CANNABIS

HANDBOOK

Contents

1. Introduction

How to use this training pack

This pack is intended to be used as a learning tool and also for reference after the training course has been completed. It is not intended for use in isolation to the training course.

Not all the material provided in this pack will be relevant to all services. Much will depend on what services they are offering and the context within which they are provided. The tier structure in which the agency is working and the stage of the user themselves will greatly dictate the material that will be most relevant.

Agencies / individuals will also need to take into account the regional differences in patterns of use within their catchment area, type of service being offered and target group

2. Cannabis Timeline

8000 - 7000 B.C.: The earliest known fabric is woven from hemp.

2700 B.C.: The first written record of cannabis use is made in the pharmacopoeia of Shen Nung.

550 B.C.: The Persian prophet Zoroaster writes the Zend-Avesta, a sacred text which lists more than 10,000 medicinal plants. Hemp is at the top of the list.

First Century A.D.: The Chinese begin making paper from hemp and mulberry.

1150: Moslems use cannabis to start Europe's first paper mill.

1484: Pope Innocent VIII labels cannabis as an unholy sacrament and issues a papal ban on cannabis medicines.

1563: Queen Elizabeth I orders land owners with 60 acres or more to grow cannabis or face a £5 fine.

1564: King Philip of Spain orders cannabis to be grown throughout his empire, from Argentina to Oregon.

1619: Jamestown Colony, Virginia, enacts the New World's first marijuana legislation, ordering all farmers to grow Indian hemp seed.

June 28, 1776: The first draft of the Declaration of Independence is written on Dutch hemp paper.

1868: Egypt outlaws cannabis ingestion. This nation will later lobby for marijuana criminalization in the League of Nations.

1883: Hashish smoking parlors are open for business in every major American city. According to police estimates, in 1883 there are 500 such parlors in New York City alone.

1890: Queen Victoria's personal physician, Sir Russell Reynolds, prescribes cannabis for menstrual cramps.

1895: The Indian Hemp Drug Commission concludes that cannabis has no addictive properties, some medical uses, and a number of positive emotional and social benefits.

1910: The white minority in South Africa outlaws cannabis ingestion.

1914: Congress passes the Harrison Narcotics Act, its first attempt to control recreational use of drugs.

1936 - 1938: William Randolph Hearst's newspaper empire fuels a tabloid journalism propaganda campaign against marijuana. Hearst papers run articles about marijuana-crazed negroes raping white women and playing voodoo-satanic jazz music.

December 1937: The Marijuana Tax Act is signed into law, initiating 60 years of cannabis prohibition and annihilating a multi-billion dollar industry.

1937 - 1939: Under Harry Anslinger, the Federal Bureau of Narcotics prosecutes 3,000 doctors for illegally prescribing cannabis-derived medications. In 1939, the American Medical Association reached an agreement with Anslinger, and over the following decade, only three doctors are prosecuted.

1943 - 1948: Harry Anslinger orders all Federal Bureau of Narcotics agents to conduct surveillance and keep files on marijuana crimes by jazz and swing musicians.

1962: President John F. Kennedy forces Harry Anslinger into retirement after Anslinger attempts to censor the work of Professor Alfred Lindsmith, author of The Addict and the Law.

1964: Dr. Raphael Mechoulam of the University of Tel Aviv isolates THC Delta-9, the primary active ingredient in cannabis.

1967: Keith Richards and Mick Jagger are busted for marijuana possession.

1973: Oregon takes the first steps towards decriminalization of cannabis.

1974: Dr. Heath conducts his infamous government-funded Rhesus monkey study at Tulane University, touted for years as evidence that marijuana causes brain damage.

1976: The Ford Administration bans independent research and research by federal health programs on the use of natural cannabis derivatives for medicine.

1989: St. Louis Medical University determines that the human brain has receptor sites for THC to which no other known compounds will bind.

December 30, 1989: Drug Enforcement Agency Director John Lawn orders that cannabis remain on the Schedule One narcotics list, reserved for drugs which have no known medical use.

Jan 2004: Cannabis reclassified to a Class C drug in the UK

2018–2024 –Cannabis remains the most commonly used illicit drug in England and Wales, with Crime Survey data showing that around 6–8% of adults aged 16–59 report last-year use, and roughly double that proportion among 16–24-year-olds. Some earlier estimates suggested 6–9 million lifetime users in the UK; more recent survey data translate to around 2.3–2.9 million past-year users in England and Wales alone, indicating stable but slightly declining prevalence among younger adults compared with 10 years ago.

2018–2024 – UK medical cannabis rollout and access issues
Despite the 2018 legal change, NHS prescribing of unlicensed CBPMs remains extremely limited, with only a small number of NHS patients (often quoted in the low single digits to low double digits) receiving such prescriptions, mainly for rare, treatment-resistant epilepsies. Access instead grows primarily via private clinics, and by 2024 the UK is estimated to have over 300,000 active private medical cannabis patients, making it one of the largest medical cannabis markets in Europe by patient count and projected value.

From 2019 onwards, over-the-counter CBD products proliferate in the UK, but they remain regulated as novel foods, and THC and other controlled cannabinoids above very low “trace” limits are still controlled under the Misuse of Drugs Act. In October 2023, the government responds to ACMD advice on THC trace limits in consumer CBD products, indicating that a threshold around 50 micrograms of THC per “unit of consumption” will be used to distinguish allowable trace levels, with full implementation and authorisations expected from 2024–2025.

2024–2025 – further UK regulatory tweaks (hemp and medical)
In February 2025, the UK government confirms it will raise the permitted THC content in industrial hemp in the field from 0.2% to 0.3%, aligning with EU rules and some other ju-

risdictions but maintaining strict controls on flowers and leaves, which remain controlled drugs regardless of THC level. The medical cannabis sector continues to press for wider NHS access and clearer prescribing guidance, with parliamentary groups and patient organisations highlighting that millions of people could potentially benefit from CBPMs if access barriers are reduced.

2024 – Germany legalises limited recreational cannabis in 2024, allowing home-growing and non-profit cannabis clubs under a federal “pillar” model, while postponing full commercial retail sales. Worldwide, a growing list of countries and sub-national jurisdictions have legalised or decriminalised cannabis for medical and/or adult-use purposes, including Mexico (Supreme Court-driven adult-use legalisation in principle), Luxembourg (home-grow), Thailand (legalisation then partial re-tightening), and others, reflecting a clear trend away from blanket prohibition.

For the year ending March 2025, 6.5% of adults aged 16–59 and 12.5% of those aged 16–24 in England and Wales report using cannabis in the last 12 months, confirming cannabis as the UK’s dominant illicit drug but with slightly lower use among younger adults than a decade earlier. Treatment data for 2023–2024 show cannabis as the most common primary drug among children and young people in specialist substance use services, accounting for around 80–90% of young people’s treatment presentations.

3. Types of cannabis

Cannabis or hemp are a product of the plant Cannabis sativa , indica and ruderalis. It is consumed in different forms and goes by various names such as grass, weed, marijuana or ganja in its herbal form and ‘hashish’, ‘solid’ or ‘soap bar’ in its resinous form. Cannabis can also come as an oil and is now used in medicine as a spray (Sativex) and other applications such as supposotries and patches are being explored.

Though the main psychoactive chemical compound in cannabis is THC, the plant is known to contain about sixty or so cannabinoids. One other cannabinoid of particularly high concentration in some plants is cannabidiol (CBD), which is not psychoactive but has recently been shown to block the effect or control the onset and duration of THC in the nervous system. Differences in the chemical composition of cannabis varieties may produce different effects in humans.

Narrow-leafed "sativa" drug strains are native to the Indian subcontinent, and are also cultivated in Africa, South and Central America, the Caribbean Basin, and in other marijuana producing regions.

These strains are usually tall, laxly branched, and relatively late-maturing. They have largely been replaced by so-called "indica/sativa" hybrids by commercial cannabis growers because the hybrids yield a larger crop in a shorter period of time.

The herbal form of the drug consists of dried mature inflorescences (‘buds’) and under todays technology and breeding techniques the potency of the buds have doubled in the past decade (‘skunk’ a blanket term for a variety of cannabis grown under lights is now leveling out at 15% THC in the UK)

The THC content is also affected by the sex of the plant, with female plants generating substantially more resin than their male counterparts. Seedless varieties derived from unpollinated female plants have high THC content and are traditionally known as sinsemilla (Spanish: "without seed").

Wide-leafed "indica" drug strains are traditionally cultivated in northwest India, Afghanistan, and Pakistan for the production of hashish, and may have originated in the Hindu-Kush or Tian Shan mountain range.

Due to the often harsh and variable climate of those regions, these strains are better suited for cultivation in temperate climates. Plants of this type are relatively short, conical, and densely branched, having characteristcally wide leaflets, and tend to

produce a lower ratio of THC to CBD than the narrow-leafed drug strains

Although many commercially available varieties are

genetically fixed to produce relatively high levels of THC and low levels of CBD (which is not psychoactive), some users report more of a body "stoned" and less of a head "high" effect from these varieties compared to the narrow-leafed strains. Differences in the content of the essential oil may account for some of these differences.

It has been reported that commercial hashish is often no more potent than high quality seedless marijuana. However, carefully produced and screened hashish is up to three times as potent as the highest quality herbal varieties.

The range of potencies (measured as THC content by dry weight) found in seized hashish has varied from 3% to 8%.

Most commonly available ‘commercial’ cannabis contains 3-6% THC. Selective breeding and modern cultivation techniques like hydroponics have produced varieties between 15 and 24% THC (2007).

Adulterated Cannabis

Contaminants are found in street cannabis; low-quality hashish such as soap bar has a reputation for being full of contaminants (some psychoactive, some not) which serve to increase the bulk of the street product. Recently, there have been reports of herbal cannabis being adulterated with minute silica crystals in the UK and Ireland. These crystals resemble THC in appearance, yet are much heavier, and so serve again to increase the weight, and hence value, of the cannabis on the street.

Cannabis has many other uses other than recreational:

- Cannabis is cultivated for its fiber
- Cultivated for seed from which hemp oil is extracted.
- Grown for medicinal purposes

4. Routes of use

Smoking

There are a wide variety of methods and apparatus for smoking cannabis. The most popular include the joint, the bong, the pipe, the chillum, Also, another method are "hot knifes". This method of smoking is thought to have orginated in New Zealand, and is generally regarded as a "mint hit".

Smoking cannabis results in a significant loss of THC and other cannabinoids in the exhaled smoke, by decomposition on burning, and in smoke that is not inhaled. In contrast, all of the active constituents enter the body when cannabis is ingested. It has been shown that the primary active component of cannabis THC, is converted to the more psychoactive 11-hydroxy-THC by the liver.

Eating

As an alternative to smoking, cannabis may be consumed orally. Although hashish is sometimes eaten raw or mixed with water, THC and other cannabinoids are more efficiently absorbed into the bloodstream when dissolved in ethanol, or combined with butter.

The effects of cannabis administered this way has a longer on-set, but last longer. An oral dose of cannabis is often considered to give a more intense experience than the equivalent dose of smoked cannabis. Some people report unpleasant experiences after ingesting cannabis, because they experience a more intense effect than they are comfortable with.

A common method of preparation involves blending cannabis material with butter to create "cannabutter", which is used in preparing foods such as brownies, fudge, cookies, and "space cakes".

Cannabis can also be consumed as a tea. Although THC is only slightly water soluble enough THC can be dissolved to make a mildly psychoactive tea. However, water-based infusions are generally considered to be an inefficient use of the herb.

Cannabis seeds which are not psychoactive, are high in protein and essential fatty acids, and are readily consumed by many species of birds. They are also consumed by humans.

Vaporization

A vaporizer heats herbal cannabis to 365–410 °F (185–210 °C), which turns the active ingredients into gas without burning the plant material. The effects from a vaporizer are noticeably different to that of smoking cannabis. Users have reported a more euphoric hallucinogen type high which is due to the more pure amount of THC being taken in.

"Munchies"

The "Munchies" is a term that is often used to describe the increased appetite that comes from using Cannabis.

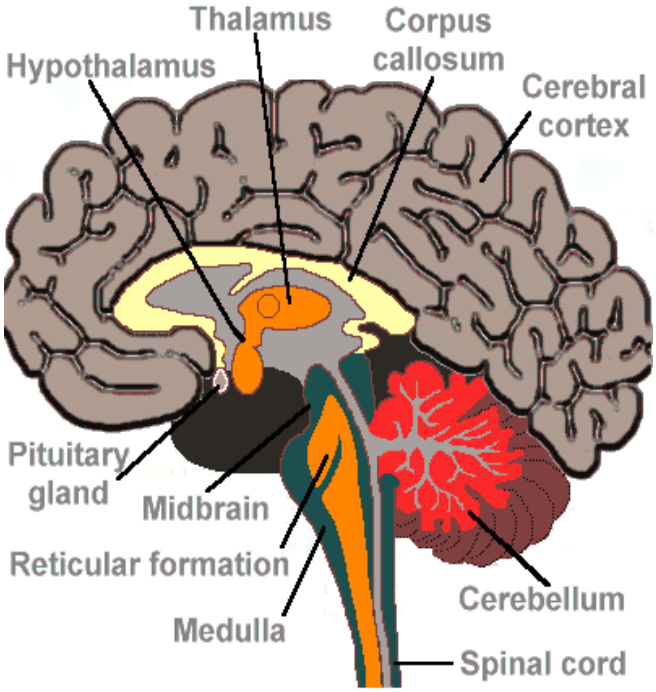
Toxicity

There have been no reported deaths or permanent injuries sustained as a result of cannabis overdose (2007).

5. How Cannabis works

The effects of any drug vary from one person to the next. It depends on many factors including a persons size, weight and health, how the drug is administered, how much of it is actually taken, whether the individual is used to taking it, the person's frame of mind at that time and whether other drugs have been used in combination. The effects also depend on the environment in which the drug is used or whether the person is by themselves or with others.

Tetrahydrocannabinol (delta-9-tetrahydrocannabinol),, also known as THC, is the main psychoactive substance found in the Cannabis plant.. It was isolated by Raphael Mechoulam and Yechiel Gaoni from the Weizmann Institute in Rehovot, Israel in 1964.



THC acts on "cannabinoid" receptors which are found on neurons in many places in the brain. These brain areas are involved in memory (the hippocampus), concentration (cerebral cortex), perception (sensory portions of the cerebral cortex) and movement (the cerebellum). When THC activates cannabinoid receptors, it interferes with the normal functioning of these brain areas.

THC has psychoactive and physiological effects when consumed, usually by smoking or ingestion. Physical effects may include a dry mouth, dry and bloodshot eyes, puffy eyelids, and increased heart rate. Psychological effects include relaxation, euphoria, altered time perception, and alteration of visual, auditory, and olfactory senses. Cannabis does not seem to cause any major chronic effects. Short-term side effects of cannabis use include short-term memory loss, anxiety, and irritation.

There is no cannabis withdrawal disorder in the DSM-IV, but studies have demonstrated that cannabis use can induce mild withdrawal symptoms.

Scientists have known for a long time that THC interacted with cannabinoid receptors in the brain, but did not know why the brain would have such receptors. They thought that the brain must make some kind of substance that naturally acted on these receptors. In 1992, they discovered anandamide. Anandamide is the brain's own THC (just like "endorphin" is the brain's own morphine). Still, scientists are not sure what the function of anandamide is in the normal brain but there is currently much research in this area.

The high

The effects of cannabis start as soon as 1-10 minutes after it is taken and can last 3 to 4 hours or even longer. The stronger varieties ‘skunk’ can come on quicker. The high from cannabis is not always clear cut and predictable, unlike stimulants for instance, however there are some salient common features.

Highs vary from:

- A feeling of euphoria
- Intense relaxation (some users claim to become more tired)
- Reduced Stress
- Reduced Anger
- Most experience pleasure, but one out of five users experience a great deal of anxiety.
- Decrease in nausea (used medicinally for treatment of nausea)
- Laughter, sometimes uncontrollable
- Sensory enhancement (colours, taste, sensation)
- Increased appreciation of music
- Playful thought process
- Extremely fast thought processes (used by artists and writers for creativity)
- Closed-eye visuals
- Distorted perception

Side effects MAY include:

- Forgetfulness (only for the duration of the high)
- Laziness (only for the duration of the high)
- Trouble with concentration (some users may experience enhanced concentration)
- Paranoia
- Increased heart rate
- Dry mouth and throat
- Increased appetite (munchies)
- May hallucinate (rare)
- Short term functional memory loss

6. Health implications

Although there are many conflicting studies involving health issues and the effects of cannabis, certain physical and mental health effects conclusions have been reached. Today, there is still a substantial amount of propaganda and misinformation from both cannabis advocates and opponents due to the legal issues of cannabis, including legal and political constraints on cannabis research.

The most obvious confounding factor in cannabis research is the prevalent usage of other recreational drugs, including alcohol and tobacco. Such complications demonstrate the need for studies on cannabis that have stronger controls, and investigations into the symptoms of cannabis use that may also be caused by tobacco.

On 23 May 2006, Donald Tashkin, M.D., Professor of Medicine at the David Geffen School of Medicine at UCLA in Los Angeles announced that the use of Marijuana does not appear to increase the risk of developing lung cancer, or increase the risk of head and neck cancers, such as cancer of the tongue, mouth, throat, or esophagus. On the other hand a 2002 report by the British Lung Foundation estimated that three to four cannabis cigarettes a day were associated with the same amount of damage to the lungs as 20 or more tobacco cigarettes a day. According to a United Kingdom government report, using cannabis is less dangerous than tobacco, prescription drugs, and alcohol in social harms, physical harm and addiction.

Research between the use of cannabis and mental illness has also brought significant results. Cannabis use is generally higher among sufferers of schizophrenia, but the causality between the two has not been established. Another study concluded that sustained early-adolescent cannabis use among genetically predisposed individuals has been associated with a variety of mental illness outcomes, ranging from psychotic episodes to clinical schizophrenia.

Medical Cannabis

A number of studies indicate that THC may provide medical benefits for cancer and AIDS patients by increasing appetite and decreasing nausea. It has been shown to assist some glaucoma patients by reducing pressure within the eye, and is used in the form of cannabis by a number of multiple sclerosis patients to relieve the spasms associated with their condition.

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The information in this pack is taken from a variety of different sources and written from a drug workers point of view. It is not meant to be a definitive document and COCA and the author would advise that information be constantly checked as it can become out of date very quickly.

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