



Alaska Marijuana Control Board

Marijuana Handler Permit

Form MJ-10: Education Course Provider Application

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 160
Anchorage, AK 9950
marijuana.licensing@alaska.gov
<https://www.commerce.alaska.gov/web/amc>
Phone: 907.269.035

What is this form?

This marijuana handler permit education course provider application is required for all persons and entities seeking to have a marijuana handler permit education course approved by the Marijuana Control Board. Applicants should review **3 AAC 306.700**.

The course curriculum must cover at least the following topics:

- AS 17.37, AS17.38, and 3 AAC 306
- The effects of consumption of marijuana and marijuana products
- How to identify a person impaired by consumption of marijuana
- How to determine valid identification
- How to intervene to prevent unlawful marijuana consumption
- The penalty for an unlawful act by a licensee, an employee, or an agent of a marijuana establishment
- A written test, demonstrating that each student has learned the information correctly

This form must be submitted to AMCO's main office, along with a copy of the course curriculum, before any marijuana handler permit education course provider application will be considered by the board.

Applicant Information

Enter information for the business seeking to be an approved marijuana handler permit education course.

Applicant:	Edward McLean				
Course Name:	Budtenderexam.com				
Mailing Address:	1235 Grant Street Apt 612				
City:	Denver	State:	CO	ZIP:	80203
Email Address:	edwardmclean@outlook.com	Phone:	512-796-3842		

In-person ☐ Online ☒

Do you intend to provide this course in-person in a classroom-type setting, or online? Check all that apply.

☐☒

Signature of Applicant

Edward McLean

Printed Name

03/35/2017

Date

OFFICE USE ONLY					
Board Meeting Date:		Approved Y/N?:		Course #:	MHCP 019

Alaska Marijuana Handler Permit Course

Certificate fee: 40.00

Minimum passing score: 85%

Certificate Validity: 36 months

Course Description

Each licensee, employee, or agent of an establishment which sells, cultivates, manufactures, tests, or transports marijuana or a marijuana product, or who checks the identification of a consumer or visitor, should obtain a marijuana handler permit.

Topics covered in this course include the history of Marijuana, how to spot fake ID's, ways marijuana is used, types of marijuana, dealing with difficult situations, recognizing the signs of impairment and state laws and regulations.

Each licensee, employee, or agent of a marijuana establishment who sells, cultivates, manufactures, tests, or transports marijuana or marijuana product, or who checks the identification of a consumer or visitor, must obtain a marijuana handler permit card from AMCO before being licensed or beginning employment at a marijuana establishment, per 3 AAC 306.700. Marijuana handler permits are valid for three years from the date of issue.

The following instructions regarding new marijuana handler permit applications for submission to the Alcohol and Marijuana Control Office (AMCO) were created to assist you in completing forms and gathering necessary documents. The AMCO staff has worked diligently to make these instructions easy to understand and provide valuable training and resources for all applicants to ensure that permit applications and supplemental documents are completed accurately.

In order to receive a marijuana handler permit card, please complete the following steps:

1. Complete a Marijuana Control Board approval Marijuana Handler Permit Education Course.
2. Complete the marijuana handler permit Online Application.
3. You can submit your payment via check, money orders or cashier checks payable to "State of Alaska" in the Anchorage office or mail it to: Alcohol and Marijuana Control Office 550 W 7th Ave Suite 1600 Anchorage, Ak 99501
4. For applicants who live near Anchorage, Fairbanks, or Juneau: Bring a copy of your Standard Cover Page, your original Marijuana Handler Education Course Completion Certificate, an original passport photo, and a valid form of photo identification to your local AMCO office (see below for office hours). Your card will be issued and provided to you by AMCO staff. For applicants who do not live near Anchorage, Fairbanks, or Juneau: Mail a copy of your Standard Cover Page, your original Marijuana Handler Education Course Completion Certificate, an original passport photo, and a clear and readable color copy of a valid form of photo identification to the Anchorage AMCO office at the address below

Applicants should complete the following before proceeding with a new marijuana handler permit application:

- Read the Frequently Asked Questions (FAQs) provided at <http://www.commerce.alaska.gov/web/amco>
- Read these Instructions
- Complete a Marijuana Control Board approved Marijuana Handler Permit Education Course

Once you have completed the above bulleted requirements and still have a marijuana handler permit question, you may send your question in an email to amco.enforcement@alaska.gov.

State specific information

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How to contact the liquor authority

Alcohol & Marijuana Control Office
Attn: Enforcement
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501

AMCO Headquarters (Anchorage Office) Marijuana Handler Permit Card hours:

Wednesday: 9:00am – 12:00pm
Alaska Time Regular office hours: Monday – Friday: 9:00am – 4:00pm
Office closes: Every day from 12:00pm – 1:00pm for lunch

Lessons

- Introduction to Marijuana
- Marijuana Consumption & Effects on the Human Body
- How to Check for Proper Identification - Marijuana
- Alaska Laws and Regulations Overview
- AS 17.37: Medical Uses of Marijuana
- AS 17.38 Regulation of Marijuana in Alaska
- Alaska Alcohol Chapter 306 Regulation of Marijuana

Lesson 1: Introduction to Marijuana

Marijuana Education Course

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The Marijuana Education Course focuses on understanding the laws and rules regarding recreational marijuana, basic safe handling of marijuana items, checking identification and recognizing the signs of visible intoxication. The Marijuana Education Course is intended to provide the basic knowledge for applicants to receive a marijuana worker permit, and is not intended to cover all possible information necessary to safely participate in all aspects of the recreational marijuana market. For example, the Course does not cover specific information on marijuana extract or concentrate processing procedures, proper handling of compounds or other materials used in many marijuana businesses, or appropriate application of agricultural chemicals for growing plants; and training and information on those business-specific practices, as well as many other things, are the responsibility of individual licensed employers.

Glossary: Marijuana Handlers Course

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Activation time: the amount of time it is likely to take for an individual to begin to feel the effects of ingesting or inhaling a marijuana item.

Attractive to minors: packaging, labeling and marketing that features:

- Cartoons;
- A design, brand or name that resembles a non-cannabis consumer product of the type that is typically marketed to minors;
- Features symbols or celebrities that are commonly used to market products to minors.

Concentrate: a substance obtained by separating cannabinoids from marijuana by:

- A mechanical extraction process;
- A chemical extraction process using a nonhydrocarbon-based or other solvent, such as water, vegetable glycerin, vegetable oils, animal fats, isopropyl alcohol or ethanol; or
- A chemical extraction process using the hydrocarbon-based solvent carbon dioxide, provided that the process does not involve the use of high heat or pressure; or

Edible: food or potable liquid into which a cannabinoid concentrate, extract or dried marijuana leaves or flowers have been incorporated.

Extract: a substance obtained by separating cannabinoids from marijuana by:

- A chemical extraction process using a hydrocarbon-based solvent, such as butane, hexane or propane;

- A chemical extraction process using the hydrocarbon-based solvent carbon dioxide, if the process uses high heat or pressure

Cannabinoid product: an edible and any other product intended for human consumption or use, including a product intended to be applied to the skin or hair that contains cannabinoids or dried marijuana leaves or flowers.

Cannabis Tracking System or CTS: the system for tracking the transfer of marijuana items and other information.

Canopy: the surface area utilized to produce mature marijuana plants calculated in square feet and measured using the outside boundaries of any area that includes mature marijuana plants including all of the space within the boundaries.

Child resistant package: the package has been certified by a qualified third party child-resistant package testing firm to ensure that it is designed or constructed to be significantly difficult for children under five years of age to open and not difficult for adults to use properly.

Civil Liability: when a private person files suit against another private person based on injury or damage to a person or property.

Consumer/Customer: a person who purchases, acquires, owns, holds or uses marijuana items other than for the purpose of resale.

Criminal Liability: a prosecution by the government against an individual for violating criminal code.

Exit Package: a sealed container provided at the retail point of sale in which any marijuana items already within a container are placed. Immature marijuana plant: a marijuana plant that is not flowering.

Intended for human consumption: intended for a human to eat, drink, or otherwise put in the mouth but does not mean intended for human inhalation.

Limited access area: a building, room, or other contiguous area on a licensed premises where a marijuana item is produced, processed, stored, weighed, packaged, labeled, or sold, but does not include a point of sale area on a licensed retailer premises.

Marijuana: the plant Cannabis family Cannabaceae, any part of the plant Cannabis family Cannabaceae and the seeds of the plant Cannabis family Cannabaceae.

Marijuana flowers: the flowers of the plant genus Cannabis within the plant family Cannabaceae.

Marijuana items: marijuana, cannabinoid products, concentrates and extracts.

Marijuana leaves: the leaves of the plant genus Cannabis within the plant family Cannabaceae.

Marijuana processor: a licensee who processes marijuana items in this state.

Marijuana producer: a licensee who produces marijuana in this state.

Marijuana retailer: a licensee who sells marijuana items to a consumer in this state.

Marijuana wholesaler: a licensee who purchases marijuana items in this state for resale to a person other than a consumer.

Mature marijuana plant: a marijuana plant that is a flowering.

Minor: any person under 21 years of age.

Minor Decoy: a single covert, on-site visit in which an authorized representative poses as a consumer and attempts to purchase or purchases a marijuana item from a licensee.

Non-Toxic: not causing illness, disability or death to persons who are exposed.

Permittee: any person who holds a Marijuana Worker Permit.

Premises or licensed premises: includes the following areas of a licensed business:

- All public and private enclosed areas at the location that are used in the business operated at the location, including offices, kitchens, rest rooms and storerooms;
- All areas outside a building that the Commission has specifically licensed for the production, processing, wholesale sale or retail sale of marijuana items; and
- For a location that the Commission has specifically licensed for the production of marijuana outside a building, that portion of the location used to produce marijuana.

Processes: the processing, compounding or conversion of marijuana into cannabinoid products, cannabinoid concentrates or cannabinoid extracts;

Produces: the manufacture, planting, cultivation, growing or harvesting of marijuana.

Public place: a place to which the general public has access and includes, but is not limited to, hallways, lobbies and other parts of apartment houses and hotels not constituting rooms or apartments designed for actual residence, and highways, streets, schools, places of amusement, parks, playgrounds and areas used in connection with public passenger transportation.

Shipping Container: any container or wrapping used solely for the transport of a marijuana items in bulk to a marijuana licensee as permitted by the state.

Tincture: a solution of alcohol, cannabinoid concentrate or extract, and perhaps other ingredients intended for human consumption or ingestion;

Topical: a cannabinoid product intended to be applied to skin or hair.

Usable marijuana: the dried leaves and flowers of marijuana.

Visible intoxication: when a person's physical and mental abilities are diminished by alcohol or drugs to a point that it can be observed by others.

What is Marijuana?

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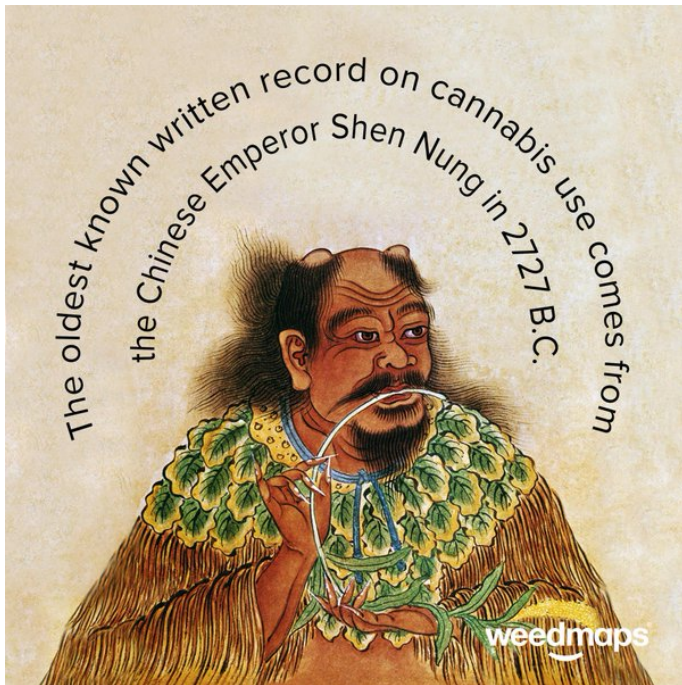
Marijuana is a mind-altering (psychoactive) drug. Similar to hemp, it comes from the cannabis plant. The plant's primary drug effects come from the chemical delta-9-tetrahydrocannabinol, or "THC." Marijuana is smoked, "vaped" (inhaling the vapor), or ingested in foods or teas. Over the last few decades, the concentration of THC in the cannabis plant has been increasing. In addition, the plant extracts are more potent. Marijuana is widely used, especially in adolescents and young adults. In the US, there are about 20 million users (about 7.5% of people aged 12 or older).

History of Marijuana

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Marijuana has been used as an agent for achieving euphoria since ancient times; it was described in a Chinese medical reference traditionally considered to date from 2737 B.C. Its use spread from China to India and then to N Africa and reached Europe at least as early as A.D. 500.

The first direct reference to a cannabis product as a psychoactive agent dates from 2727 BC, in the writings of the Chinese emperor Shen Nung. The focus was on its powers as a medication for rheumatism, gout, malaria, and oddly enough, absent-mindedness. Mention was made of the intoxicating properties, but the medicinal value was considered more important. In India though it was clearly used recreationally. The Muslims too used it recreationally for alcohol consumption was banned by the Koran. It was the Muslims who introduced hashish, whose popularity spread quickly throughout 12th century Persia (Iran) and North Africa.



Marijuana in America

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In 1545 the Spanish brought marijuana to the New World. The English introduced it in Jamestown in 1611 where it became a major commercial crop alongside tobacco and was grown as a source of fiber.



By 1890, hemp had been replaced by cotton as a major cash crop in southern states. Some patent medicines during this era contained marijuana, but it was a small percentage compared to the number containing opium or cocaine. It was in the 1920's that marijuana began to catch on. Some historians say its emergence was brought about by Prohibition. Its recreational use was restricted to jazz musicians and people in show business. "Reefer songs" became the rage of the jazz world. Marijuana clubs, called tea pads, sprang up in every major city. These marijuana establishments were tolerated by the authorities because marijuana was not illegal and patrons showed no evidence of making a nuisance of themselves or disturbing the community. Marijuana was not considered a social threat.

Marijuana was listed in the United States Pharmacopeia from 1850 until 1942 and was prescribed for various conditions including labor pains, nausea, and rheumatism. Its use as an intoxicant was also commonplace from the 1850s to the 1930s. A campaign conducted in the 1930s by the U.S. Federal Bureau of Narcotics (now the Bureau of Narcotics and Dangerous Drugs) sought to portray marijuana as a powerful, addicting substance that would lead users into narcotics addiction. It is still considered a "gateway" drug by some authorities. In the 1950s it was an accessory of the beat generation; in the 1960s it was used by college students and "hippies" and became a symbol of rebellion against authority.

The Controlled Substances Act of 1970 classified marijuana along with heroin and LSD as a Schedule I drug, i.e., having the relatively highest abuse potential and no accepted medical use. Most marijuana at that time came from Mexico, but in 1975 the

Mexican government agreed to eradicate the crop by spraying it with the herbicide paraquat, raising fears of toxic side effects. Colombia then became the main supplier. The “zero tolerance” climate of the Reagan and Bush administrations resulted in passage of strict laws and mandatory sentences for possession of marijuana and in heightened vigilance against smuggling at the southern borders. The “war on drugs” thus brought with it a shift from reliance on imported supplies to domestic cultivation (particularly in Hawaii and California). Beginning in 1982 the Drug Enforcement Administration turned increased attention to marijuana farms in the United States, and there was a shift to the indoor growing of plants specially developed for small size and high yield. After over a decade of decreasing use, marijuana smoking began an upward trend once more in the early 1990s, especially among teenagers.

Cannabis 3,000 BC - 1,500 AD

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The correct name for the plant that provides marijuana is cannabis. The word marijuana comes from Mexican Spanish, but the reason for this name is not clear.

Thousands of years before the illicit drug industry in the Americas, the cannabis plant was used medicinally and industrially. For more than 3,000 years, it has been known that cannabis fibers were strong and durable, and provided excellent raw materials for cord and rope.

In ancient China and Egypt, cannabis was used medicinally for soreness from gout, rheumatism and other problems. The ancient Greeks also used cannabis to relieve inflammation.

When cannabis plants are used for fiber for ropes or clothes, the plant is referred to as hemp. The Chinese used hemp fibers for fabric and ropes starting as far back as 1000 BC. Fishing nets were also made of hemp. The world's oldest piece of paper dates back to around 500 BC and was made of hemp fibers. There was no cotton used in China until around 900 AD, increasing the importance of hemp.

While the intoxicating ingredients of cannabis are very low when the plant is cultivated in the best manner to produce clothing or rope, there is evidence that the ancient Chinese knew about this effect of the plant. Around 100 AD, a medical reference book stated that if the seeds were taken in excess, it “will produce hallucinations.” The seeds were later mixed with wine to create an anesthetic that could be used during surgery.

The Romans and Vikings began to use hemp fibers for ropes. Both cultures relied heavily on sailing ships for exploration, colonization and trade. They lived or died by the ropes securing their sails. If ropes broke during a storm, the ship could be lost.

Much of the hemp used by the Romans was cultivated in Sicily. The Arabs had brought hemp seeds to Sicily, after using the plant for medicine, rope and cloth for hundreds of years.

Hemp ropes and fabrics continued to be used in Italy for centuries, particularly around Venice. Venice was known for its beautiful fabrics made of hemp, that were very long lasting and nearly as lovely as those made of silk. The Venetian hemp industry was competitive and highly regulated. Different regions around Venice produced hemp fibers of varying grades so the fibers were carefully labeled as to their origins. Hemp ropes also contributed to the superiority of the commercial ships carrying Venetian commodities to other parts of the world.

Gradually, the use of hemp moved to England, which became a major sea power around 1500 AD. King Henry VIII greatly increased the number of ships in the English navy and ordered that more cannabis or hemp be planted to provide the ropes for these ships. For various reasons, English farmers could not meet the demand for hemp and so country began to import the fiber from Russia. England put great effort into maintaining their supplies of hemp as their trade and colonization activities in the Seventeenth and Eighteenth Centuries required the construction and maintenance of hundreds of ships.



Marijuana History - America

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When cannabis is used as a drug, it is called marijuana. When cannabis is used for cloth, paper or rope, it is called hemp. The growing methods for the two uses are different and so hemp normally has a very low quantity of the intoxicant THC.

As the American colonies were founded and grew, hemp was an important crop. As in Europe, clothes were often made out of hemp. Ropes made of hemp were needed for America's commercial and defense ships. Hemp was also used to make oakum - twisted and tarred hemp fibers that were pounded in between the boards of a ship as waterproofing.

Enormous amounts of hemp were needed for one large sailing ship. A letter from 1797 documented the need for 50 tons of hemp for the USS Constitution.

When fabric imports from England were cut off by America's independence, cloth made from American hemp became far more important. The American colonists also had flax (linen) and wool but cotton had to come from the West Indies in the early days. Hemp, on the other hand, could be grown as far north as New England.

Both Thomas Jefferson and George Washington were hemp farmers, perhaps not successful ones. Betsy Ross's prototype American flag was made from hemp fibers. The paper used for the Declaration of Independence was also made from hemp fibers.

****There was more demand for hemp for clothing and paper than could be supplied in the early years. **Much of the American hemp was not considered of high quality and so was unsuitable for shipbuilding. One of the reasons for this was the American method of processing the fibers which was cheaper but resulted in a less durable product.**



In the 1800s, America was therefore importing high-quality hemp for ship rigging from Russia, as the English had done. Some hemp was imported from Italy, as well. Finally, comparison tests (using the USS Constitution) showed that American hemp was approximately as durable as Russian hemp. Documents from that time period discuss the challenge of getting American farmers to use the same processing methods as the Russians, which would result in an improved product. At this time, much of the hemp was grown in Kentucky or Virginia.

Durable clothing and other items continued to be made from hemp as Americans headed west. Early blue jeans worn by miners panning for gold were made of hemp and the fabric for covered wagons that crossed the prairies were also made from hemp fiber.

When cotton did begin to be farmed in America, it was so labor-intensive to process that it did not begin to be popular until the invention of the cotton gin. In the early 1800s, this machine spread in popularity, and so did cotton as a crop, replacing hemp to some degree.

In the late 1800s, cannabis began to be used medicinally in America, as it had been used in other countries for thousands of years. There were no legal issues with using cannabis extracts in this way until well into the Twentieth Century.



Medicines that Contained Cannabis Extracts

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Medicines that Contained Cannabis Extracts:

- Bromidia: Cannabis and chloral hydrate, a hypnotic for “restlessness.”
- From Squibb, Zinc phosphide and cannabis pills: They also contained strychnine and sodium arsenite (a form of arsenic); chocolate coated, for “neuralgia, sciatica and spasmodic pains generally.”
- Da-Ka-Ta: Medication for corns on the feet.
- Dr. Macalister’s Cough Mixture: Cannabis, chloroform and alcohol, for children and adults. “A safe and sure remedy.”
- Neuralgic pills: Main contents opium and cannabis.
- Chlorodyne: Morphine, cannabis and nitroglycerin.

After the Mexican revolution in 1910, many Mexican immigrants made their way into the United States and brought recreational marijuana usage with them. The reaction to this uncontrolled immigration initiated some of the first legal attacks on marijuana. In 1913, California was the first state to quietly outlaw cannabis consumption.



Twentieth Century Marijuana

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In the early Twentieth Century, cannabis began to attract attention from legislative bodies. Taxes and laws began to be enacted against the cultivation of industrial cannabis or the use of marijuana as an intoxicant or ingredient in medications.

One of the first laws was the Pure Food and Drug Act of 1906 that required that the contents of patent medicines be revealed. So the inclusion of morphine, alcohol, cocaine, heroin or cannabis had to be listed on the label, along with the quantity of the drug. It was not illegal to sell these medications over the counter - the law only required that the ingredients be revealed as many of these concoctions had previously kept their contents a secret.

By 1914, opium addiction was a widespread problem in the US, with an estimated one in every 400 people being addicted. Many women became addicted after being given opium as medication for menstrual or emotional problems. Many men had become addicted to another opiate, morphine, after the Civil War since this was the painkiller available for those who had become injured. The Harrison Narcotics Act of December 1914 imposed controls and taxes on the distribution of opiates or cocaine. This was one of the earliest curbs on the trafficking of addictive drugs in the US. It was shortly followed by the prohibition of alcohol production and sale, a ban that was repealed in 1933.

Various attempts to create federal bans on marijuana use followed these efforts, but failed.

One by one, states began to pass their own laws against marijuana sales and consumption:

- 1915 California, Utah, Wyoming
- 1919 Texas
- 1923 Iowa, Nevada, Oregon, Washington, Arkansas
- 1927 Nebraska



Northern states like Maine, Vermont, Massachusetts and New York considered cannabis a narcotic along with opium, morphine, heroin and codeine and had already outlawed its use without a doctor's prescription.

Despite these controls, marijuana became more popular and use spread to the Southwestern US, New Orleans and the New York area. The core users in each area were the ethnic groups who had moved into those areas in search of work or a good time: jazz musicians in New Orleans, Mexican laborers and African-Americans who left the South to find jobs in the big city. The association of marijuana use with ethnic groups aggravated the antagonism of lawmakers who were generally affluent and Caucasian.

In the early 1930s, jazz and swing musicians published a number of songs that featured marijuana, such as Cab Calloway's "That Funny Reefer Man" and Benny Goodman's "Sweet Marihuana Brown."

In 1930, the Federal Bureau of Narcotics was founded, with Harry Anslinger as its director. Anslinger undertook to outlaw the use of cannabis by spreading stories of murder and rampant insanity among those who used the drug. By 1937, he had succeeded in getting the Marijuana Tax Act passed which criminalized the use of cannabis unless proper taxes were paid. This law suppressed the use of hemp for cloth or rope. However, during World War II, hemp was needed for parachutes, cordage and other military supplies. American farmers were given incentives to grow hemp for the war effort.

Between 1952 and 1956, two laws were passed that brought America into its current philosophy of outlawing addictive drugs and arresting drug users. The first was the Boggs Act and the second was the Narcotics Control Act of 1956. First-time possession of marijuana could receive a sentence of two to ten years in prison.

There may have been well-meaning intentions behind these laws but they failed to stop the growth in marijuana use that was just around the corner.

Marijuana in Second Half of Twentieth Century

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As American appetites for marijuana increased, the stakes became higher, traffickers defended their turf more intensely, and law enforcement budgets inflated to try to keep pace with the illicit cargoes.

The Colombians who were moving the largest proportion of marijuana into the US were also bringing in cocaine and heroin. Shipments got bigger and so did seizures. In 1990, a half million pounds of marijuana were seized in the US. By 2006, this quantity had increased to 2.5 million pounds.

Potency of marijuana averaged between 3% and 4.5% in the 1990s and then began to climb steadily for the next decade. By 2008, the overall average THC content would hit 8.8%. Sinsemilla averaged between 11% and 13% while commercial marijuana averaged 5% to 6%.

In 2008, the highest result from testing cannabis samples was 37% THC.



Medical Marijuana Begins to be Approved

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In 1996, California became the first state to approve the medical use of marijuana, despite federal bans remaining on the books. Initial approval was restricted to the treatment of AIDs, cancer, muscular spasticity, migraines, and several other disorders.

As other states began to launch legislation to approve medical use of marijuana, former presidents Ford, Carter and Bush released statements urging voters to reject these initiatives because they circumvented the standard channels for approval of medications by the Food and Drug Administration. Cannabis as medicine therefore would skip tests that would prove its effectiveness and safety. Nevertheless, in November 1998, Alaska, Oregon and Washington passed legislation to legalize medical marijuana. Maine and Hawaii soon followed after, with many more states passing similar legislation in the next several years.

Despite state laws permitting medical use of marijuana, the federal government agencies and states would go head to head on the issue many times in the next decade.

Meanwhile, drug trafficking organizations continued to ship massive amounts of the drug into the US. By a few years into the new millennium, it was estimated that about 30 million pounds of marijuana were being trafficked in the US each year.

State by state, efforts continue to legalize the use of medical marijuana.



Lesson 2: Marijuana Consumption & Effects on the Human Body

How Marijuana is Consumed

Slide duration: 2 seconds

There are four main methods of ingesting marijuana: inhalation, oral, sublingual, and topical. Each method has unique characteristics that make it more or less appropriate for some consumers. Below is an overview of the various methods of ingestion and their risks and benefits.

(<http://www.drugpolicy.org>)



How Marijuana is Consumed: Inhalation

Slide duration: 2 seconds

Inhalation is the fastest method of delivery to the consumer. Most consumers prefer using marijuana this way. When a consumer inhales marijuana, the majority of cannabinoids enter the body through the lungs where they are passed along directly into the consumer's blood stream. The effect is almost instantaneous. For some people who use marijuana medicinally, this makes inhalation very effective--similar to the use of an inhaler for an asthma attack. In a 2007 study in the Journal of Chemistry and Biodiversity, subjects who consumed cannabis via inhalation reported feeling the effects of the medication within minutes, with peak effects around the hour mark and total duration of effects around two hours. Another benefit to inhalation is the ability to easily titrate one's dose, making overconsumption less likely. However, it is important to note that there can be significant variation in these times due to factors, such as cannabinoid content, depth and length of inhalation (a.k.a. smoking style), and previous marijuana exposure (tolerance).



There are two ways to inhale marijuana, **smoking** and **vaporizing**. Smoking marijuana involves burning the flowers and inhaling the active components of the plant that are released. Vaporization acts in the same way, but the plant is not burned, rather it is heated to a temperature at which the active ingredients in the plant are released as vapor that is inhaled by the consumer. In fact, research done in 2004 in the Journal of Cannabis Therapeutics on vaporization via the Volcano vaporizer shows vaporization to be the most efficient way to administer cannabinoids via inhalation. Vaporization is a healthier alternative to smoking because it eliminates the irritation of the throat and lungs from that comes from exposure to high heat and burned organic matter. However, purported hazards of smoking marijuana have not been proven in the scientific literature. In a 2012 article published in the Journal of the American Medical Association, the authors studied over 5000 participants over 20 years, and found that “occasional and low cumulative marijuana use was not associated with adverse effects on pulmonary function.”



While vaporization is a good alternative to smoking, there are some issues with the new wave of oil based vaporizers. These new vaporizers have revolutionized the way that many people consume marijuana. However, they have not been tested for safety or efficacy over time in large samples. The vast majority of these devices utilize oils, which are concentrated forms of cannabis. While flowers can contain 5-20% THC, the concentrated oils contain up to 80% THC. This might be too strong for a novice consumer. Furthermore, ingredients used in the process of extracting oils have not been safety tested and there is the risk that there are residues from these ingredients in the final product. However, emerging applications of well-established clean extraction technologies, such as supercritical CO2 extraction, are being applied by those in the marijuana industry with some success. Overall, more research and testing of these products is needed.

How Marijuana is Consumed: Oral

Slide duration: 2 seconds

Marijuana can also be ingested orally. This can be in the form of edibles, tinctures, capsules or oils. The onset for oral ingestion is slower and the effects are stronger and last longer than with inhalation. People who consume marijuana orally usually report feeling the effects within thirty minutes to one hour or longer, with peak effects around the two hour mark and total duration of effects ranging as long as six hours. This is because, during the process of digestion, the cannabinoids undergo a chemical transformation that makes them stronger. Also, when ingesting orally, none of the product is lost by sticking to the pipe or rolling paper. People using marijuana medicinally for long lasting chronic pain often prefer oral ingestion because it lasts longer and they don't have to consume as often. However, marijuana ingested orally is difficult to properly titrate dosage due to the increased time of effect onset.



How Marijuana is Consumed: Sublingual

Slide duration: 2 seconds

Marijuana can also enter the blood stream when placed under the tongue and held in the mouth; within the mouth there are a large number of blood vessels which can absorb cannabinoids. Common examples of these type of products include dissolvable strips, sublingual sprays, or medicated lozenges or tinctures. Sativex, the one clinically approved, cannabinoid medication that includes the entire spectrum of natural cannabinoids, is delivered as a sublingual spray. The time of onset for this method of consumption is similar to those seen in general oral consumption, however, some studies have reported an earlier onset.



How Marijuana is Consumed: Topical

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A final way to consume marijuana is through topical applications. These come in the form of lotions, salves, bath salts and oils that are applied to the skin. The skin has a relatively complex absorption process that is based on a chemical's ability to dissolve in H₂O. The cannabinoids penetrate the skin and work to reduce pain and inflammation. This method is very popular with older consumers because it works well on localized pain (like from arthritis) and is non-psychoactive. While not widely studied, there is research that shows that topical application of cannabinoids has an onset of action within minutes locally (i.e. creams and balms applied to a joint), with duration of these effects lasting one to two hours. Individuals who used patches reported onset of action within two hours and duration of effect lasting upwards of two days due to the time released nature of this method of administration. Additionally, the topical application of marijuana does not allow a significant amount of cannabinoids to reach the brain and therefore is unlikely to cause any intoxication.



Factors that Determine Marijuana's Potency and Effects

Slide duration: 2 seconds

Marijuana contains more than 60 related psychoactive chemicals, called cannabinoids; however, the most abundant of these is delta-9-tetrahydrocannabinol (THC). **The amount of THC ingested when using marijuana determines the intensity of the high**, and the potency of different strains of marijuana is a result of the level of THC they contain—varying from 3% to 20%, on average. Industrial varieties of hemp, used to make textiles and rope, contain little to no THC and do not produce a demonstrable high at all.

Dried marijuana is most often smoked, but can also be used to infuse various foods and eaten. THC-rich marijuana extracts are also increasing in popularity, including hash oil and a hard, brittle preparation called “shatter.” Such extracts are particularly dangerous because extremely large amounts of THC can be ingested by users very quickly.

The precise effects an individual will experience depend on:

- How much marijuana is consumed.
- How potent it is.
- How it is ingested.

Smoking produces intoxication quickly, within minutes, and its effects are fairly predictable from one time to another.

Eating marijuana-infused food causes the THC to be absorbed more slowly, with intoxication beginning between 30 minutes to 2 hours after ingestion, and the effects can be difficult for the user to predict.



Types of Medical Marijuana Strains

Slide duration: 2 seconds

Indica and Sativa Medical Marijuana Strains

Medical marijuana is based on two different species of marijuana, Indica and Sativa (as well as hybrids that mix the two). Medical marijuana strains come from breeding and cross-breeding these plants for different qualities, including the strength of the “high” that gives pain relief, the yield of the plant, and the plant’s tolerance to different environments. Dispensaries will always tell you what strain you are buying; in fact, it is required to be labeled on the jar. In general, Indica medical marijuana strains will provide strong “body effects” which are good for pain relief.

It is important to keep in mind that a very strong or “heavy” high is sometimes called a “body stone,” meaning that patients should not plan on being active on the day they use it. Sativa strains will provide strong “mind effects” that are good for relaxation and conditions that affect the mind. Hybrids try to capture the best of both these strains.

Here are a few of the most popular medical marijuana strains to try based on the conditions they treat.

- **Cancer:** Arizonan Western Light Purp (indica/sativa), Cinderella 99 (sativa/indica)
- **Chronic Pain:** Afghani #1 (pure indica or indica/sativa), Big Bud (indica/sativa)
- **Depression:** Blueberry (indica/sativa), OG-18 (indica/sativa)

- **Glaucoma:** Pluto OG (indica), most other indica strains
- **Headaches:** White Gold (indica/sativa), Super Lemon Haze (indica/sativa)
- **Insomnia:** Northern Lights (indica/sativa)
- **Joint Pain:** Purple Kush (indica)
- **Multiple Sclerosis (MS):** Island Sweet Skunk (sativa/indica), Sour Diesel
- **Muscle Spasms:** White Widow (indica/sativa), Black Domina (indica), Apollo 11 (sativa)
- **Nausea:** Dutch Haze (sativa/indica), Kandy Kush (indica/sativa)



What is Hybrid Marijuana?

Slide duration: 2 seconds

Choosing the right marijuana strain is important to have the best experience possible. There are more than 1000 different strains that range from pure sativas to pure indicas and in between. A hybrid strain is exactly what it sounds like—it's a combination of sativa and indica plants and can be bred to provide specific qualities giving consumers the best of both worlds.

Hybrids can be dominant to either sativa or indica. If you choose a hybrid strain that is dominant to one way or the other, expect to experience more of the effects associated with the dominant strain.

Hybrid strains fall in to one of three categories:

- **Sativa dominant Hybrids** These hybrids typically provide a heady high that pairs well with a relaxing body feeling. Sativa dominant hybrids are typically used to relax and unwind both physically and mentally.
- **Balanced Hybrids (50/50)** These are typically a true balance of indica and sativa plants. These strains are ideal for those looking to balance mind and body highs.
- **Indica dominant Hybrids** Indica dominant hybrids generally provide a strong body high which makes them ideal for moderate pain relief or relaxation and sleep in the evening.



What is Hash and How Does It Relate to Cannabis?

Slide duration: 2 seconds

Hashish, or **hash**, is a cannabis-family recreational drug that is consumed by smoking or oral ingestion; typically in a pipe, vaporizer or joints, where it is normally mixed with cannabis or tobacco, as pure hashish will not burn if rolled alone. Hash is an extracted cannabis product composed of compressed or purified preparations of stalked resin glands, called trichomes, from the plant. It contains the same active ingredients as marijuana—such as tetrahydrocannabinol (THC) and other cannabinoids—but often in higher concentrations than the unsifted buds or leaves from which the marijuana is made.

Hashish may be solid or resinous depending on the preparation; pressed hashish is usually solid, whereas water-purified hashish—often called "bubble melt hash"—is often a paste-like substance with varying hardness and pliability; its color, most commonly light to dark brown, can vary from transparent to yellow, tan, black or red. This all depends on the process and amount of solvent left over.



What is Keif?

Slide duration: 2 seconds

Kief, keef or keif is a fine powder made from dried resin glands (trichomes) that are found on the leaves of the cannabis plant. It contains a high concentration of the psychoactive chemical or THC that causes euphoric feelings or opium-like high that can last for hours. Kief is also called crystal or pollen.



What is a Cannabis Tincture?

Slide duration: 2 seconds

Cannabis tinctures, also known as green or golden dragon, are alcohol-based cannabis extracts – essentially, infused alcohol. In fact, tinctures were the main form of cannabis medicine until the United States enacted cannabis prohibition. With a name like “green dragon,” you might think cannabis tinctures are not for the faint of heart, but they’re actually a great entry point for both recreational and medical users looking to ease into smokeless consumption methods.



How to Dose and Use Cannabis Tinctures

Slide duration: 2 seconds

Tincture dosages are easy to self-titrate, or measure. Start with 1mL of your finished tincture and put it under your tongue. If you’re happy with the effects, you’re done. Otherwise, try 2mL the next day and so on until you find the volume you’re happy with (ramp up slowly while testing your desired dosage so you can avoid getting uncomfortably high).

According to The Herbal Medicine-Maker’s Handbook, tinctures will last for many years when stored in a cool, dark location. When combined with easy self-titration, the long shelf life means you can make larger quantities of tinctures at once and have a convenient, accurate way to ingest cannabis.

Compared to the traditional cannabis-infused brownie, tinctures are a low calorie alternative. If you make your tincture with 190-proof alcohol, you’re looking at about 7 calories per mL. Unless you have an extremely weak tincture, you’ll easily stay under your typical brownie’s 112 calorie count (and let’s face it, your brownies are probably far more caloric than that).



Short-term Effects of Marijuana

Slide duration: 2 seconds

Marijuana is often used for its “high,” and can make people feel more relaxed, alter the senses, and cause time distortion. It can also impair thinking, judgment, coordination, and memory. In some people, it may lead to paranoia or anxiety. Physical effects may include bloodshot eyes, dry mouth, slurred speech, and increased heart rate.

These sensations may last up to four hours after inhaling marijuana smoke, or up to 12 hours if consumed, though performance impairments may last for much longer.



Long-term Effects of Marijuana

Slide duration: 2 seconds

Smoking marijuana can irritate the lungs and lead to breathing problems like cough, excess mucus, bronchitis, and worsening of conditions like asthma and cystic fibrosis. It is not clear if smoking marijuana is linked to lung cancer. Marijuana use during pregnancy can also harm a baby’s brain development.

We are learning more about the long-term effects of marijuana, and this leads to even more questions as we realize there is a lot we *don’t* know. What is clear is that some of the long-term effects correspond to heavy use. However, heavy use is difficult to define given the nature and limitations of past studies, the different ways marijuana and its extracts are used, and the shifts in THC concentration in cannabis.

The biggest health risks appear to be in those who start using as teenagers or young adults when their brains are still developing. In youths who use heavily, studies have shown deterioration in their learning and cognitive thinking that persists into adulthood, even after they have stopped using marijuana. There also appears to be a link between marijuana use and certain mental illnesses. Though most marijuana users will not develop dependence and addiction, it is more common in teenage users.



The Effects of Marijuana on the Brain

Slide duration: 2 seconds

Most Americans have a general idea about the side effects associated with marijuana use, and these effects are the result of how marijuana acts on the brain. THC is the short-form term for delta-9-tetrahydrocannabinol, which is the psychoactive chemical in marijuana. Blood carries THC to the brain where it acts on cannabinoid receptors (the complexes that interact with the cannabinoid neurotransmitter). Cannabinoids naturally occur in the body.

The general effect of cannabinoids on cannabinoid receptor sites is to slow down communications between the cells in the body and the brain. The presence of THC has a similar effect, which is why marijuana is often associated with a relaxing and calming effect. THC also triggers the brain's reward system, which results in the pleasurable effects associated with marijuana.



Medical Benefits of Marijuana

Slide duration: 2 seconds

Medical use of marijuana ("medical marijuana") is somewhat controversial. In the United States, current FDA-approved medications containing synthetic THC are dronabinol (Marinol capsules, Syndros liquid) and nabilone (Cesamet). These drugs are prescribed as appetite stimulants in AIDS patients and for chemotherapy-related nausea and vomiting. They are sometimes used off-label for similar symptoms in other conditions. An oral spray nabiximols (Sativex) is approved in other countries for treatment of multiple sclerosis muscle spasticity and cancer-related pain not managed by other pain medication, and is undergoing further evaluation in the U.S.

Although marijuana can help relieve the symptoms of certain medical conditions, its use is still illegal on a federal level, and because we don't have data from large, long-term, well-designed studies, the FDA continues to have concerns about potential risks versus benefits. Fortunately, studies continue on marijuana, THC, and cannabidiol (a component of marijuana which does not have the mind-altering effects of THC). Early research shows cannabidiol and its derivatives hold potential promise in additional conditions like drug-resistant epilepsy and some psychiatric disorders (e.g., anxiety, substance use disorders, schizophrenia, and psychosis).

Some states have passed laws, contrary to federal laws, to allow the use of marijuana for medical conditions. Some states have also made the move to decriminalize marijuana use by adults or have similar measures on upcoming ballots. It is unclear what health impact decriminalization of marijuana would have. The experiences of other states and countries that have made these legal changes were varied and unpredictable. The greatest threat would be an increase in adolescent use.



The Effects of Marijuana Use

Slide duration: 2 seconds

The effects of marijuana use can be different for everyone. Common effects may include:

- A happy, relaxed or “high” feeling.
- Slower reactions and hand/eye coordination.
- Dizziness.
- Distorted perceptions of time and distance.
- Trouble thinking, learning and remembering.
- Confusion, anxiety, panic or paranoia.
- Faster heart rate by 20 to 100 percent.
- Increased blood pressure.
- Less interest in normal activities.
- Increased appetite.
- Dry mouth.
- Red eyes.
- Psychosis — seeing or hearing things that aren't real (more common with higher doses of THC).
- These effects typically last two to four hours after marijuana is smoked or inhaled. When marijuana is eaten, the effects take longer to start and may last four to 10 hours. Marijuana can vary in its potency, or strength, depending on the plant and extraction process.



Impairment

Slide duration: 2 seconds

For occasional users, using 10 mg or more of THC is likely to cause impairment. This impacts your ability to drive, bike or perform other safety-sensitive activities.

People may think that they're "safer" drivers while stoned since they drive more slowly. However, research shows that driving while high may double a person's risk of an automobile accident. Any person under the influence of marijuana should not drive, bike or operate machinery.

- Smoking: Wait at least six hours after smoking up to 35 mg of THC before driving or biking. If a person has smoked more than 35 mg, wait longer.
- Eating or drinking: Wait at least eight hours after eating or drinking up to 18 mg of THC before driving or biking. If you've consumed more than 18 mg, wait longer.
- Marijuana affects individuals differently. These times are estimates based on research findings. If you're unsure how marijuana will affect you, make other plans for transportation or don't drive.
- Multiple substances: Using alcohol and marijuana at the same time is likely to result in greater impairment than either one alone.



Increased Potency

Slide duration: 2 seconds

Marijuana is not only a popular drug; it is an evolving one. The National Institute on Drug Abuse warns that the potency of marijuana has been on the rise for the last few decades. The increased potency mainly stems from the ability of marijuana cultivators to continually create new, more powerful strains.

The increased THC may result in uncommon and easily observable side effects. As *CNN* reports, Dr. Stuart Gitlow of the American Society for Addiction Medicine has found that approximately one in every 100 people who uses highly potent marijuana will manifest psychotic symptoms. Further, as *Fox News* reports, one study found that smoking marijuana with high THC content can lead to the onset of psychiatric disorders.

These observations about super potent marijuana translate into guidance for concerned individuals. Sudden or uncharacteristic psychotic symptoms (e.g., a disconnection from reality) can be evidence of marijuana use (although it may separately be a sign of a mental health disorder). Psychiatric side effects may be more acute in a person who has an existing mental health disorder, but individuals without a diagnosis are not immune from severe reactions. It is important to note that super potent marijuana is not the same as "synthetic marijuana" (marijuana-like chemicals created in foreign laboratories or domestic illegal ones). According to reports on synthetic marijuana side effects, some users have experienced extreme aggression, the inability to speak, hallucinations, and/or general unresponsiveness.



It is important to understand that marijuana use can lead to addiction. There are two main components of physical dependence on marijuana.

First, regular users will develop a tolerance, which means that over time, they will require a higher volume of marijuana to experience the desired familiar effects. Second, if regular users stop or significantly reduce use, they may experience withdrawal symptoms.

Although marijuana withdrawal is generally considered to be mild, effects can include irritability or anxiety. In heavy users, marijuana withdrawal symptoms can include cravings for marijuana, trouble sleeping, irritability, anxiety, and boredom.

Signs of Marijuana Use

Slide duration: 2 seconds

The following are the signs of marijuana use:

- Loss of train of thought during conversation. Trying to hold a normal conversation with an individual who is high on marijuana can be a challenge. While intoxicated the individual will lack the ability to stay focused on the topic of conversation, and may drift into other, unrelated subject matters.
- Increased appetite. One of the effects of marijuana use is binge eating. After smoking pot, the individual will want to gorge himself on large amounts of junk food and sweets.
- Lack of energy, loss of motivation. Marijuana causes a distinct lack of motivation in the user. Look for a loss of interest in activities that were once a prominent part of the individual's life. Also, the marijuana user may sleep excessively until late in the day. Bad sleep habits are another common sign of marijuana use.
- Possession of drug paraphernalia related to smoking marijuana. Look for materials such as bongs, rolling papers, roach clips, pipes or other items used to smoke or store marijuana.
- Inappropriate laughter. When an individual is intoxicated from smoking marijuana, they will sometimes laugh uncontrollably, even at highly inappropriate moments.
- Legal or financial problems. Two concerns with drug users in general is a constant need for money and brushes with the law. Both are warning signs of marijuana use as well, as the individual spends all his money to finance the drug habit. Engagement with law enforcement is also a potential warning sign, as the individual will likely be transporting the illegal substance from place to place.
- Paranoia. One of the most serious consequences of marijuana use is paranoia. Watch for behavior that includes suspicious thoughts and feelings that "everyone is out to get" the individual in question.



Signs of Marijuana Use: Physical Change

Slide duration: 2 seconds

Signs of Marijuana Use: Physical Change:

- Bloodshot eyes
- Fast heart rate
- Sleepy, lethargic
- Lack of coordination
- Increase cravings for snacks

Used too much?

Slide duration: 2 seconds

The symptoms of using too much marijuana are similar to the typical effects of using marijuana, but more severe. These symptoms may include:

- Extreme confusion, anxiety, panic or paranoia
- Fast heart rate
- Hallucinations or delusions
- Increased blood pressure
- Severe nausea and vomiting



Increasing numbers of people are going to the emergency room after using marijuana, possibly because they used too much. This may happen because they:

- Thought a marijuana product was regular food.
- Used a product with more THC than they thought, either because they're using marijuana for the first time or trying a high-THC product.
- Consumed homemade edibles without a clear understanding of the THC content.
- Consumed more marijuana edibles than they needed since they didn't feel the effects right away. The effects of marijuana edibles may take up to four hours to peak after ingesting.

Effects of Marijuana Abuse

Slide duration: 2 seconds

In addition to positive and negative intoxicating effects, marijuana abuse can also have negative effects on an individual's physical and mental health, especially in someone who uses marijuana for a long period of time.

Long-term detrimental effects of marijuana may include:

- Respiratory problems: Marijuana smoke has many of the same irritating and lung-damaging properties as tobacco smoke. Long-term users may develop a chronic cough and are at higher risk of lung infections.
- Cardiovascular risk: Marijuana ingestion increases the heart rate for several hours, increasing the chance of heart attack or stroke. This may aggravate pre-existing heart conditions in long-term users and those who are older—placing them at greater risk of a cardiovascular event.



- Mental effects: Long-term marijuana use can decrease an individual's performance on memory-related tasks and cause a decrease in motivation and interest in everyday activities. Marijuana is also known to intensify symptoms in users with schizophrenia.
- Child development: Marijuana use during pregnancy can affect the development of the fetus's brain and has been linked to behavioral problems in babies.

- Psychological dependence: Like most other drugs of abuse, individuals who use marijuana for long periods of time can develop a dependence on it. Signs of dependence in a user include the need to use marijuana to cope with everyday tasks and the experience of cravings and anxiety when marijuana is not available.

Statistics on Marijuana Use

Slide duration: 2 seconds

Marijuana is the single most commonly used illicit drug in the US. Despite its popularity, however, national trends show that this drug is not harmless. Some important statistics about marijuana use include the following:

- Results from the National Survey on Drug Use and Health (NSDUH) indicate that in 2013, nearly 115 million Americans aged 12 or older had used marijuana at some point in their life, or about 44% of all people in this age group.
- Data collected by the Drug Abuse Warning Network (DAWN) show that between 2006 and 2010 there was a 59% increase in hospital emergency department visits that involved marijuana.
- The DAWN data also demonstrate that in 2010 marijuana was the second most common reason for drug-related emergency department visits after cocaine.
- Marijuana-related drug rehabilitation admissions increased by 14% between 2006 and 2010, reaching more than 350,000 in 2010, according to statistics released by the Drug Enforcement Administration (DEA).

Teens and Marijuana Use

Slide duration: 2 seconds

While state and federal governments debated the merits or dangers of medical marijuana, an increasing number of teens began to abuse the drug illicitly. From a low of 33% in 1992, usage by high school seniors increased to 49% by 2001 and fluctuated between 42% and 45% through 2011.

Perhaps one of the most significant statistics related to teens and marijuana use is the measurement of how much risk teens think is associated with regular use of marijuana. In 1991, 82% of tenth graders felt that this was a risky activity. This number declined steadily until it reached 55% in 2011. A decreasing perception of risk is normally followed by increasing usage statistics.

By 2009, the National Survey on Drug Use and Health showed that 3.3 million youth (ages 12-17) were using marijuana recreationally. More than 800,000 showed characteristics of dependence or addiction.

Not surprisingly, the next year, 80% to 90% of American high school seniors said that the drug was “very easy” or “fairly easy” to obtain.

Effects of Increasing Marijuana Abuse

Slide duration: 2 seconds

Despite the persistent arguments that marijuana is not addictive, this drug was responsible for 13% of treatment admissions in 1999. This number increased to 18% by 2009. This represents the number of people for whom marijuana was the primary or only drug they were using.

Here's some other facts about addiction treatment needs of young Americans in 2009:

- For both males and females, the peak age at admission to addiction treatment for marijuana was 15 to 17 years of age.
- Forty percent of marijuana addiction treatment admissions were under age 20.
- Seventy percent of all admissions for children 12 to 14 years of age were for marijuana.
- Seventy-two percent of all admissions for children 15 to 17 years of age were for marijuana.

Tests by the National Highway Traffic Safety Board found that marijuana use affected a driver's ability to concentrate on driving, think and react quickly to changing driving conditions. One study showed that a person who used marijuana within the three hours before driving doubled their risk of a traffic accident.

A study published in 2012 from King's College in London and Duke University found that those under 20 years of age who abused marijuana at least four days a week lost an average of eight IQ points and that these IQ points did not recover if they stopped using the drug. When individuals refrained from smoking marijuana until they turned twenty, they were not similarly affected.

When a person is thinking about using any drug - inhalant, prescription or illicit drug - it is vital to have an understanding about the effect on oneself and the larger influences that surround the drug. You are to be congratulated for finding out more about marijuana for your own sake and so you can help your friends.

Health Hazards of Marijuana

Slide duration: 2 seconds

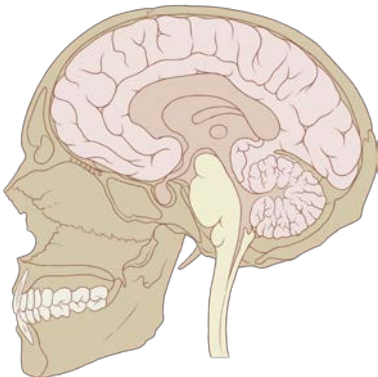
Marijuana contains known toxins and cancer-causing chemicals which are stored in fat cells for as long as several months. Marijuana users experience the same health problems as tobacco smokers, such as bronchitis, emphysema and bronchial asthma. Some of the effects of marijuana use also include: an increased heart rate, dryness of the mouth, reddening of the eyes, impaired motor skills and concentration, and frequent hunger and an increased desire for sweets. Extended use increases risk to the lungs and reproductive system, as well as suppression of the immune system. Occasionally hallucinations, fantasies and paranoia are reported.

Effects of Marijuana on the Brain

Slide duration: 2 seconds

Researchers have found that THC changes the way in which sensory information gets into and is acted on by the hippocampus. This is a component of the brain's limbic system that is crucial for learning, memory, and the integration of sensory experiences with emotions and motivations. Investigations have shown that neurons in the information processing system of the hippocampus and the activity of the nerve fibers are suppressed by THC. In addition, researchers have discovered that learned behaviors, which depend on the hippocampus, also deteriorate.

Recent research findings also indicate that long-term use of marijuana produces changes in the brain similar to those seen after long-term use of other major drugs of abuse.

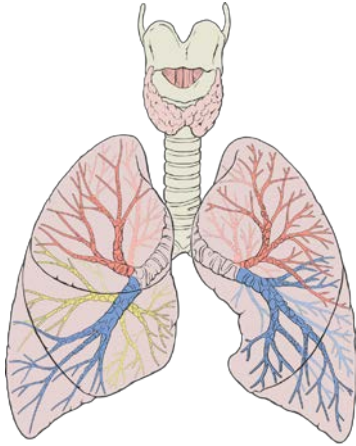


Effects of Marijuana on the Lungs

Slide duration: 2 seconds

Someone who smokes marijuana regularly may have many of the same respiratory problems that tobacco smokers have. These individuals may have daily cough and phlegm, symptoms of chronic bronchitis, and more frequent chest colds. Continuing to smoke marijuana can lead to abnormal functioning of lung tissue injured or destroyed by marijuana smoke.

Regardless of the THC content, the amount of tar inhaled by marijuana smokers and the level of carbon monoxide absorbed are three to five times greater than among tobacco smokers. This may be due to the marijuana users inhaling more deeply and holding the smoke in the lungs.



Effects on Heart Rate and Blood Pressure

Slide duration: 2 seconds

Recent findings indicate that smoking marijuana while using cocaine has the potential to cause severe increases in heart rate and blood pressure. In one study, experienced marijuana and cocaine users were given marijuana alone, cocaine alone, and then a combination of both. Each drug alone produced cardiovascular effects; when they were combined, the effects were greater and lasted longer. **The heart rate of the subjects in the study increased 29 beats per minute with marijuana alone** and 32 beats per minute with cocaine alone. When the drugs were given together, the heart rate increased by 49 beats per minute, and the increased rate persisted for a longer time. The drugs were given with the subjects sitting quietly. In normal circumstances, an individual may smoke marijuana and use cocaine and then do something physically stressful that may significantly increase risks of overload on the cardiovascular system.



Effects of Heavy Marijuana Use on Learning and Social Behavior

Slide duration: 2 seconds

A study of college students has shown that critical skills related to attention, memory, and learning are impaired among people who use marijuana heavily, even after discontinuing its use for at least 24 hours. Researchers compared 65 “heavy users,” who had smoked marijuana a median of 29 of the past 30 days, and 64 “light users,” who had smoked a median of one of the past 30 days. After a closely monitored 19- to 24-hour period of abstinence from marijuana and other illicit drugs and alcohol, the undergraduates were given several standard tests measuring aspects of attention, memory, and learning. Compared to the light users, heavy marijuana users made more errors and had more difficulty sustaining attention, shifting attention to meet the demands of changes in the environment, and in registering, processing, and using information. The findings suggest that the greater impairment among heavy users is likely due to an alteration of brain activity produced by marijuana.

Longitudinal research on marijuana use among young people below college age indicates those who used have lower achievement than the non-users, more acceptance of deviant behavior, more delinquent behavior and aggression, greater rebelliousness, poorer relationships with parents, and more associations with delinquent and drug-using friends.

Research also shows more anger and more regressive behavior (thumb sucking, temper tantrums) in toddlers whose parents use marijuana than among the toddlers of non-using parents.



Effects of Marijuana on Pregnancy

Slide duration: 2 seconds

Any drug of abuse can affect a mother's health during pregnancy, and this is a time when she should take special care of herself. Drugs of abuse may interfere with proper nutrition and rest, which can affect good functioning of the immune system. Some studies have found that babies born to mothers who used marijuana during pregnancy were smaller than those born to mothers who did not use the drug. In general, smaller babies are more likely to develop health problems.

A nursing mother who uses marijuana passes some of the THC to the baby in her breast milk. Research indicates that the use of marijuana by a mother during the first month of breast-feeding can impair the infant's motor development (control of muscle movement).



Addictive Potential of Marijuana

Slide duration: 2 seconds

A drug is addicting if it causes compulsive, often uncontrollable drug craving, seeking, and use, even in the face of negative health and social consequences. Marijuana meets this criterion. More than 120,000 people seek treatment per year for their primary marijuana addiction. In addition, animal studies suggest marijuana causes physical dependence, and some people report withdrawal symptoms.



Extent of Marijuana Use

Slide duration: 2 seconds

The NIDA-funded MTF provides an annual assessment of drug use among 12th, 10th, and 8th grade students and young adults nationwide. After decreasing for over a decade, marijuana use among students began to increase in the early 1990s. From 1996 to 1997, use of marijuana at least once (lifetime use) increased among 12th and 10th graders, continuing the trend seen in recent years. The seniors' rate of lifetime marijuana use is higher than any year since 1987, but all rates remain well below those seen in the late 1970s and early 1980s. Past year and past month marijuana use did not change significantly from 1996 to 1997 in any of the three grades, suggesting the sharp increases of recent years may be slowing. Daily marijuana use in the past month increased among 12th graders, but decreased among 8th graders; this pattern of increases among older students and stable or declining rates among younger students was found with several indicators in the 1997 MTF.



Marijuana Abuse Treatment

Slide duration: 2 seconds

The treatment for marijuana abuse and dependence has many similarities to treatments for addictions to other drugs. Although there are no medications available specifically for treating marijuana dependence, professional detoxification facilities can provide a safe, supportive place for abusers to get the drug out of their systems.

Medical staff can help ensure that individuals do not hurt themselves, and sedative medications are available in case of severe anxiety or panic attacks.

Following detox, inpatient and outpatient drug rehabilitation facilities are available depending on the specific needs of the recovering person. Both types of treatment offer counseling and education to help people with addictions to adapt to a drug-free lifestyle. Aftercare programs and peer recovery organizations provide support to avoid future relapses.

Teen Marijuana Abuse

Slide duration: 2 seconds

The Monitoring the Future survey has tracked drug use in secondary school students since 1975 and is a good source of information on teen marijuana abuse. Some key statistics from the survey include:

- The prevalence of marijuana use in the previous year among high school seniors has held fairly steady for the last few years and decreased slightly from 36.4% in 2013 to 35.1% in 2014.
- About 81% of 12th graders claim that marijuana is easily available if they wanted to get it.
- The perceived risk of marijuana use has fallen since 2000 in all age groups monitored, and less than 40% of 12th graders considered regular marijuana use to be a "great risk."

Also alarming is the rise of synthetic marijuana, often referred to as "Spice" or "K2." These substances can often be purchased legally and with ease; however, their effects can be severe and even fatal.



The Role of a Budtender

Slide duration: 2 seconds

- Strong Customer Service: Should be positive and welcoming
- Should be well educated with all medicinal products offered
- Strain knowledge is required, both in the effects and strain genetics
- Must be familiar with various methods of consumptions
- Educate members to ensure all patients are receiving the correct medication that will best help their illness and/or condition
- Ensure the cleanliness of the medicine stations
- Package, process, roll, trim cannabis



How to Trim Marijuana

Slide duration: 2 seconds

For a high-quality product, marijuana plants must be well cared-for and carefully harvested. Luckily, with the right technique, it's not terribly hard to trim your plant for great results. If you have multiple plants, take your time throughout this process - perform

each step on each of your plants individually before moving on to the next step. This potentially allows you to spread the trimming out over a period of weeks from pre-harvest to post-cure, breaking up what would otherwise be a tedious chore.



1. Remove dead leaves. As harvest time approaches, you'll want to begin reaching into the branches of the live plant and removing all of the dead and dying big fan leaves from the branches. This process allows the plant to focus as much energy as possible on making a great product, rather than wasting energy maintaining leaves that may die anyway. A gentle tug, sometimes firm, is all that's required to remove most leaves.
2. Cut each branch at the stock. At harvest time, after all the dead fan leaves have been removed, leave the plant in the earth if possible (if it's a hydroponic plant, obviously, you won't be able to do so) and use a pruning tool to cut each branch off where it meets the main stalk. Start with those nearest the ground and work upwards. If your plant is especially large, it may be necessary to use a pruning saw for the very big bottom branches, which are often the thickest.
3. Cut offshoots from the main branches. Having collected all of your branches, use your pruning tool to snip the smaller "side" branches from the big main branches at their base. If necessary, you may cut the large branches into smaller, more manageable pieces.
4. Remove the rest of the leaves. The remaining true leaves are now removed from all of the branches. There's no right way to do this - a firm tug on each leaf stalk might be one person's preferred method, while clipping might be another's. These leaves have little THC content and normally go to compost.
5. Hang the branches to cure. When the bud-bearing branches have been removed and partitioned into individual pieces, they must be cured. Hang the branches so that all parts are exposed to air and store them in a cool, dry place. You'll initially want heavy ventilation in the form of a fan or a draft to help dry the branches. As they dry, gradually decrease the ventilation to increase the moisture in the room, but never let the moisture exceed about 50%. The goal is for your branches to slowly, naturally dry, producing a flavorful, smoke-able product. This may take upwards of a week. Don't expose your harvested plants to direct sunlight, heat, or moisture. The latter is especially bad, as it can produce mold, which can ruin a crop.
6. Remove the leaves from the buds. When the marijuana is well cured, i.e., when the branches themselves are essentially dry, you can bend the small leaves that grow out of the buds off at their stems to snap them off. Though you probably won't want to smoke them, these leaves have a variety of uses for creating other cannabis products.
7. Remove and store the buds. Finally, your buds are all that remain on the branches. These you can snap off from their twigs and pack into ziploc or other air-tight storage.

How to Package Cannabis (for Dispensary employees)

Slide duration: 2 seconds

Proper cannabis labeling and packaging is a crucial component to staying in compliance with state guidelines. Cannabis companies must ensure that their packages are tamper-proof, child-proof, and within accordance of their local laws.

Unfortunately, because the laws are constantly changing, businesses are forced to keep up with the perpetual tweaks being made to remain in compliance and to protect the safety and security of the general public.



Safe Handling of Marijuana Items

Slide duration: 2 seconds

Recreational marijuana businesses are in many ways just like any other business, where workplace safety should be a top priority. As an employee it is important that you are aware of your workplace rules and regulations, and before you begin work you should familiarize yourself with your workplace safety protocols and procedures. If you have questions about your safety, or the safety of other employees, ask your employer or manager for additional instruction and training.

Below are some general pointers:

- Make sure before you start work you are aware of your employer's rules and operating procedures.
- Always maintain adequate personal cleanliness, such as washing your hands before starting work and frequently throughout the day, and anytime they are contaminated. Make sure your employer has provided sufficient clean restrooms, handwashing stations, and other sanitation equipment necessary for the type of work being performed and number of employees.
- If you have concerns about this raise it with your employer, or contact the local Bureau of Labor or Occupational Health and Safety Association (OSHA) for more guidance.
- If you are sick, have a communicable disease, or have an open wound or sore, do not handle marijuana items and let your employer or manager know right away.
- Make sure your working area is clean, safe and suitable for the type of work you are expected to perform. If you have concerns about the general sanitation or workplace safety, bring them to your employer's attention.

Lesson 3: How to Check for Proper Identification - Marijuana

Identification

Slide duration: 30 seconds

By the end of this section, you will be familiar with:

- Valid Forms of Identification
- Verifying that an ID is Valid
- Identifying Minors

- Behaviors that a Minor may Display
- Verifying a Person's Age by Birth Date
- Verifying a Genuine ID
- Characteristics of Genuine IDs
- Handling Fake IDs
- Correct Procedure for Checking IDs
- ID Checking Guide and ID Readers

Introduction to Identification (Dispensary Employees)

Slide duration: 2 seconds

It is crucial to learn about the proper forms of identification and how to check their authenticity. The legal age to purchase marijuana varies state-by-state. It is becoming increasingly difficult to discern a person's actual age. Therefore, it is a mistake to guess a person's age based solely on their appearance.

As a seller of marijuana, the responsibility for making sure that your customers are of legal age falls to you. You can be held criminally liable for selling to a minor and the establishment could lose their license.

Remember - You do have the right to refuse a sale to anyone who looks to be underage and who cannot furnish a valid ID.

Valid Forms of Identification

Slide duration: 15 seconds

Acceptable forms of ID can vary by state but generally include:

- State Driver's License
- State ID Card
- Military ID
- Passport

Acceptable forms of identification are determined at the state or city level of government.

Is the ID Valid?

Slide duration: 45 seconds

In order to accept an ID, you must confirm that the ID is an accepted form, is genuine, has not been issued to a minor and actually belongs to the customer.

Valid IDs should display the following:

Birth Date: This is used to determine the age of the person.

Current Expiration Date: If the ID has already expired, it is not valid. Sometimes minors try to use an expired ID of a friend or relative.

Signature: The signature can be useful in identifying the owner.

Photo: The photo helps to verify that its rightful owner is using the ID.

Physical Description: Compare features listed on the I.D. Height and eye color typically will not change.

Issued by a Government Agency: Federal, State, County or City

Is the ID Valid? Cont

Slide duration: 25 seconds

People with false IDs rarely carry backup documentation, whereas most people have several forms. When confronted with a possible false ID, ask for further documentation.

Examples of a second form of ID are:

- Credit Card
- Student ID
- Social Security Card
- Health Ins Card
- Passport
- Paycheck Stub
- Library Card
- etc...

Distinguishing the ID of a Minor

Slide duration: 45 seconds

States have adopted various means to assist you in identifying whether or not an ID belongs to a minor. Some of the most common methods are:

Color Designations: Title bars, bands and headers may be highlighted in a bold color such as red. The photo may be given a specific color backdrop, outline or border to indicate that it belongs to a minor. Also, the printed birth date may be highlighted.

Message in the Text: Many states include the actual phrase “under 21” or “under 21 until 2____” on the front of the ID.

Special Layout Features: The photo of a minor may be placed on the opposite side of the ID card. The format of the card may be printed vertically for a minor, rather than the standard horizontal format. Finally, there could also be a ghost photo or faint copy of the photo printed on the card for added security.

Behaviors that a Minor May Display (Dispensary Training)

Slide duration: 2 seconds

- They act nervous when offering their ID.
- They act nervous when ordering.

- They seem unsure or inexperienced when placing their order.
- They try to be as inconspicuous as possible.

Verifying A Person's Age By Birth Date

Slide duration: 30 seconds

Should you need to calculate someone's age by their birth date, a quick trick is to take the birth date, add twenty to it and then add one more.

The following example is for a person who was born on April 20, 1991:

First: Add 20 to the birth year $1991 + 20 = 2011$
Second: Add 1 to the total above $2011 + 1 = 2012$
Finally: Compare the total to the current calendar year
 2012 vs. 20__

The person is older than 21, if the year calculated is before the current year.

The person is a minor if the year calculated is after the current year.

If both years match, then you must look to see if the person's birthday has passed.

Verifying Genuine IDs

Slide duration: 20 seconds

Becoming completely familiar with the various acceptable IDs is vital. Recently, states have become more successful in developing IDs that are harder to duplicate or alter. That doesn't mean though that the counterfeiters have given up. They have just had to become more sophisticated in their efforts to produce IDs that look genuine. Spotting these fakes is becoming harder but there are several tools to assist you.

Characteristics of Genuine IDs

Slide duration: 45 seconds

Proper Text: The ID will display the correct font and word spacing and should never have words on them such as, official, authentic, genuine, valid, etc. To avoid criminal liability, counterfeiters sometimes use the incorrect text or icons.

Proper Images: Some states place holographic images on the IDs. These images are three-dimensional and can change color or shape when viewed from different angles. Other images could include such graphics as the state's name, seal or motto. Additionally, some states place objects on the ID that can only be seen with ultraviolet light. Becoming familiar with these images is the best way to make sure that they are genuine.

Characteristics of Genuine IDs Cont

Slide duration: 45 seconds

License Numbers: Every state issues a license number on the ID. These numbers may be the person's social security number, random numbers, a combination of random numbers and letters, or digits coded to the individual's personal information. What is important to check is that the correct number of digits is in place for that particular ID.

Photos: The photo should be clear and not blurry in any way. A photo that appears blurry may have been altered. A ghost photo, which is a smaller, fainter image of the photo, may also be used as an added security feature.

Back of the ID Card: The back of the ID card may have information such as, driving restrictions, organ donor information, or even bar codes or magnetic strips. It is important to become familiar with the format a particular state uses when identifying the cards. Many times the back of a fake ID will be blank or have wording similar to, "for entertainment only".

Verifying Who the ID Belongs To

Slide duration: 25 seconds

Many times, minors try to pass off a valid ID of a friend or relative as their own. Therefore, it is extremely important to make good observations when comparing the photo on the ID to the person standing before you.

Compare the general characteristics and make sure that the following match:

Gender, Weight, Eye Color, Height, Facial Features

Comparing the length or color of hair or even facial hair on men can be very tricky as these things are changed quite frequently.

Handling Fake IDs

Slide duration: 30 seconds

At some point in time, you are likely to have someone try to give you a fake ID. A policy should already be in place at your establishment for handling this situation. If one is not, then it is a good idea to discuss this with management so that you know what your options are.

Typically your course of action might be to refuse to allow the individual to enter, refuse to serve them and ask them to leave the premises.

Remember to follow the law in your jurisdiction as well as any policies set by management.

Counterfeit ID's - Where People Get Them

Slide duration: 20 seconds

Counterfeit ID are more common than you may imagine. Primarily, minors obtain these at the following:

- Friends and/or family
- Internet – many websites offer "Fake ID's" and "Novelty ID's" for purchase.
- Sites also offering templates for print at home fake ID's.

- ID counterfeiters – criminal counterfeiters are able to produce high quality ID's that may be difficult to detect.

Unacceptable IDs

Slide duration: 20 seconds

The following may not be acceptable proof of age:

- International drivers license/ID
- Voters Registration Cards
- Resident Alien Cards
- Library Cards
- Birth Certificate
- Gun Permits
- Hunting License
- National ID's
- Social Security Cards
- Welfare Cards
- Personal ID Cards
- Check Cashing Cards
- Selective Service Cards

The Steps for Checking IDs

Slide duration: 45 seconds

Even when rushed, it is important to properly and thoroughly check the ID of each person that you card.

The following procedures should help with this process:

Step 1- Greet the Customer: Use the name printed on the card when greeting the customer. Look for signs of nervousness that could indicate they may be trying to use a fake ID or someone else's ID. Identifying their name may help to discourage the person from giving the card to someone else to use later while it may also help you to remember later on that you have already checked this ID.

Step 2 - Ask for the Card: This step is important for it allows you to detect if the card may have been altered in any way. Look and feel for any bubbles, areas of thickness and ink signatures.

Step 3 - Confirmation: Verify that the ID is genuine, is valid, belongs to the person presenting it and that it does not belong to a minor.

Once this process has been followed the decision can then be made as to whether or not to allow the individual into the establishment and to serve them.

The Steps for Checking IDs Cont.

Slide duration: 45 seconds

If after this process you are still unsure you can ask if the person has an additional form of identification with them. You may even ask for their signature for comparison to their ID. At this time it may also help to ask questions about the information printed on the ID.

Such questions could include:

- What is your height?
- What is your address?
- When were you born?
- What is your full name?
- What year did you graduate high school?
- What is your astrological sign?

Remember that you do have the legal right to refuse service to anyone that you believe to be a minor. When you do decide not to serve someone, it is best to remain polite and courteous when asking that individual to leave. You may also want to inform whoever is currently in charge at your establishment.

What to Look Out For on a Possible Fake ID

Slide duration: 35 seconds

- Glue lines or surfaces that are bumpy; especially near the picture or birth date. Areas that are inconsistent with the rest of the ID may indicate tampering.
- Reprinted numbers with a shadowy or cloudy image behind them – the card may have been open to change the numbers.
- Missing features found on a real DL or ID when compared to the examples in the ID Checking guide.
- Missing security features such as microprint or images seen with an ultraviolet light.

Feel and bend the card – does it feel like it is made of the same materials used for real IDs?

Mistakes Made When Checking Identification

Slide duration: 30 seconds

- Incorrectly guessing that a person is of age and not carding them when in fact they were a minor.
- These days minors look much older and it is becoming harder to determine a persons age just by looking at them.
- Not noticing that an ID has expired
- An expired ID is not valid.
- Forgetting to actually look at the person standing before you and comparing them to the picture on the ID

Never let a customer or patron pressure or rush you so that you are not able to properly check the ID.

ID Checking Guide

Slide duration: 25 seconds

The I.D. Checking Guide provides full-color examples of driver's licenses from all U.S. states.

Some ID Checking Guides also provide examples of international ID's and federal documents such as passports, military I.D. cards, and immigration documents.



Electronic ID Readers

Slide duration: 45 seconds

An ID reader is a device that reads the information from the bar code or magnetic strip that is usually found on the back of an ID. When using one of these devices, be sure to check that the machine's display matches the information printed on the card itself. Sometimes, these strips are altered or taken from another ID.

Many establishments use an ID reader for: age verification, ID checking, and State compliance (where required) for the sales of alcohol and tobacco.

The ID reader can help in spotting fake driver licenses and ID's. Most ID readers will read the majority of USA States & Canadian cards with a readable magnetic stripe.

You should not rely solely on the information presented by an ID reader. These devices can be quite helpful but you still must follow the proper procedures for checking IDs.

Ex: <http://www.idscanner.com>

Denying Service or Entry for Underage Persons

Slide duration: 25 seconds

Should you face a situation where a person is underage or you believe the identification that they are presenting may be a fake ID, remain polite and refuse service and/or entry. Never be rude to the customer. Simply state that you are not able to allow entry and/or provide service. Should an issue arise or the customer become confrontational, get a manager and explain the situation. In the case that the customer becomes violent, call the police immediately.

Intervention Techniques

Slide duration: 2 seconds

Intervention is a responsible sales technique that promotes responsible sales and helps keep the community safe. Intervention is a plan of action that includes things such as asking people for ID or refusing to sell when a customer shows signs of visible intoxication. It is easier to plan and practice actions you will take, and what you will say, before you have to actually deal with that situation at work.

There are many intervention techniques and systems to evaluate customers. Each business may have their own techniques and systems depending on their business model, but the following guidelines could be helpful in developing successful intervention practices.

1. Smile, make eye contact with your customers, and take time checking ID.
2. Chat with customers before selling marijuana to them to determine if they are intoxicated.
3. Know and watch for the 50 likely signs of visible intoxication and combinations of these signs.
4. When you refuse to sell to a customer, tell your manager and co-workers.
5. When appropriate, have a co-worker with you when you have to refuse service.
6. Make it clear you are in control without being overbearing and scaring off customers.
7. Use peer pressure if possible by asking for support from the customer's friends.
8. Offer alternative transportation to keep intoxicated customers from driving.
9. If an intoxicated customer insists on driving threaten to call the police and identify the driver and the vehicle.
10. Follow through on your threat if the intoxicated customer drives away.

Keep two principles in mind in choosing your words:

1. Avoid "you" statements that sound accusatory or judgmental ("You're drunk," "You're stoned," "You already seem high on something"). These statements are more likely to offend and provoke the customer.
2. Use "I" statements instead, that put the focus on you and why you're refusing to sell ("I could get in trouble with the law and lose my worker permit or our business could lose its license," "Legally, I'm not allowed to sell you any marijuana products", "I have to follow the law", "My job would be at risk", "I can't.")

Professional Intervention Attitudes

Slide duration: 2 seconds

Many sales professionals use these guidelines when refusing sales:

- Be courteous and concerned. People are more cooperative when they feel they are being respected and helped, rather than being put down. You might try a statement such as, "I want to see that you get home safely."
- Be confident. Confidence convinces people you are doing the right thing. Act confident even if you don't feel especially confident -- no one will know the difference!
- Be tactful. Never accuse a customer of being intoxicated. State simply that you cannot sell them any marijuana and suggest they come back another time.
- Be discreet. Make every effort not to embarrass the customer in front of friends or business associates. If possible, speak to the person privately.
- Be firm. Do not allow the impaired customer to talk you out of the rational decision you have made. Use a phrase that gets the message across and stops an argument in its tracks like, "I'm sorry I can't sell you any marijuana -- it's against the law."

Three reminders for dealing with difficult customers are:

- Remain calm. It helps to remember that the customer is the one with impaired judgment, not you.
- Get help. Tell the manager or other sellers. Sometimes even the hostile customer's friends can help diffuse the situation. Occasionally you may even need to call the police.

- Avoid a fight. Fights are bad for business and could result in other penalties or liability.

SUMMARY (Identification - Dispensary Training)

Slide duration: 2 seconds

One of your primary responsibilities as a seller of marijuana is to ensure that your customers are of legal age. Failing to do so could result in criminal liability. Always remember that you do have the right to refuse to serve someone who you believe to be a minor.

It is extremely important to become as familiar as possible with the various IDs that are commonly presented in your establishment. If you are not familiar with one, there are tools to assist you such as the ID Checking Guide or the ID Reader. Always follow the proper procedures for checking an ID to ensure that you have made a “good faith effort” in not serving a minor.

Lesson 4: Alaska Laws and Regulations Overview

INDUSTRY RULES AND REGULATIONS (AK)

Slide duration: 0 seconds

There are several rules, regulations, and areas of knowledge you need to work in the industry. We will cover each of these separately:

- Terminology
- Effects of Consumption
- Facility Rules and Regulations
- Identifying a Person Impaired by the Consumption of Marijuana
- Determining Valid Identification
- Preventing Unlawful Consumption
- Enforcement

Terminology (AK)

Slide duration: 2 seconds

First, here is a list of terms that are used in the marijuana industry that may be helpful:

- **Batch:** A specific quantity of marijuana from the same strain, cultivation conditions, and harvested at the same time. Maximum size: 50 plants.
- **Bud / Flower:** The parts of the female marijuana plants used for smoking. They may be hairy, sticky, different-colored, or covered in crystals.

- **Cannabinoids:** Cannabinoids (e.g., THC and CBD) are the chemical compounds secreted by cannabis flowers.
- **Concentrate:** Substances produced by extracting cannabinoids from a marijuana plant. Can take the form of resin, oil, wax, or others.
- **Consumer:** A person who purchases or uses marijuana or marijuana-based products.
- **Edible:** A marijuana-based product intended for oral consumption.
- **Infused Product:** A product that contains either marijuana or a marijuana-based concentrate.
- **Licensed Premises:** A premises where an establishment license has been issued; the building, structure, or grounds.
- **Marijuana tracking system:** A system that is able to share with the state a record of all marijuana that is cultivated and sold.
- **Packaging:** Packaging must be opaque, can be sealed after opening, and child-proof.
- **POS system:** Point-of-Sale system, the electronic system used for ringing up orders and making sales to customers

Effects of Consumption (AK)

Slide duration: 2 seconds

A marijuana plant contains more than 500 chemicals. There are two major chemicals that are often discussed when it comes to marijuana: THC and CBD.

THC delta-9-tetrahydrocannabinol (THC) acts on specific brain cell receptors. These receptors ordinarily react to THC-like chemicals that occur naturally in the brain and they play a role in normal brain development and function.

Cannabidiol (CBD) may not affect the mind, mental state, or behavior like THC does, although some users have reported negative effects of high CBD/low THC strains and products. CBDs are typically used to reduce pain and inflammation, control seizures, and possibly even treat mental illness and addictions.

Marijuana also contains over 100 compounds that are related to THC, called cannabinoids. Side effects vary, depending on the quality, strength, strain, and balance of marijuana used. Marijuana also affects brain development, especially as it pertains to young people. For example, there was a study that showed that people who started smoking marijuana heavily in their teens and used in an ongoing manner lost an average of eight IQ points between the ages of 18 and 35. Individuals who started smoking as adults did not show noticeable IQ declines.

There are two main ways of using marijuana – inhaling and ingesting. When a person inhales marijuana, the THC passes from the lungs to the bloodstream. The blood then carries the chemicals to the brain and other organs. When a person ingests marijuana, the body absorbs the THC more slowly, which means that the person generally feels the effects between 30-60 minutes after ingestion.

Consumption of marijuana can cause the following effects:

- Impaired coordination
- Difficulty in problem solving
- Anxiety and paranoia
- Short-term memory loss
- Hunger, commonly referred to as “the munchies”
- Sleepiness
- Altered senses
- Altered sense of time
- Mood changes
- Impaired body movement
- Difficulty with thinking or recall

There are ways to identify a person impaired by consumption of marijuana:

- Bloodshot eyes

- Fast heart rate
- Sleepy/lethargic
- Lack of coordination
- Forgetfulness
- Paranoia
- Confusion, or a lack of focus
- Unusually quiet or talkative (compared to how the person normally acts)
- Dropping usual activities or habits
- Misjudging time
- Secretiveness

There are negative consequences to marijuana use, and there is new research coming out every day. Some warnings about marijuana use include the following:

- Marijuana use can be addictive
- Marijuana use is unsafe if you are operating a vehicle
- Marijuana use is linked to lower grades in school
- Marijuana use is linked to some mental illnesses

Facility Rules and Regulations (AK)

Slide duration: 2 seconds

The most important thing for working in the marijuana industry: everyone involved needs a handler permit card. This includes owners, dispensary employees, grow house employees, agents of the facility, budtenders, trimmers, janitors, security, and everyone else involved with the growing, sale, manufacturing, or testing of marijuana. Once you have your permit card, you can work on learning the rules and regulations of the industry.

When someone wants to open a marijuana facility, they must file an application on forms from the Marijuana Control Board. There is a non-refundable application fee for a new establishment license, or to transfer a license to a new person, which is set at \$1000. The Board must approve any license renewals, transfers, or relocations. Facilities cannot be licensed if the premises will be located within 500 feet of a school, a recreation or youth center, a building where religious services are regularly conducted, or a correctional facility. All facility owners must be residents of the State of Alaska.

There are four types of licensing that facilities can have in the industry:

(1) Cultivation, (2) Manufacturing, (3) Testing, and (4) Retail. These are regulated by the Marijuana Control Board.

All marijuana establishments share some basic requirements:

- Any changes or alterations to the licensed premise must be approved by the board
- Areas where marijuana is grown, processed, tested, stored, or stocked is considered a restricted access area (all visitors and staff must be over 21 years of age, all visitors must be escorted by an employee, agent, or owner, and there cannot be more than 5 visitors at a time)
- Security alarm systems and commercial locks are required, in addition to lighting around the exterior to help with surveillance. There must be security alarm systems on all windows and exterior doors.
- Video surveillance is required on the outside and inside of the facility; facilities must keep 40 days of continuous surveillance
- The Marijuana Control Board can conduct an inspection of licensed establishments at any time
- Safety, code, and fire standards are required to be met, and adhered to
- From seed to sale, all marijuana products must be tracked through a Marijuana Inventory Tracking System
- The facility must keep accurate and timely business records, which must be available upon request of the board in a timely manner

- Standardized scales are required in the facility
- It is required to label all marijuana and marijuana products
- Employees must know and follow individual facility sanitary practices, including use of protective hand coverings
- Only licensed establishments are allowed to transport marijuana in any amount that exceeds the personal limit
- Waste disposal plans must conform to local, state, and federal statutes, ordinances, regulations, or other laws

Retail Marijuana Stores

Slide duration: 2 seconds

Retail marijuana stores are required to verify that all consumers are at least 21 years of age. A licensed store may not sell, give, distribute, deliver, or offer to sell, give, distribute, or deliver, to anyone under the age of 21. The entry to all stores must have a sign that states “No one under 21 years of age allowed”. The sign must be no less than 12 inches long and 12 inches wide, with letters at least one half inch in height in high contrast to the background of the sign.

Consumers are limited to a maximum purchase amount of 1 ounce per day. The facility must reconcile all transactions from the POS system and inventory to its marijuana inventory tracking system at the close of each business day. If there is any variance in product quantity or product sold, received, transferred, or disposed of, the facility must account for that variance. Retail stores are not permitted to conduct business or allow customers to access the store’s premises between 5:00 AM and 8:00 AM.

CULTIVATION (AK)

Slide duration: 2 seconds

There are two types of licenses available for cultivation: Standard and Limited. Limited licenses must not be more than 500sq.ft. of plant canopy space; it is permitted to be located inside someone’s home.

For a cultivation facility of either type, there are several rules laid out in statute that dictate how the facility needs to be managed. First, all applicable local and statewide health and safety codes must be followed. Marijuana cannot be seen or smelled by the public from outside the facility. In addition, no one may consume any marijuana products within 20ft. of the exterior of any of the buildings, structures, or outdoor cultivation facility of the licensed premises.

As it pertains to products, marijuana products from cultivation facilities are only permitted to be sold to a manufacturing or retail facility. The Marijuana Control Board will prescribe a tracking system that must be used for tracking seed-to-sale of all marijuana products. Before sale of any products, approved batch testing is required. Finally, all cultivation facilities must use certified scales that are in compliance with two laws – AS 45.75.080 and 3 AAC 306.745.

MANUFACTURING & TESTING (AK)

Slide duration: 2 seconds

MANUFACTURING

Manufacturing facilities must comply with all health, safety, and fire codes. All facilities and buildings must be approved by an engineer and all staff should have sufficient knowledge of operating manufacturing equipment. Any manufacturing facility may not have an ownership interest in, or a direct or indirect financial interest in any licensed marijuana testing facility. Similar to cultivation facilities, manufacturing facilities may only sell marijuana products to a retail facility. The facility must pay excise taxes monthly and submit appropriate business records as requested, and they must also show verification to the purchaser.

When manufacturing marijuana products, the Marijuana Control Board must approve all products prior to sale. The products cannot resemble a widely distributed food brands or be an existing food product that was altered in any way. The products must not require controlled temperatures (that would keep it safe for human consumption) and all product batches must be tested

prior to sale. Finally, there are limits set for potential of edible products: these limits are set at 5mg per active THC serving, with 10 servings per package.

For products, cultivation facilities sometimes provide samples of products to retail stores. A cultivation facility may not provide any individual licenses retail marijuana store or manufacturing facility with more than one ounce of marijuana per month free, for the purposes of negotiating a sale. That product must be returned or destroyed. Marijuana cannot be smelled or seen from outside the facility by the public. In addition, no one may consume any marijuana products within 20ft. of the exterior of any of the buildings, structures, or outdoor cultivation facility of the licensed premises.

TESTING

Testing facilities are permitted to test marijuana and marijuana products for quality, strength, and compliance.

Determining Valid Identification (AK)

Slide duration: 2 seconds

A marijuana handler is legally responsible for verifying identification before selling marijuana products. To determine if an ID is valid, you want to carefully check the following:

- The age of the consumer
- The expiration date of the license
- The photo (compare to the consumer to make sure they are the same)
- ID hologram (not for all IDs, but common for a driver's license)

A valid identification includes any of the following documents:

- An unexpired, unaltered passport
- An unexpired, unaltered driver's license, instruction permit, or state ID card from any state in the United States or a province of Canada
- Any other kind of ID card issued by a federal or state agency that is authorized to issue driver's licenses or ID cards

The four things most commonly tampered with on a fraudulent ID are:

- Picture
- Birth date
- Weight
- Height

If you suspect that the ID is not valid, you should request to see another form of ID. If someone presents you with an expired ID card, it could be borrowed from someone else. If the consumer looks young and is acting nervous, that is a red flag for a potential false ID. You can refuse to sell products to someone if you believe the ID is not valid, or if the consumer is unable to purchase for any other reason.

There are some specific tips for the State of Alaska driver's license:

- There is a transparent image in the lower right corner of the ID, be sure to check for that
- If the edges of the ID are rough, that is a red flag
- There are holographic snowflakes on the card
- There are barcodes on the back of the new license
- USA is written on the upper right-hand corner

Preventing Unlawful Consumption (AK)

Slide duration: 2 seconds

By working in the marijuana industry, it is your responsibility to help prevent unlawful consumption. It is important to not allow anyone to enter the premises without checking their identification and ensuring it is valid. You must ensure that consumers are at least 21 years of age and that there is no consumption on the premises.

Remember, your first defense against unlawful consumption is to know what a valid form of identification looks like.

Enforcement (AK)

Slide duration: 2 seconds

Any facility or individual that violates or does not comply with rules and regulations is subject to suspension or revocation of an establishment license or criminal charges. In addition to have a license revoked for violations, owners could also have products seized, fined up to \$50,000, or receive a summary judgment where a business license could be suspended.

All employees, agents, or owners of a marijuana facility must cooperate with any employee of the Marijuana Control Board, directors, enforcement agents, or peace officers. They must cooperate by permitting entry and inspection of the premises or providing access to business records.

There are consequences for anyone who violates the laws and regulations pertaining to marijuana use, growth, production, sale, or distribution. Anyone who violates the provision detailing the maximum amount of marijuana allowed and is found guilty could be fined up to \$750.00. If a marijuana handler accepts a false identification and is found guilty, they could be fined up to \$400.00. A person who uses marijuana in public can be fined up to \$100. In addition, any local government (city, county, etc.) can establish their own ordinances and regulations that govern the time, place, and manner of a marijuana establishment.

MEDICAL MARIJUANA (AK)

Slide duration: 2 seconds

There are two sides to the industry: medical marijuana and recreational marijuana. Each comes with its own rules and regulations, so it's important to understand both.

In this section, we will be focusing on medical marijuana. Medical marijuana is allowed under a specific law: AS 17.37. This law allows sale and possession of medical marijuana with the following provisions. We will cover each of these separately:

- Medical Marijuana Cards
- Medical Marijuana Registry
- Selling to a Customer

Medical Marijuana Cards (AK)

Slide duration: 2 seconds

Medical marijuana cardholders have obtained their card by getting a physician's statement that a patient suffers from a debilitating medical condition that may benefit from medical marijuana. Medical marijuana patients have to surrender their card if the medical condition ends or ceases to exist.

Consumers must be 21 years of age and the medical marijuana card must be renewed annually. Be sure to check the expiration date on all medical marijuana cards. Patients may not apply for a card more than once every six months.

Medical Marijuana Registry (AK)

Slide duration: 2 seconds

The medical marijuana registry includes the name of the primary and alternate caregiver of the patient. Only certain employees are able to access this list. Peace Officers and authorized employees of the state or municipal law enforcement agencies have access to the registry. The registry consists of patients who have applied for and hold a registry identification card.

Selling to a Consumer (AK)

Slide duration: 2 seconds

Consumers must have a state-issued medical marijuana card in order to purchase any products. A medical card is not valid if the card has been altered, laminated, cut, or mutilated in any way that makes it illegible. Photocopies of any kind are not valid.

Medical marijuana consumers may purchase and possess up to 1 ounce of marijuana and 6 plants (no more than 3 of those plants flowering/producing). Retail marijuana stores must affix a label to each package or product sold that identifies the store selling the product by name, distinctive logo, or establishment license number.

Finally, just because someone has a medical marijuana card, the law does not make accommodations for the use of marijuana. That means that a cardholder who purchases marijuana still does not have a right to use in public spaces, at work, in correctional facilities, facilities managed by the Department of Administration, within 500 feet of school grounds, at or within 500 feet of a recreation or youth center, or on a school bus.

RECREATIONAL MARIJUANA (AK)

Slide duration: 2 seconds

There are two sides to the industry: medical marijuana and recreational marijuana. Each comes with its own rules and regulations, so it's important to understand both.

In this section, we will be focusing on recreational marijuana. Recreational marijuana is allowed under a specific law: AS 17.38. This law allows sale and possession of recreational marijuana with the following provisions. We will cover each of these separately:

- Recreational Marijuana: Law and Background
- Recreational Marijuana Control Board
- Taxation
- Selling to a Customer

Recreational Marijuana: Law and Background (AK)

Slide duration: 2 seconds

Recreational marijuana is allowed under a specific law: AS 17.38. This law was passed on 11/04/2014 and in it, voters found that the use of marijuana should be legal for persons 21 years of age or older.

The law states three major provisions for recreational use:

1. Consumers must show proof of age (21 or over) before purchasing marijuana
2. Marijuana sales will be conducted by legitimate, taxpaying individuals and not by those engaging in criminal acts
3. Marijuana will be sold by regulated businesses and it will be labeled and subject to additional regulations that will make sure consumers are safe, informed, and protected

The law also states several rules and provisions for using recreational marijuana. They include the following:

- 1 ounce of marijuana or less is the maximum allowed for transfer
- Possess, grow, process, or transport no more than 6 marijuana plants (only 3 or fewer can be flowering, mature plants that are producing)
- Marijuana and any marijuana products cannot be displayed in a way that is visible to the general public from the public right-of-way
- Regardless of if a consumer is using medical or recreational marijuana, it is not allowed to use any marijuana products in public.

Recreational Marijuana Control Board (AK)

Slide duration: 2 seconds

The State of Alaska is responsible for overseeing and managing the Marijuana Control Board. The governor appoints a director and five board members who serve staggered three-year terms. The Board controls everything responsible for marijuana in the state including sales, manufacturing, cultivation, and development. The Board has authority to conduct inspections of any licensed facility or their books and records.

Taxation (AK)

Slide duration: 2 seconds

Under the law, all facilities pay a \$50 per ounce, or proportionate part thereof, excise tax on marijuana that is sold or transferred from a cultivation facility to a retail store or product manufacturing facility. If facilities are delinquent in their payments or fail to pay state tax, they can be subjected to civil penalties or revocation of their facility registration.

Selling to a Consumer (AK)

Slide duration: 2 seconds

Recreational marijuana consumers must show valid identification, proving that they are at least 21 years of age. Recreational marijuana consumers may purchase and possess up to 1 ounce of marijuana, or 6 plants at a time. Retail marijuana stores must

affix a label to each package or product sold that identifies the store selling the product by name, distinctive logo, or establishment license number.

Lesson 5: AS 17.37: Medical Uses of Marijuana

- Registry of Patients and Listing of Caregivers
- Privileged Medical Use of Marijuana
- Restrictions On Medical Use of Marijuana
- Addition of Debilitating Medical Conditions
- AS 17.37.070. Definitions

Lesson 6: AS 17.38 Regulation of Marijuana in Alaska

- Sec. 17.38.010 Purpose and Findings
- Sec. 17.38.020 Personal Use of Marijuana
- Sec. 17.38.030 Restrictions on Personal Cultivation
- Sec. 17.38.040 Public Consumption Banned
- Sec. 17.38.050 False Identification
- Sec. 17.38.060 Marijuana Accessories Authorized
- Sec. 17.38.070 Lawful Operation of Marijuana-Related Facilities
- Sec. 17.38.080 Marijuana Control Board
- Sec. 17.38.090 Rulemaking
- Sec. 17.38.100 Marijuana Establishment Registrations
- Sec. 17.38.110 Local Control
- Employers, Driving, Minors, and Control of Property
- Sec. 17.38.130 Impact on Medical Marijuana Law
- Sec. 17.38.900 Definitions

Lesson 7: Alaska Alcohol Chapter 306 Regulation of Marijuana

- Chapter 306 Article 1 Licensing; Fees
- Chapter 306 Article 2 Local Options
- Chapter 306 Article 3 Retail Marijuana Stores

- Chapter 306 Article 4 Marijuana Cultivation Facilities
- Chapter 306 Article 5 Marijuana Product Manufacturing Facilities
- Chapter 306 Article 6 Marijuana Testing Facilities
- Chapter 306 Article 7 Operating Requirements for All Marijuana Establishments
- Chapter 306 Article 8 Enforcement; Civil Penalties

Final Exam

Quiz Name

Alaska Marijuana Handlers Final Exam

Number of questions

20

Number of attempts

2

Questions

Valid IDs must display the following:

Which is not a Hybrid Marijuana category?

Generally, the acceptable forms of identification are:

What is not a method of ingesting marijuana?

In order to accept an ID as being valid, you must confirm that:

How long may a person experience the short-term Effects of Marijuana?

This state uses the following methods to identify the ID of a minor:

What are some of the signs of marijuana use?

Genuine IDs display the following characteristics:

What are some of the signs that someone has used too much marijuana?

A ghost photo is:

What are some of the reasons people accidentally take too much marijuana?

Which of the following would not be an indication of a fake ID?

For occasional marijuana users, how many milligrams of THC will likely cause impairment?

Which of the following questions is/are suggested for verifying an ID?

How long should someone wait after consuming up to 35 mg TCH before driving or biking?

Which of the following IDs would not be an acceptable proof of age?

Marijuana is addictive. True or false?
