banned adult-use marijuana retailers.



Under Michigan Law, the following ***is*** permitted:

- Anyone age 21 or older may possess and consume marijuana.
- Where marijuana sales are legal, an individual can purchase up to 2.5 ounces, however an individual cannot have more than 15 grams of marijuana concentrate at one time.
- At home, an individual may keep up to 10 ounces of marijuana flower in a secured location.



Under Michigan Law, the following ***is not*** permitted:

- Public consumption is not permitted.
- Driving under the influence of marijuana is not permitted.
- Individuals cannot cross state lines with marijuana.

Works Cited

- [1] - https://injurycenter.umich.edu/wp-content/uploads/2020/05/2020_IPC_Cannabis_Report.pdf
- [2] - <https://www.cdc.gov/mmwr/volumes/65/ss/ss6511a1.htm>
- [3] - https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx
- [4] - Schweinsburg AD, Brown SA, Tapert SF. The influence of marijuana use on neurocognitive functioning in adolescents. *Curr Drug Abuse Rev.* 2008;1(1):99-111.
- [5] - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3037578/>
- [6] - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/>
- [7] - <https://www.drugabuse.gov/download/1380/marijuana-research-report.pdf?v=d9e67cbd412ae5f340206c1a0d9c2bfd>
- [8] - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2797098/>
- [9] - frontiersin.org/articles/10.3389/fpsyg.2020.00816/full
- [10] - National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on the Health Effects of Marijuana: An Evidence Review and Research Agenda. Washington (DC): National Academies Press (US); 2017 Jan 12.