



## COLORADO DISTRICT ATTORNEYS' COUNCIL

### **Cannabis FAQ**

We get many inquiries about what is happening in Colorado after the two state constitutional amendments regulating cannabis. We hope that this document will provide some basic information and where to find resources.

#### **What are the components of marijuana?**

Marijuana is comprised of hundreds of individual molecules known as cannabinoids and terpenes. Cannabinoids are molecules unique to cannabis that can produce a wide variety of both therapeutic and adverse effects. Approximately 66 cannabinoids have been discovered, yet due to limited research, we only know a fair amount about a select few. The most well-known cannabinoid is Delta-9 Tetrahydrocannabinol. Next in line is Cannabidiol (CBD). Terpenes are organic molecules that emit aromas. These molecules are responsible for the unique smells and flavors that cannabis brings to the table and also can produce physiological effects. Common terpenes found in cannabis include Myrcene, Linalool, and Limonene. The cannabinoid and terpene profile of any cannabis plant make up its chemotype which helps us to predict what the effects will be.

[adai.uw.edu/marijuana/factsheets/cannabinoids.htm](http://adai.uw.edu/marijuana/factsheets/cannabinoids.htm) (Cannabinoid Factsheet)

#### **How is marijuana used?**

There are many ways to use marijuana and each one affects users differently. Factors include dosage, subject's body composition, and tolerance. Marijuana can be smoked like a cigarette (a joint) or a cigar (a blunt). Marijuana can also be smoked in a pipe; small glass (spoon) and water (bong) pipes are common. Sometimes people mix it in food and eat it or brew it as a tea (edibles). Smoking oils, concentrates, and extracts from the marijuana plant are also popular. People who use this practice call it "dabbing." Marijuana can also be found in pill form or drops placed under the tongue (tinctures) as well as crystalline cannabis.

[www.cdc.gov/marijuana/faqs/how-is-marijuana-used.html](http://www.cdc.gov/marijuana/faqs/how-is-marijuana-used.html)



### Can I distinguish between marijuana and hemp?

By looking at the plant, no. By definition, hemp is an industrial product and is produced from a cannabis sativa plant that contains no more than .3% THC. THC levels in marijuana plants are considerably higher, upwards of 30%. Preliminary drug tests, for example Narcotic Identification Kit (NIK) tests have shown a presumptive positive test using hemp. More sensitive laboratory tests would have to be conducted on the plant material to determine total THC levels.

<http://sites.miis.edu/thinkhempthoughts/hemp-vs-marijuana/>

### What are the differences between cannabis species?

The two primary species of cannabis are known as Cannabis Indica and Cannabis Sativa. There is a third species of the cannabis plant that is not as well-known, Cannabis Ruderalis. What we know to be true:

Indica: broad leaves, dense flower structure, plant is shorter in stature, shorter flowering cycles, suitable for colder climates with a short growing season.

Sativa: narrow leaves, loose flower structure, plant is taller in stature, longer flowering cycles, suitable for warmer climates with a longer growing season.

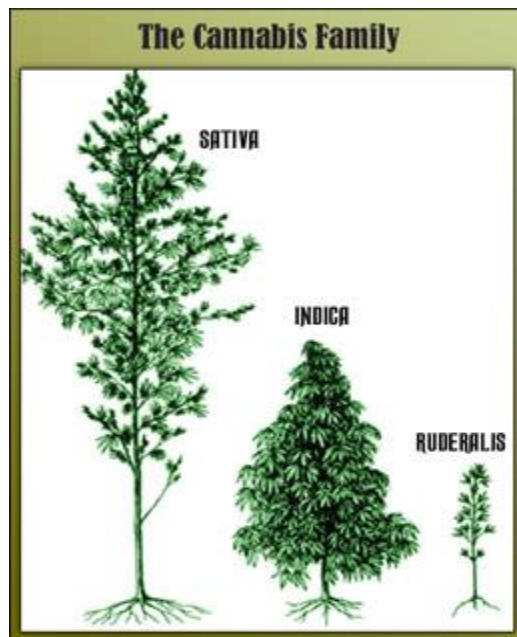
Ruderalis: small thick leaves with only a few branches. They do not grow very tall, only up to four feet in height. Good at thriving in poor conditions. Ruderalis strains have low levels of THC and produce lower yields in comparison to the indica or sativa subspecies. They are not used in the recreational market due to their rather poor return, although they can be cross-bred with either indica or sativa strains to improve yields. The ruderalis subspecies can contain higher levels of CBD and can be useful for medicinal markets, as long as sophisticated extraction equipment is used.

There are many common misconceptions regarding Indica and Sativa. Most people think the following:

Indica: relaxing, sedative, stoney, Like In da couch.

Sativa: stimulating, energetic, creative, head focused high.

These are primarily stereotypes of how the user may feel under the influence of the different strains of the marijuana plant. Many of the products available today are hybrids or products that contain components of both strains.



<https://www.cannabismarketcap.io/blog/understanding-cannabis-sativa-vs-indica-vs-ruderalis>

### **Can you use cannabis products in a vape pen/mod intended for nicotine oil (juice)?**

The short answer is it depends. Some nicotine vaporization devices do not have a heat adjustment and can get to 900 degrees. Cannabis is best used just below the point of combustion, 356 to 374 degrees. If cannabis products are heated to higher temperatures the bioavailability / “effectiveness” is reduced. Most vaporization products made for the consumption of cannabis have this reduced heat range. If the vape device has an adjustable heating coil it “could” be used for both, however some waxes and oils may require additional equipment. Most users prefer to use cannabis specific equipment for cannabis.

It can be difficult to differentiate between cannabis and nicotine vaping equipment. The below picture shows PAX Era, Stiizy cannabis vaporizers and a Juul vaporizer.



<https://www.marijuanabreak.com/what-is-a-vape-mod>

<https://www.vaporvanity.com/vaping-weed/>

<https://weedmaps.com/learn/products-and-how-to-consume/vape/>

### **What are the psychoactive and non-psychoactive cannabinoids?**

Cannabis is comprised of hundreds of individual molecules known as cannabinoids and terpenes. Cannabinoids are molecules unique to cannabis which can produce a wide variety of both therapeutic and adverse effects. Although there are over one hundred recognized cannabinoids in marijuana, there are several that are commonly accepted as causing impairment to some degree and some that do not.

Psychoactive: Delta-9 Tetrahydrocannabinol (THC), THC-V, CBN.

Non-Psychoactive: CBD, THCa, CBDV, CBG, CBC, CBL.

While these are current guidelines, current peer reviewed studies are rare and current scientific knowledge is constantly evolving. No studies have been conducted with respect to driving and the non-psychoactive constituents of cannabis

[www.ncbi.nlm.nih.gov/pmc/articles/PMC6304621/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC6304621/)

<https://www.leafly.com/news/cannabis-101/list-major-cannabinoids-cannabis-effects>

### **What are the adverse effects of THC?**

Anxiety, Impaired reaction time, Short term memory loss, Impaired hand-eye coordination, Impaired perception of time & distance, Paranoia, Cotton Mouth, Dry/Red Eyes, Tachycardia (Increased heart rate), Elevated Blood Pressure.

[www.cdc.gov/marijuana/health-effects.html](http://www.cdc.gov/marijuana/health-effects.html)

### **What is the difference between medical and recreational cannabis?**

Medical cannabis was designed for patients that proved a debilitating medical condition e.g. cancer, glaucoma, HIV, AIDS, cachexia, severe pain, severe nausea, seizures, persistent muscle spasms, and so on. The patient can possess two ounces of a useable form of cannabis. Possess up to six plants with no more than three being mature.

Recreational cannabis can be possessed by anyone over the age of 21. The person is limited to possess no more than one ounce of a useable form of cannabis. Possess up to six plants with no more than three being mature flowering plants. Transfer of one ounce or less of marijuana without remuneration to a person who is twenty-one years of age or older.

### **Any new regulations on cannabis in Colorado?**

**Marijuana Delivery** — HB 19-1234 established a marijuana delivery permit that allows the delivery of regulated marijuana to private residences, beginning first with medical marijuana in 2020, followed by retail (adult-use) marijuana in 2021. MED will begin issuing delivery permits to medical marijuana stores in 2020 and then to retail marijuana stores, medical marijuana transporters, and retail marijuana transporters in 2021. Customers will be limited to one delivery per day, per address. Prior to MED issuing a permit, the applicant must establish that the relevant local jurisdiction has approved an ordinance or resolution permitting delivery of regulated marijuana in that jurisdiction. The bill prohibits delivery to schools and college campuses. Furthermore, the bill prohibits the delivery of medical marijuana to individuals other than a medical marijuana patient's parent or primary caregiver if the person is under 18 years old, and prohibits the delivery of medical marijuana to patients between 18 and 21 years old.

**Marijuana Hospitality Establishments** — HB 19-1230 created two new marijuana business licenses.

- The Marijuana Hospitality Business License allows for marijuana use or consumption on the licensed premises (i.e. dispensaries). Patrons will also be permitted to bring their own marijuana to these sites. These businesses may be mobile (i.e., a tour bus).

- The Retail Marijuana Hospitality and Sales Businesses License allows businesses to purchase marijuana from a retail marijuana business for limited quantity sales to consumers and permits the use or consumption of such marijuana on the licensed premises.
- 19-24089 The law prohibits both license types from holding a liquor license at the same premises and prohibits the consumption of alcohol and tobacco on the premises. Each state license is conditioned on local jurisdiction approval. Local jurisdictions may exempt Licensed Hospitality Businesses from the Colorado Clean Air Act, which prohibits smoking indoors. The law came into effect on 01 January 2020.

### **Public Campaigns**

The Colorado Department of Transportation's *The Cannabis Conversation*, was a two-year, statewide initiative to engage Coloradans in a meaningful discussion about marijuana-impaired driving and learn more about the public's attitudes, beliefs and behaviors on the topic. The purpose of this first-of-its-kind campaign, which wrapped up in late 2019, was to ultimately help CDOT develop fresh strategies, messages and solutions that would better resonate with cannabis consumers and influence decision making when it comes to marijuana-impaired driving.

[https://www.codot.gov/safety/alcohol-and-impaired-driving/druggeddriving/assets/2020/cannabis-conversation-report\\_april-2020.pdf](https://www.codot.gov/safety/alcohol-and-impaired-driving/druggeddriving/assets/2020/cannabis-conversation-report_april-2020.pdf)

### **What about children / teens using cannabis?**

The most common overdose incidents in children occur when the drug has been combined with food in an "edible" form of marijuana. This is because marijuana ingested in this manner can have a stronger and prolonged effect, especially in children under the age of 12 years old.

In these instances, kids mistake "edible" marijuana (like gummy bears, brownies, lollipops, etc.) for regular food and eat it unknowingly. Small children are at higher risk based on their size and weight. Because edible products have very high amounts of marijuana, the symptoms are more severe on a small child. Many young children who consume marijuana edibles require hospital admission due to the severity of their symptoms.

The long-term effect of acute marijuana exposures on children is unknown, as it has not been systematically studied. Because we don't yet have the research and science findings to know the full effects, doctors do not fully understand marijuana's long-term effects on children after acute exposures.

[www.childrencolorado.org/conditions-and-advice/conditions-and-symptoms/conditions/acute-marijuana-intoxication/](http://www.childrencolorado.org/conditions-and-advice/conditions-and-symptoms/conditions/acute-marijuana-intoxication/)(resources on marijuana exposure in children)

### **What about chronic cannabis use in teens?**

Few longitudinal studies have been conducted to follow the trajectories of young people before and after they take their first hit of marijuana. But one long-term prospective study from New Zealand showed worrisome findings.

Duke University psychologist Terrie Moffitt, PhD, and colleagues collected data from the Dunedin Multidisciplinary Health and Development Study, longitudinal research that has followed 1,000 New Zealanders born in 1972. Participants answered questions about marijuana use at 18, 21, 26, 32 and 38. They also underwent neuropsychological testing at ages 13 and 38.

The team found that persistent marijuana use was linked to a decline in IQ, even after the researchers controlled for educational differences. The most persistent users — those who reported using the drug in three or more waves of the study — experienced a drop in neuropsychological functioning equivalent to about six IQ points (*PNAS*, 2012). "That's in the same realm as what you'd see with lead exposure," says Weiss. "It's not a trifle."

There are some reasons to think that adolescents may be uniquely susceptible to lasting damage from marijuana use. At least until the early or mid-20s, "the brain is still under construction," says Staci Gruber, PhD, a neuroscientist and director of the Cognitive and Clinical Neuroimaging Core and the Marijuana Investigations for Neuroscientific Discovery (MIND) Program at McLean Hospital/Harvard Medical School. During this period of neurodevelopment, the brain is thought to be particularly sensitive to damage from drug exposure. And the frontal cortex — the region critical to planning, judgment, decision-making and personality — is one of the last areas to fully develop, Gruber says.

[www.apa.org/monitor/2015/11/marijuana-brain](http://www.apa.org/monitor/2015/11/marijuana-brain) (research study - Marijuana and the developing brain)

### **Can Colorado law enforcement officers use cannabis?**

While not against the law in the state of Colorado, most agencies have policies against the use of cannabis products. There are some agencies that allow for CBD use as long as the CBD is derived from hemp sources. If the officer tests positively for THC, the officer would be subject to the agency's sanctions regarding substance use.

### **What is ARIDE?**

Advanced Roadside Impaired Driving Enforcement (ARIDE) is a 16-hour course instructed by DRE instructors. ARIDE is intended to bridge the gap between the Standardized Field Sobriety Test curriculum and the Drug Evaluation and Classification Program by providing officers with general knowledge related to drug impairment and by promoting the use of DREs in states that have the DEC Program. One of the more significant aspects of ARIDE is its review and required student demonstration of the SFST proficiency requirements. The ARIDE program also stresses the importance of securing the most appropriate biological sample in order to identify substances likely causing impairment.

## What is DRE?

A drug recognition expert or drug recognition evaluator (DRE) is a police officer trained to recognize impairment in drivers under the influence of drugs other than, or in addition to, alcohol. The International Association of Chiefs of Police (IACP) coordinates the International Drug Evaluation and Classification (DEC) Program with support from the National Highway Traffic Safety Administration (NHTSA) of the U.S. Department of Transportation. In addition to officers, who are certified as DREs, the DEC Program educates prosecutors and toxicologists on the DRE process and the drug categories.

Useful links:

Analytical Cannabis

<https://www.analyticalcannabis.com> (extraction, science, and testing resources and opinions)

Centers for Disease Control and Prevention Marijuana and Public Health:

[www.cdc.gov/marijuana/health-effects.html](http://www.cdc.gov/marijuana/health-effects.html) (Marijuana health effects)

Colorado Bureau of Investigation Toxicology Services: [www.colorado.gov/pacific/cbi/toxicology-services](http://www.colorado.gov/pacific/cbi/toxicology-services) (Drug effects monographs and Toxicology services information)

Colorado Department of Public Health & Environment: [www.colorado.gov/cdphe/hkcs](http://www.colorado.gov/cdphe/hkcs) (Healthy Kids Colorado Survey)

Colorado Department of Transportation: [www.codot.gov/programs/library/traffic/safety-crash-data/crash-data/crashes-by-county-2000-2015](http://www.codot.gov/programs/library/traffic/safety-crash-data/crash-data/crashes-by-county-2000-2015) (Colorado Crashes by County 2000-2018)

Colorado Department of Transportation: [www.codot.gov/programs/library/traffic/safety-crash-data/crash-data/crashes-by-human-contributing-factor-2005-2014](http://www.codot.gov/programs/library/traffic/safety-crash-data/crash-data/crashes-by-human-contributing-factor-2005-2014) (Colorado Crashes by Human Contributing Factor 2005-2018)

Colorado Department of Transportation: [www.codot.gov/programs/library/traffic/safety-crash-data/crash-data/distracted-drivers-in-crashes/2012-2015-all-distracted-drivers-in-crashes](http://www.codot.gov/programs/library/traffic/safety-crash-data/crash-data/distracted-drivers-in-crashes/2012-2015-all-distracted-drivers-in-crashes) (Colorado Distracted Driver Data 2012-2017)

Colorado Department of Transportation: [www.codot.gov/library/traffic/safety-crash-data/fatal-crash-data-city-county](http://www.codot.gov/library/traffic/safety-crash-data/fatal-crash-data-city-county) (Colorado Fatal Crash Data)

Colorado Department of Transportation: [www.codot.gov/programs/library/traffic/safety-crash-data/fatal-crash-data-city-county/historical\\_fatal.pdf](http://www.codot.gov/programs/library/traffic/safety-crash-data/fatal-crash-data-city-county/historical_fatal.pdf) (Colorado Historical Fatal Crash Trends)

Colorado Department of Transportation: [www.codot.gov/programs/library/traffic/safety-crash-data/crash-data/vehicle-operators-charged-with-dui-in-crashes-by-county](http://www.codot.gov/programs/library/traffic/safety-crash-data/crash-data/vehicle-operators-charged-with-dui-in-crashes-by-county) (Colorado Vehicle Operators Charged with DUI in Crashes by County 2016-2018)



Colorado Marijuana Enforcement Division:

[www.colorado.gov/pacific/enforcement/marijuanaenforcement](http://www.colorado.gov/pacific/enforcement/marijuanaenforcement) (information on licensing, laws and regulation, compliance, and stats and resources for commercial marijuana businesses)

Governors Highway Safety Association: [www.ghsa.org](http://www.ghsa.org) (Drug impaired driving resources)

Impacts of Marijuana Legalization in Colorado (October 2018):

[cdpsdocs.state.co.us/ors/docs/reports/2018-SB13-283\\_Rpt.pdf](http://cdpsdocs.state.co.us/ors/docs/reports/2018-SB13-283_Rpt.pdf) (report of preliminary data for Public Safety - arrests, court filings, traffic safety, illegal cultivation and diversion to other states; Public Health - adult usage, hospitalizations, and poison control; Youth Impacts - usage, arrests, school suspensions; and other information)

Insurance Institute for Highway Safety research: [www.iihs.org](http://www.iihs.org) (Highway safety and general marijuana information)

International Association of Chiefs of Police: [www.theiacp.org/projects/the-international-drug-evaluation-classification-program](http://www.theiacp.org/projects/the-international-drug-evaluation-classification-program) (Drug Recognition Expert (DRE) Section)

Measuring the Criminal Justice System Impacts of Marijuana Legalization and Decriminalization Using State Data: [www.ncjrs.gov/pdffiles1/nij/grants/253137.pdf](http://www.ncjrs.gov/pdffiles1/nij/grants/253137.pdf) (report for the U.S. Department of Justice using data from states with legalized marijuana)

Mothers Against Drunk Driving: [www.madd.org](http://www.madd.org) (resources on driving behavior and prevention)

National Institute on Drug Abuse: [www.drugabuse.gov](http://www.drugabuse.gov) (research and general information)

National Marijuana Institute: [www.thenmi.org](http://www.thenmi.org) (expansive list of state laws regarding marijuana and impairment)

National Transportation Safety Board: [www.nts.gov](http://www.nts.gov) (statistics, data and accident reports)

National Highway Traffic Safety Administration (NHTSA): [www.nhtsa.gov/enforcement-justice-services/drug-evaluation-and-classification-program-advanced-roadside-impaired](http://www.nhtsa.gov/enforcement-justice-services/drug-evaluation-and-classification-program-advanced-roadside-impaired) (Advanced Roadside Impaired Driving Enforcement (ARIDE) and Drug Recognition Expert (DRE) Manuals)

National Highway Traffic Safety Administration (NHTSA): [www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars](http://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars) (NHTSA Fatality Analysis Reporting System (FARS))

Politico.com: <https://www.politico.com/interactives/2019/cannabis-glossary-thc-cbd-questions/?fbclid=IwAR0cYQnagLS0vtkBScPPBmE2INIEjDPxkCVFBLcT0xovZVqZ3yY1YI-6-F0> (Everything you wanted to know about cannabis)

Responsibility Grows Here: [responsibilitygrowshere.com](http://responsibilitygrowshere.com) (Colorado public outreach program for responsible marijuana use)

Rocky Mountain High Intensity Drug Trafficking Areas (HIDTA):

[www.ncjrs.gov/ondcppubs/publications/enforce/hidta2001/rocky-fs.html](http://www.ncjrs.gov/ondcppubs/publications/enforce/hidta2001/rocky-fs.html) (Drug task force information)

Stop Drugged Driving: [www.stopdruggeddriving.org](http://www.stopdruggeddriving.org) (resources on policy and community out-reach)

The Cannabis Effect on Crime: Time-Series Analysis of Crime in Colorado and Washington State:  
[www.tandfonline.com/doi/pdf/10.1080/07418825.2019.1666903?needAccess=true&](http://www.tandfonline.com/doi/pdf/10.1080/07418825.2019.1666903?needAccess=true&) (research study)

Traffic Resource Center: [www.trafficresourcecenter.org](http://www.trafficresourcecenter.org) (impaired driving case law resources for judges)

We Save Lives: [wesavelives.org](http://wesavelives.org) (impaired driving prevention)

**As always, science is ever evolving and facts can change with time. Please consider the facts from any source.**

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