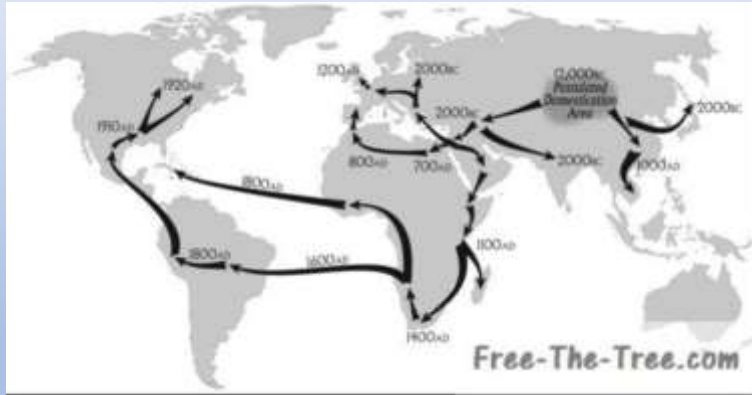


# Cannabis Cultivation in the Ancient World (China)



This diagram may be a simplification of the origins of cannabis domestication. Fossil pollen studies may be a better indication of where and when hemp cultivation originated.

Cannabis Plant, Hemp Plants and Marijuana plants used Interchangeably.

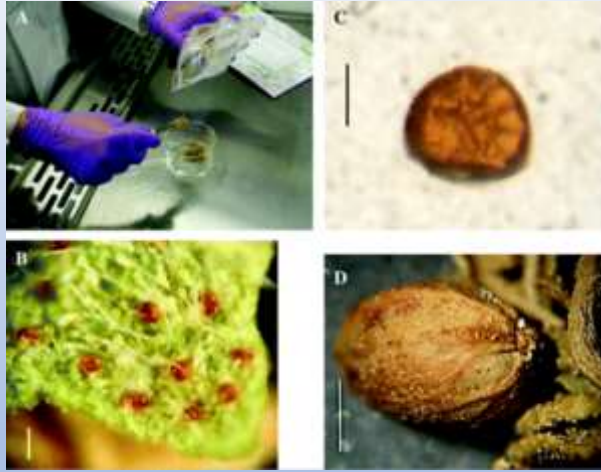
<https://friendlyaussiebuds.com/cannabis-resources/education/blazes-throughout-the-ages-episode-i-getting-stoned-in-the-stone-age/>



Cannabis plants were arranged across the body of a middle-aged man before his burial in Turpan, China, around 2,500 years ago.

PHOTOGRAPH COURTESY HONGEN JIANG

**Approximately 2500 year old cannabis from The Yanghai Tombs  
in the Turpan Basin (Xinjiang Autonomous Region) of northwest China**



Approximately 1.7 lbs. of cannabis (A) was found to have characteristic marijuana trichomes (B and C) and a characteristic seed (D). This cannabis contained THC and was presumably employed by this culture as a medicinal or psychoactive agent, or an aid to divination (religious ritual).

*Ethan Russo et al. Journal of Experimental Botany, Volume 59, Issue 15, 1 November 2008, Pages 4171–4182*

## Archeological Excavations

Yangshao hemp-cordmarked Amphora, Banpo Phase  
4800 BCE, Shaanxi. Photographed at the [Musee Guimet](#)

An amphora is used for storage, usually of liquids



# Discovery of Ancient Cannabis cloth

Hemp Shoe from China ~ 100CE



This hemp shoe dating from around 100CE is one of thousands of hemp artefacts from ancient China that have been discovered in modern times (British Museum)

First hemp-weaved fabric in the World found wrapped around baby in 9,000-year-old house in Turkey



The hemp-weaved fabric found in Çatalhöyük. Photo Credit

**The Steppe**, belt of [grassland](#) that extends some 5,000 miles (8,000 kilometres) from [Hungary](#) in the west through [Ukraine](#) and Central Asia to [Manchuria](#) in the east. Mountain ranges interrupt the steppe, dividing it into distinct segments; but horsemen could cross such barriers easily, so that steppe peoples could and did interact across the entire breadth of the Eurasian grassland throughout most of recorded history.



Extent of the Eurasian steppes.  
Encyclopædia Britannica, Inc.

**The Scythians** – the Greeks' name for this initially nomadic people – inhabited Scythia from at least the 11th century BC to the 2nd century AD. In the seventh century BC, the Scythians controlled large swaths of territory throughout Eurasia, from the Black Sea across Siberia to the borders of China.

**Herodotus**<sup>[a]</sup> (484 BC – 425 BC) was an ancient Greek historian. He wrote that the Scythians (7<sup>th</sup> century B.C.) used marijuana in their burial ceremonies. “Next, the men crawled into the tents and dumped marijuana seeds onto the hot stones. The seeds soon began to smolder and throw off vapors, which in the words of Herodotus, caused the Scythians to howl with joy”. Burial sites from the 5<sup>th</sup> century BC between Siberia and Mongolia the embalmed body of a man and a bronze cauldron filled with burnt marijuana seeds!” Clearing the site further, Rudenko also found some shirts woven from hemp fiber and some metal censors designed for inhaling marijuana smoke which did not appear to be connected with any religious rite. To Rudenko, the evidence suggested that inhalation of smoldering marijuana seeds occurred not only in a religious context, but also as an everyday activity, one in which Scythian women participated alongside the men.

The First “Stoners”?



FIGURE 2.6 An interpretation of the early domestication of *C. sativa* in accord with the “camp-follower” and “dump-heap” hypotheses of crop origin. Small, Ernest. *Cannabis: A Complete Guide* (p. 29). CRC Press. Kindle Edition.



## Historically the Marijuana Plant was Holy to the Hindu



Parvati Offering Lord Shiva  
His Favorite Bhang Drink  
(The Serpent Gets to It  
First), Hindu Water Color  
Painting on Paper Artist:  
Kailash Raj, Contemporary

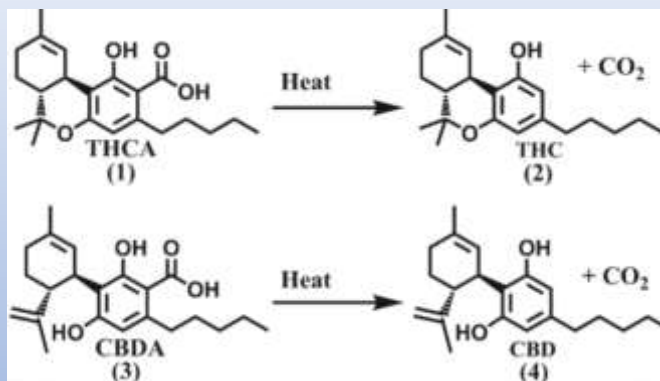
- The earliest allusion to bhang's mind-altering influence is contained in the fourth book of the Vedas, the Atharvaveda ("Science of Charms"). Written some time between 2000 and 1400 B.C. where it calls bhang one of the "five kingdoms of herbs ... which **release us from anxiety.**
- By the tenth century A.D., for example, it was just beginning to be extolled as indracanna, the "food of the gods."
- By the sixteenth century A.D., it found its way into India's popular literature. The Dhurtasamagama, or "Rogue's Congress," a light farce written to amuse audiences, has two beggars come before an unscrupulous judge asking for a decision on a quarrel concerning a maiden at the bazaar. Before he will render his decision, however, the judge demands payment for his arbitration. In response to this demand, one of the beggars offers some bhang. The judge readily accepts and, tasting it, declares that "**it produces a healthy appetite, sharpens the wits, and acts as an aphrodisiac.**"
- The 1961 international treaty [Single Convention on Narcotic Drugs](#) classed cannabis with hard drugs but excluded bhang.

## Grinding Up Marijuana Leaves for the Bhang Drink (Modern Way)



Have to use boiling water to decarboxylate THCA to THC!

## The Conversion of THCA and CBDA to THC and CBD

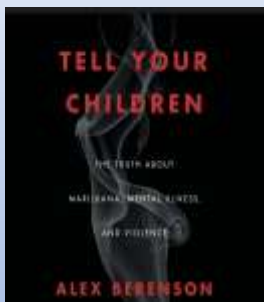


CO<sub>2</sub> is released upon heating.

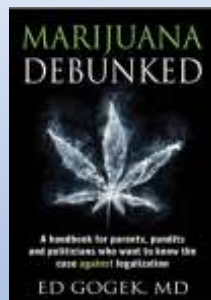
## Summary of Indian Hemp Drug Commission, 1894 (Ernest Abel)

- Conclusions. The commission concluded: (1) Moderate use of cannabis drugs had no appreciable physical effects on the body. As with all drugs, excessive use could weaken the body and render it more susceptible to diseases. Such circumstances were not peculiar to cannabis, however.
- (2) Moderate use of cannabis drugs had no adverse effects on the brain, except possibly for individuals predisposed to act abnormally. Excessive use, on the other hand, could lead to mental instability and ultimately to insanity in individuals predisposed by heredity to mental disorders. Although in certain rare cases cannabis intoxication could result in violence, such cases were few and far between.
- Although charas and ganja were potentially harmful if taken in excess, the commission felt that suppression of these drugs was also unadvisable. As to the tax issue, the commission felt that the government's policy of trying to restrict the use of cannabis through taxation was the best plan possible: "In the opinion of the Commission, the general principle may be fearlessly asserted that it is right to tax intoxicants; and the higher they are taxed the better.

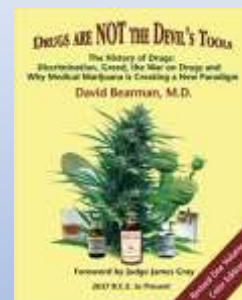
## Books on Both Sides of the Debate



2019

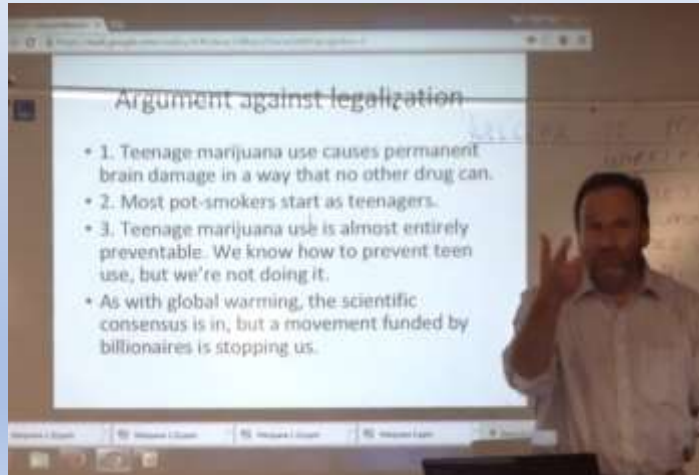


2015



2017

## Dr. Gogek on YouTube



## Legalization Pro

- Marijuana legalization boosts the economy.
- The enforcement of marijuana prohibition is racist because people of color are disproportionately impacted.
- Crime goes down when marijuana is legalized.
- Legal marijuana is regulated for consumer safety.
- Legalizing marijuana would end the costly enforcement of marijuana laws and free up police resources.
- Marijuana is less harmful than alcohol and tobacco, which are already legal and may result in a decline in opiate abuse.
- A majority of Americans support legalizing marijuana.
- Proper clinical studies may be undertaken if the Federal government remove cannabis from Schedule 1.
- Taxes collected from the legal sale of marijuana support important public programs.
- Marijuana is more readily available for medicinal use.

## Legalization Con

- Legalized marijuana creates steep costs for society and taxpayers that far outweigh its tax revenues.
- Legalizing marijuana leads to more marijuana-related medical emergencies.
- Legalizing marijuana increases use by teens, with harmful results in the developing brain.
- The black market and organized crime benefit from marijuana legalization.
- Commercialized marijuana will create a "Big Marijuana" industry that exploits people for profit and targets children.
- Legalizing marijuana is opposed by major public health organizations including the American Academy of Pediatrics.
- Legalizing marijuana hurts businesses by causing preventable accidents and lost productivity.
- Cannabis use may increase the risk of developing schizophrenia, depression, and other psychiatric disorders.
- Maybe a much better medicine available than cannabinoids.

Some of these arguments are from ProCon.org.

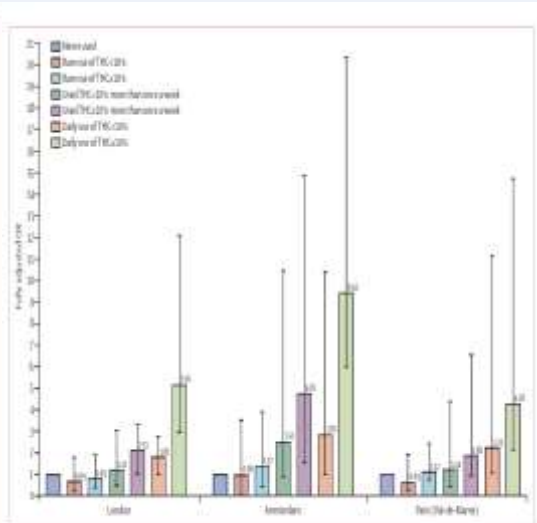
**Association of Cannabis Use in Adolescence and Risk of Depression, Anxiety, and Suicidality in Young Adulthood: A Systematic Review and Meta-analysis, JAMA Psychiatry | Original Investigation, 2019 American Medical Association**

Gabriella Gobbi, MD, PhD; Tobias Atkin, BA; Tomasz Zytynski, MD; Shouao Wang, MSc; Sorayya Askari, PhD; Jill Boruff, MLIS; Mark Ware, MD, MSc; Naomi Marmorstein, PhD; Andrea Cipriani, MD, PhD; Nandini Dendukuri, PhD; Nancy Mayo, PhD

- STUDY SELECTION Longitudinal and prospective studies, assessing cannabis use in adolescents younger than 18 years (at least 1 assessment point) and then ascertaining development of depression in young adulthood (age 18 to 32 years) were selected, and odds ratios (OR) adjusted for the presence of baseline depression and/or anxiety and/or suicidality were extracted.
- After screening 3142 articles, 269 articles were selected for full-text review, 35 were selected for further review, and 11 studies comprising 23 317 individuals were included in the quantitative analysis.
- The OR (Odds Ratio) of developing depression for cannabis users in young adulthood compared with nonusers was 1.37 (95% CI, 1.16-1.62; I2 = 0%).
- The pooled OR for anxiety was not statistically significant: 1.18 (95% CI, 0.84-1.67; I2 = 42%).
- The pooled OR for suicidal ideation was 1.50 (95% CI, 1.11-2.03; I2 = 0%), and for suicidal attempt was 3.46 (95% CI, 1.53-7.84, I2 = 61.3%).
- These data indicate that cannabis use during adolescence is associated with a moderately increased risk of depression in young adulthood.
- CONCLUSIONS AND RELEVANCE: Although individual-level risk remains moderate to low and results from this study should be confirmed in future adequately powered prospective studies, the high prevalence of adolescents consuming cannabis generates a large number of young people who could develop depression and suicidality attributable to cannabis. This is an important public health problem and concern, which should be properly addressed by health care policy.

**The contribution of cannabis use to variation in the incidence of psychotic disorder across Europe (EU-GEI): a multicentre case-control study.** Lancet Psychiatry. 2019 May;6(5):427-436. doi: 10.1016/S2215-0366(19)30048-3. Epub 2019 Mar 19.

	Fully adjusted OR (95% CI)	Prevalence of exposure in controls	Prevalence of exposure in cases	FAF (95% CI)
<b>High-potency cannabis (THC &gt;10%)</b>				
Whole sample	1.0 (1.0-1.0)	18.1%	35.1%	12.7% (1.0-15.1)*
London (UK)	2.4 (1.4-4.0)	16.0%	51.5%	30.9% (15.3-49.8)*
Cambridge (UK)	1.3 (1.4-4.3)	11.0%	34.7%	8.7% (9.5-18.7)
Amsterdam (Netherlands)	3.0 (2.5-3.7)	5.4%	69.6%	50.5% (27.4-66.0)*
Genoa and Verona (Italy)	1.5 (1.8-3.1)	18.3%	38.6%	37.3% (17.2-51.1)*
Paris (Île de France, France)	1.1 (1.0-1.0)	21.0%	29.9%	18.9% (14.4-26.0)*
Psych. Dist. (Spain)	1.5 (1.4-1.6)	1.7%	7.1%	3.3% (1.6-7.3)
Madrid (Spain)	3.0 (1.7-5.3)	15.3%	34.0%	17.4% (9.9-25.0)*
Barcelona (Spain)	1.6 (1.5-1.7)	7.8%	23.7%	4.7% (3.5-7.4)
Bologna (Italy)	1.2 (1.0-1.4)	8.3%	31.4%	1.9% (1.6-45.3)
Florence (Italy)	0.6 (1.0-2.0)	5.3%	4.3%	Not calculated
Brazilian Porto (Brazil)	3.1 (1.0-11.3)	1.6%	34.6%	1.9% (1.3-4.1)
<b>Daily cannabis use</b>				
Whole sample	2.2 (2.2-4.1)	6.8%	29.0%	20.4% (17.6-23.8)*
London (UK)	3.6 (2.4-4.4)	21.7%	29.0%	21.0% (11.4-31.2)*
Cambridge (UK)	3.2 (1.1-8.5)	4.6%	39.2%	10.4% (4.7-21.8)*
Amsterdam (Netherlands)	7.1 (5.8-12.9)	12.1%	51.4%	43.8% (34.0-54.2)*
Genoa and Verona (Italy)	1.8 (1.4-2.3)	6.0%	27.4%	37.4% (13.1-11.1)*
Paris (Île de France, France)	1.1 (1.2-1.2)	11.4%	32.3%	20.8% (12.5-35.8)*
Psych. Dist. (Spain)	1.1 (1.4-1.2)	6.0%	11.0%	1.7% (1.8-25.4)
Madrid (Spain)	3.5 (2.1-7.3)	10.3%	31.2%	12.7% (5.7-24.7)*
Barcelona (Spain)	1.8 (1.8-8.7)	8.1%	18.0%	8.6% (1.6-50.0)
Bologna (Italy)	3.0 (1.5-5.8)	4.2%	37.3%	8.1% (1.8-11.1)*
Florence (Italy)	1.2 (1.7-1.7)	5.3%	37.1%	4.2% (1.9-11.1)
Brazilian Porto (Brazil)	2.4 (1.5-7.5)	7.4%	25.0%	14.5% (11.0-24.1)*



OR=Odds Ratio

Figure 2. Fully adjusted ORs of psychotic disorders for the categorical measure of frequency phenotype of cannabis use in three sites. Data are shown for the five sites with the greatest consumption of cannabis: London (321 cases, 231 controls), Amsterdam (36 cases, 103 controls), and Porto (34 cases, 100 controls). Error bars represent 95% CI. OR=Odds ratio.

Participants who used high-potency cannabis daily had four-times higher odds of psychosis in the whole sample, with a five-times increase in London and a nine-times increase in Amsterdam



## INFORMATION FOR HEALTH CARE PROFESSIONALS

**Cannabis (marihuana, marijuana) and the cannabinoids. Dried or fresh plant and oil administration by ingestion or other means Psychoactive agent.**

**Prepared by Health Canada**

**Date of latest version: Spring 2018**

A number of studies have investigated the influence of potential genetic factors in the development of psychosis and schizophrenia, and more specifically as a function of interaction with cannabis use. Some studies have focused on the role of genetic polymorphisms at the COMT gene 1116-1123, and others have focused on polymorphisms at the AKT1 gene 1124-1127. Taken together, the data from these studies strongly suggest that single-nucleotide polymorphisms at either the COMT or AKT1 genes interact with cannabis use to predict the age at onset, as well as the likelihood of developing psychosis or schizophrenia in vulnerable individuals. More recently, evidence has also emerged implicating polymorphisms at the CNR1, neuregulin 1 (NRG1) as well as the DAT1 gene and the BDNF gene and THC/cannabis use with onset of psychotomimetic effects as well as earlier age of onset of schizophrenia 1085, 1128-1130. Please consult Section 7.7.3.2 for additional information on the adverse psychiatric effects associated with the use of cannabis and psychoactive cannabinoids (such as THC), and the role of genetic predisposition on the risk of developing a psychotic disorder.

The findings presented above and in sections 7.7.3 and 7.7.3.2 suggest that cannabis use, especially THC predominant cannabis, as well as exposure to Δ9-THC alone, would not be beneficial, and in fact would actually be harmful to those who may be suffering from psychotic disorders, or who may have a genetic predisposition or family history of psychosis or schizophrenia. In contrast, emerging evidence suggests CBD may protect against the psychosis-inducing effects of THC.

## Chinese History Medicinal Properties of Cannabis

- A famous physician Hua T'o (117-207 A.D.), was using a concoction of Cannabis called *ma-fei-san* (hemp-boiling compound) taken with wine, to anesthetize his patients in order to perform operations on abdominal organs and it was employed as an analgesic for surgery.
- *Pen-ts'ao Ching* states that "ma-fen (fruits of hemp) . . . if taken in excess will produce hallucinations (literally "seeing devils"). If taken over a long term, it makes one communicate with spirits and lightens one's body."
- Another legendary emperor, Fu His (ca, 2900 B.C.) divided everything into female (yin) and male (yang) that had to be in balance.
- Cultivated female plant (yin) since it contained more of the medicinal properties for use in (menstrual fatigue), gout, rheumatism, malaria, beri-beri, constipation and absentmindedness. (from Ernest Abel book)

## “The Therapeutic Use of Cannabis sativa (L.) in Arabic Medicine” by Indalecio Lozano PhD, Journal of Cannabis Therapeutics, Volume 1, 2001

- The therapeutic uses of the plant in Arabic medicine from the 8th to the 18th century is reviewed in this paper. Arab physicians knew and used its diuretic, anti-emetic, anti-epileptic, anti-inflammatory, painkilling and antipyretic properties, among others.
- Also used for sleep: Among many other written records, hashish is also mentioned in “*Thousand and One Nights*” or “*Arabian nights*” (11th&12th centuries), where King Omar used it to cause sleepiness to Princess Abrizah.

## Cannabis in Ancient Egypt


- The Ebers Papyrus (c. 1550 BC) from Ancient Egypt describes medical cannabis. The ancient Egyptians used hemp (cannabis) in suppositories for relieving the pain of hemorrhoids ( Pain, Stephanie 15 December 2007). "The Pharaoh's pharmacists". New Scientist
- The egyptologist Lise Manniche notes the reference to "plant medical cannabis" in several Egyptian texts, one of which dates back to the eighteenth century BCE, (Lise Manniche, *An Ancient Egyptian Herbal*, University of Texas Press, 1989, ISBN 978-0-292-70415-2).

## Evidence of Cannabis Beit Shemest AD315 and AD392.

- An archaeological dig at Beit Shemesh (19 miles west of Jerusalem) yielded evidence that hashish was used for medicinal purposes in antiquity and cast light on obstetrical practices. The girl measured only 4-feet 7-inches tall. The remains of a 9-month-old fetus were found in her womb. The corpse was found with those of 40 other people in what was a family tomb.
- “Presumably, the hashish was burned so she could inhale it to ease the pain,” Mechoulam said. “They then placed the burnt material on her abdomen. I presume they thought this would help.”


## Marijuana (The Drug) in the West (France) Blame it on Napoleon

- When Napoleon invaded Egypt in 1798, there was no alcohol available to his soldiers so they turned to local hashish. Soon after the army's return, the French began hearing about the incredible effects of hashish from both the soldiers who had used it themselves and from the country's scientists who had had an opportunity to study the drug and its mystique while serving with the army in Egypt.
- “Along with the soldiers, three French scientists—Silvestre de Sacy, Rouyer, and Desgenettes--whom Napoleon had brought with him to study the country and its people, also began using hashish, ostensibly to see for themselves what this drug did to the human body. Intrigued by their experiences with hashish, they sent some back to France for their colleagues to conduct further experiments in their laboratories.”
- By the 1830's youths at the Port of Marseilles were using Egyptian hashish.



University of  
**Strathclyde**  
Humanities &  
Social Sciences

Cannabis and British Medicine



WB O'Shaughnessy, Professor of Chemistry and Medicine  
in the Medical College of Calcutta, Government Chemical  
Examiner, Knighted in 1856 (4000 miles of telegraph line)

"Powerful and valuable remedy in hydrophobia, tetanus,  
cholera and many convulsive disorders"

The Bengal Pharmacopoeia and General Conspectus of  
Medicinal Plants, (Calcutta 1844).

Provincial Medical and Surgical Journal (BMJ)  
Royal Medico-Botanical Society, London February 22  
1843

## Marijuana (The Drug) in the West (Ireland and England)

- "While the French were the first to begin experimenting with hashish on a relatively large scale, the introduction of cannabis into Western medicine is credited to an Irish physician, Dr. William Brooke O'Shaughnessy."
- "O'Shaughnessy first came to India in 1833 as a thirty-year-old surgeon in the employ of the British East India Company. He also held the position of professor of chemistry at the Medical College of Calcutta."
- He did animal and human research on cannabis while in India. When he returned to England, he gave a talk in 1839 regarding the medicinal value of cannabis in London. In 1841, O'Shaughnessy wrote *On the Preparation of the Indian Hemp or Ganja*. (Aldrich, Michael R. "The Remarkable W.B. O'Shaughnessy." O'Shaughnessy's. Spring 2006)
- Promoted cannabis for putative analgesic, sedative, anti-inflammatory, anti-spasmodic and anticonvulsant properties.

**O'Shaughnessy's  
Online  
Editor Fred Gardner**



**O'Shaughnessy's**  
The Journal of Cannabis in Clinical Practice

Logical response to a public health emergency...  
**Cannabis enables pain patients to cut opioid use;  
Availability would reduce ER visits and OD deaths**

By Dr. Fred Gardner, Editor  
The medical community has long recognized the value of cannabis in the treatment of pain. In a recent study published in the Journal of Cannabis in Clinical Practice, researchers found that patients using cannabis for pain management were able to significantly reduce their opioid use. This finding is particularly important given the current opioid crisis in the United States. The study involved 100 patients who were prescribed opioids for chronic pain. Over a six-month period, 50 of these patients were encouraged to use cannabis as an alternative pain management strategy. The researchers found that the cannabis group was able to reduce their opioid use by an average of 40%. This reduction in opioid use was associated with a decrease in emergency room visits and overdoses. The researchers concluded that the availability of cannabis as a pain management option could significantly reduce the burden of the opioid crisis.



The researchers also found that patients using cannabis for pain management were able to improve their quality of life. This finding is particularly important given the current opioid crisis in the United States. The study involved 100 patients who were prescribed opioids for chronic pain. Over a six-month period, 50 of these patients were encouraged to use cannabis as an alternative pain management strategy. The researchers found that the cannabis group was able to reduce their opioid use by an average of 40%. This reduction in opioid use was associated with a decrease in emergency room visits and overdoses. The researchers concluded that the availability of cannabis as a pain management option could significantly reduce the burden of the opioid crisis.

**Medical Boards' Restrictive Practice Guidelines  
Challenged by Society of Cannabis Clinicians**

By Dr. Fred Gardner, Editor  
The Society of Cannabis Clinicians (SCC) has filed a lawsuit against several state medical boards, challenging their restrictive practice guidelines. The lawsuit alleges that these guidelines are discriminatory and violate the rights of cannabis clinicians. The SCC argues that the medical boards have created a barrier to entry for cannabis clinicians, preventing them from practicing their profession. The lawsuit seeks to have the restrictive practice guidelines struck down. The SCC also argues that the medical boards have failed to provide adequate oversight and regulation of cannabis clinicians. The lawsuit is currently pending in court. The SCC is committed to advocating for the rights of cannabis clinicians and ensuring that they are able to practice their profession without unnecessary restrictions.



**O'Shaughnessy's**  
The Journal of Cannabis in Clinical Practice

ECLA Lab Reveals Surprising Results at JCRS Meeting  
**Smoking Cannabis Does Not Cause Cancer  
Of Lung or Upper Airways, Tashkin Finds;  
Data Suggest Possible Protective Effect**

By Dr. Fred Gardner, Editor  
A study presented at the JCRS Meeting in San Francisco, CA, found that smoking cannabis does not cause cancer of the lung or upper airways. The study was conducted by Dr. Aron D. Tashkin and his colleagues. The researchers followed a group of 100 heavy cannabis smokers for 10 years. During this time, the researchers monitored the participants for the development of lung and upper airway cancer. The results of the study showed that there was no significant increase in the incidence of lung or upper airway cancer among the cannabis smokers compared to a control group. The researchers also found that the cannabis smokers had a lower incidence of chronic obstructive pulmonary disease (COPD) compared to the control group. The researchers concluded that smoking cannabis does not cause cancer of the lung or upper airways and may have a protective effect against COPD.

**O'Shaughnessy's**  
The Journal of Cannabis in Clinical Practice

Researcher suggests...  
**U.S. weighs rescheduling a molecule  
as CBD-rich cannabis proves helpful  
to children with epilepsy and others**

By Dr. Fred Gardner, Editor  
The U.S. government is considering rescheduling a molecule found in cannabis, as research shows it is helpful for children with epilepsy and other conditions. The molecule in question is cannabidiol (CBD). CBD has been found to be effective in the treatment of several types of epilepsy, including Dravet syndrome and Lennox-Gastaut syndrome. CBD has also been found to be helpful in the treatment of other conditions, including anxiety, depression, and chronic pain. The U.S. Food and Drug Administration (FDA) has already approved a CBD-based drug for the treatment of two types of epilepsy. The FDA is now considering rescheduling CBD from Schedule I to Schedule II, which would allow for more widespread use of CBD in the treatment of other conditions.



**From 1850 to 1936, cannabis was used as the primary medicine for more than 100 separate illnesses and/or diseases in the U.S.**



Link in bio



**UTERINE SEDATIVE ELIXIR**  
ALCOHOL 20 PER CENT.

Each tablespoon contains:		
Scarf Vine	...	40 grains
Marsh Mall	...	40 grains
Junonia Depressa	...	20 grains
Hydnora	...	20 grains
Black Cohosh	...	20 grains
Carrots Sap	...	20 grains
Hypocistis	...	20 grains
Pink Squill	...	20 grains
Camphor Resin	...	1 grain
Aromatic Spirit	...	...

S. H. BOYD & CO.  
Druggists and Chemists  
WOOSTER, OHIO

**NERVE IMPROVED ELIXIR**  
S-182

Each tablespoon represents:

Cannabis Indica	40 gr
Americanus Scilla	40 gr
Sodium Bromide	40 gr
Strontian Bromide	40 gr
Phosphoric Acid	40 gr
Fluoride	40 gr
Hops (Humulus)	32 gr
Liquorice	5 gr

Useful in the treatment of congestive, convulsive and other nervous disorders. Nervous, muscular, rheumatic affections due to derangements of the nervous system, epilepsy, nervous headache, rheumatism, hysteria, neuralgia, etc.

Dose—1 to 2 tablespoonfuls 4 or 6 times as indicated.

THE OILS OF CALIFORNIA CO.  
Pharmaceuticals - CALIFORNIA

## Commissioner of the Federal Bureau of Narcotics 1930-1962 (1st US Drug Czar).



Harry Anslinger, commissioner of the Federal Bureau of Narcotics, testifies before Congress  
 (Courtesy of Historical Collections and Labor Archives, Special Collections Library, Penn State University)

## Anslinger, Chief of The Federal Bureau of Narcotics and Race

- In 1929, Harry Anslinger became head of the Federal Bureau of Narcotics. He often used Hearst's newspapers as a platform for his drug demonization propaganda-putting the spotlight on cannabis. Anslinger made a bogus connection between "marijuana" (he didn't use the word "cannabis") and murder, mayhem, Mexicans, Negroes, jazz and sex.
- From the beginning, Anslinger conflated drug use, race, and music. "Reefer makes darkies think they're as good as white men," he was [quoted](#) as saying. "There are 100,000 total marijuana smokers in the U.S., and most are Negroes, Hispanics, Filipinos and entertainers. Their Satanic music, jazz and swing result from marijuana use. This marijuana causes white women to seek sexual relations with Negroes, entertainers and any others."
- Anslinger was the head of the bureau for 30 years.



Armstrong in 1953

Louis Armstrong: "Mary Warner, you sure was good to  
me"

(Courtesy of Frank Driggs Collection/Getty Images)

## Reefer Madness, 1936



## The Marijuana Tax Act 1937

- William Woodward, the legislative counsel for the American Medical Association (AMA), who challenged Anslinger's claim that cannabis was a dangerous drug with no therapeutic value. AMA doctors, Woodward asserted, were wholly unaware that the "killer weed from Mexico" was actually cannabis. He accurately predicted that federal legislation banning marijuana would strangle any medical use of the plant. (Lee, Martin A.. Smoke Signals: A Social History of Marijuana - Medical, Recreational and Scientific (p. 54). Scribner. Kindle Edition).
- Despite that, dozens of pharmaceutical preparations containing cannabis extracts—pills, syrups, topical ointments—were still widely available in August 1937 when a clueless U.S. Congress, hoodwinked by Anslinger, approved legislation that effectively banned all forms of hemp through prohibitive taxation.

## The United Nations Single Convention Drug Treaty

- The 1961 Single Convention Treaty required all signatory countries to adopt and maintain domestic legislation and penal measures against cannabis and other drugs. Drafting and lobbying for the Single Convention's section on marijuana was Anslinger's last hurrah as FBN chief, the coup de grâce that would make it impossible for the U.S. government to relax its marijuana policies, or so he believed. (Martin Lee, Smoke Signals, Scribner, Kindle Edition).
- But caveats in the text exempted hemp's medicinal and industrial applications from the new international treaty, which was formally ratified by the United States in 1968. Also Bhang in India was exempted. (Martin Lee, Smoke Signals, Scribner, Kindle Edition)
- Earlier treaties had only controlled [opium](#), [coca](#), and derivatives such as [morphine](#), [heroin](#) and [cocaine](#). The Single Convention, adopted in 1961, consolidated those treaties and broadened their scope to include [cannabis](#) and drugs whose effects are similar to those of the drugs specified.
- In 1970, the U.S. Congress enacted the [Controlled Substances Act](#) to implement the UN treaty, placing marijuana into Schedule I.

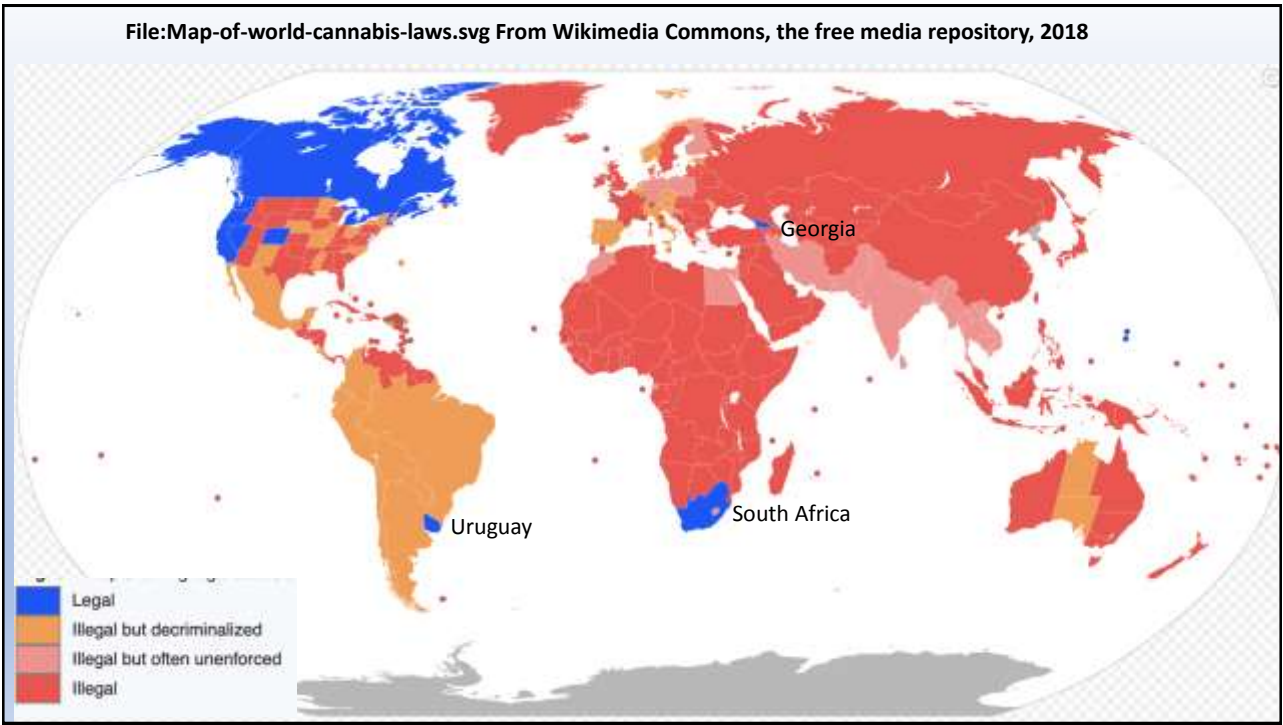
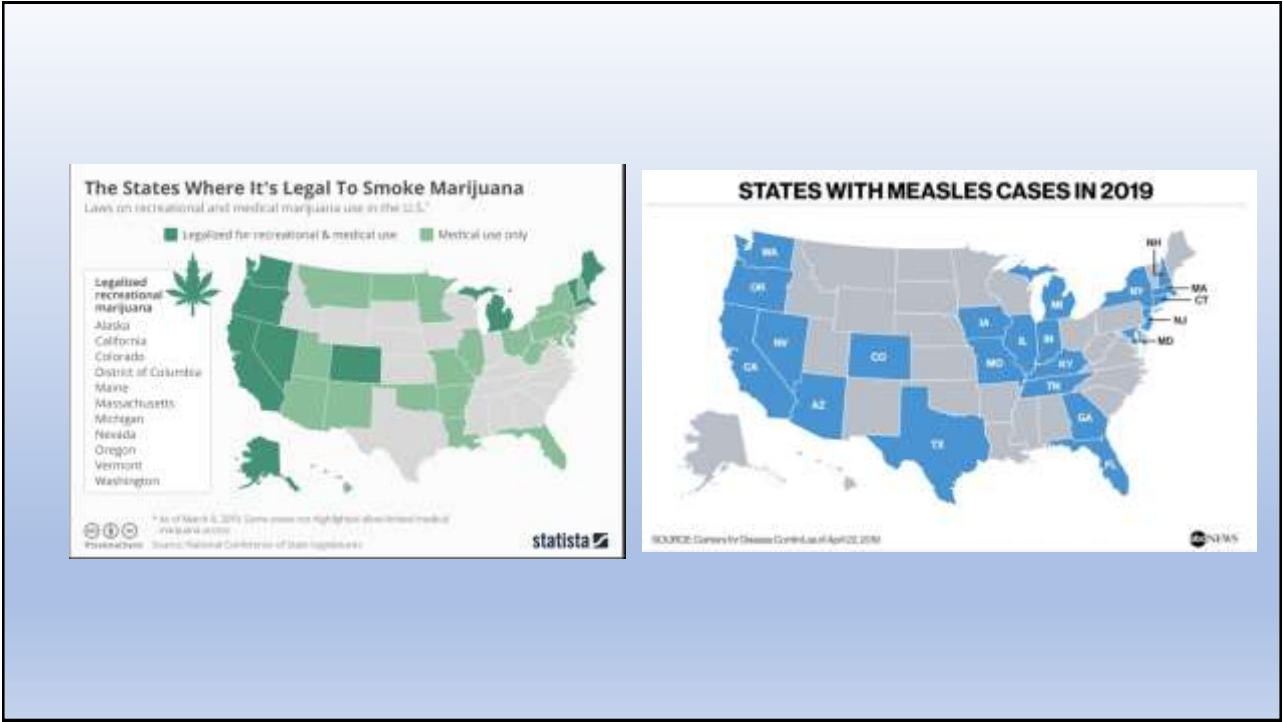


Justice Louis D. Brandeis referred to people like Anslinger: "The greatest dangers to liberty lurk in insidious encroachment by men of zeal, well-meaning but without understanding."

"Lee, Martin A.. Smoke Signals: A Social History of Marijuana - Medical, Recreational and Scientific (p. 48). Scribner. Kindle Edition.

In 1916, President [Woodrow Wilson](#) nominated Brandeis to become a member of the Supreme Court. His nomination was bitterly contested, partly because, as [Justice William O. Douglas](#) wrote, "Brandeis was a militant crusader for social justice whoever his opponent might be. He was dangerous not only because of his brilliance, his arithmetic, his courage. He was dangerous because he was incorruptible... [and] the fears of the Establishment were greater because Brandeis was the first Jew to be named to the Court." His opinions were, according to legal scholars, some of the "greatest defenses" of [freedom of speech](#) and the [right to privacy](#) ever written by a member of the Supreme Court.





NEW JERSEY MARIJUANA

## N.J. won't be getting legal weed soon. Here's what went wrong.

Updated Mar 26, 2019; Posted Mar 25, 2019



[Gov. Murphy speaks about the current state of legal marijuana in New Jersey](#)

## U.S. Annual Marijuana Arrests 1965-2017





Vaping with a vape pen that employs a cartridge with cannabis extract and a vape battery.



## Medical Marijuana in New Jersey

- New Jersey passed its **MMJ law in 2010**, but the program grew slowly under anti-marijuana governor Chris Christie, Murphy's predecessor.
- **More than 45,800 patients participating.**
- The registration fee is \$200.
- According to a local newspaper, it costs between \$680 and \$960 to buy the maximum purchase amount of two ounces per 30 days.
- Illegal around \$340/ounce.
- Over 930 physicians, and 1800 caregivers.
- Around 70,000 plants grown in 2018.

### What debilitating conditions are approved by the MMP program in NJ?

A physician must certify that a patient has an approved debilitating medical condition to participate in the Medicinal Marijuana Program. **Approved debilitating medical conditions include:**

- Amyotrophic lateral sclerosis
- Anxiety
- Chronic pain related to musculoskeletal disorders
- Chronic pain of visceral origin
- Migraine
- Multiple sclerosis
- Opioid Use Disorder as an adjunct to Medication Assisted Therapy
- Terminal cancer
- Muscular dystrophy
- Inflammatory bowel disease, including Crohn's disease
- Terminal illness, if the physician has determined a prognosis of less than 12 months of life
- Tourette's Syndrome

**The following conditions apply, if resistant to, or if the patient is intolerant to, conventional therapy:**

- Seizure disorder, including epilepsy
- Intractable skeletal muscular spasticity
- Glaucoma
- Post-Traumatic Stress Disorder (PTSD)

The following conditions apply, if severe or **chronic pain, severe nausea or vomiting, cachexia or wasting syndrome results from** the condition or treatment thereof: Positive status for human immunodeficiency virus, Acquired immune deficiency syndrome, Cancer

## Health Effects of Marijuana - The National Academies of Sciences 2017

### CONCLUSIONS FOR: THERAPEUTIC EFFECTS

**There is conclusive or substantial evidence that cannabis or cannabinoids are effective:**

- For the treatment for chronic pain in adults (cannabis) (4-1)
- Antiemetics in the treatment of chemotherapy-induced nausea and vomiting (oral cannabinoids) (4-3)
- For improving patient-reported multiple sclerosis spasticity symptoms (oral cannabinoids) (4-7a)

**There is moderate evidence that cannabis or cannabinoids are effective for:**

- Improving short-term sleep outcomes in individuals with sleep disturbance associated with obstructive sleep apnea syndrome, fibromyalgia, chronic pain, and multiple sclerosis (cannabinoids, primarily nabiximols) (4-19)

**There is limited evidence that cannabis or cannabinoids are effective for:**

- Increasing appetite and decreasing weight loss associated with HIV/AIDS (cannabis and oral cannabinoids) (4-4a)
- Improving clinician-measured multiple sclerosis spasticity symptoms (oral cannabinoids) (4-7a)
- Improving symptoms of Tourette syndrome (THC capsules) (4-8)
- Improving anxiety symptoms, as assessed by a public speaking test, in individuals with social anxiety disorders (cannabidiol) (4-17)
- Improving symptoms of posttraumatic stress disorder (nabilone; one single, small fair-quality trial) (4-20)

**There is limited evidence of a statistical association between cannabinoids and:**

- Better outcomes (i.e., mortality, disability) after a traumatic brain injury or intracranial hemorrhage (4-15)

**There is limited evidence that cannabis or cannabinoids are ineffective for:**

- Improving symptoms associated with dementia (cannabinoids) (4-13)
- Improving intraocular pressure associated with glaucoma (cannabinoids) (4-14)
- Reducing depressive symptoms in individuals with chronic pain or multiple sclerosis (nabiximols, dronabinol, and nabilone) (4-18)



## Emails From the Authors of this Study, Dr Marta Di Forti and Dr. Murray, Robin

- 2/3 ARE NON-AFFECTIVE PSYCHOSIS SO MORE OF THE SCHIZOPHRENIA TYPE AND THE REST BIPOLAR AND SEVERE DEPRESSION BOTH WITH PSYCHOTIC SYMPTOMS.
- INDEED WE EXCLUDED INTOXICATION, 48 HOURS DURATION, AND ALL THE CASES HAD TO PRESENT AT LEAST 1 WEEK OF SYMPTOMS TO BE ASSESSED AND TO BE INCLUDED A MONTH. SO WE ARE TALKING ABOUT A DIAGNOSIS THAT LASTS AT LEAST ONE MONTH.
- WE DO NOT HAVE FOLLOW UP DATA ON THE SAMPLE SO I CANNOT COMMENT FOR THE LONGER DURATION THOUGH WE KNOW FROM OTHER STUDY THAT PATIENTS WHO STOP USING CANNABIS AFTER THE ILLNESS ONSET DO BETTER AND MOST RECOVER, THOUGH THIS IS NOT A QUESTION ADDRESS BY THE STUDY.
- INDEED FOR SOME CANNABIS, HIGH POTENCY IS WHAT PUSHES OVER THE THRESHOLD.
- IN A SEPARATE ANALYSES I HOPE TO PUBLISH SOON, I SHOW THAT GENETIC PREDISPOSITION TO SCHIZOPHRENIA DOES NOT ENTIRELY EXPLAIN THE ASSOCIATION BETWEEN CANNABIS USE AND PSYCHOSIS AND THAT MOSTLY THEY ACT INDEPENDENTLY. I AM NOW LOOKING IF GENETIC VARIANTS FROM THE ENDOCANNABINOID SYSTEM BUT HELP TO UNDERSTAND WHO ARE THOSE AT RISK TO COME TO HARM (PSYCHOSIS) WHEN THEY SMOKE HIGH POTENCY CANNABIS.
- VERY FEW WERE BRIEF. HOWEVER, THOSE WHO STOPPED CANNABIS DID MUCH BETTER THAN THOSE WHO CONTINUED, AND A PROPORTION GRADUALLY RECOVERED OVER THREE OR MORE YEARS. WE HAVE DONE A META-ANALYSIS ON THIS – SEE ATTACHED.
- THESE WERE ALL RECREATIONAL USERS, NOT MEDICINAL (THE LATTER IS NOT COMMON IN EUROPE IN YOUNG PEOPLE).



## Medical Cannabis EVIDENCE BASED INDICATIONS

Stephen Dahmer, MD

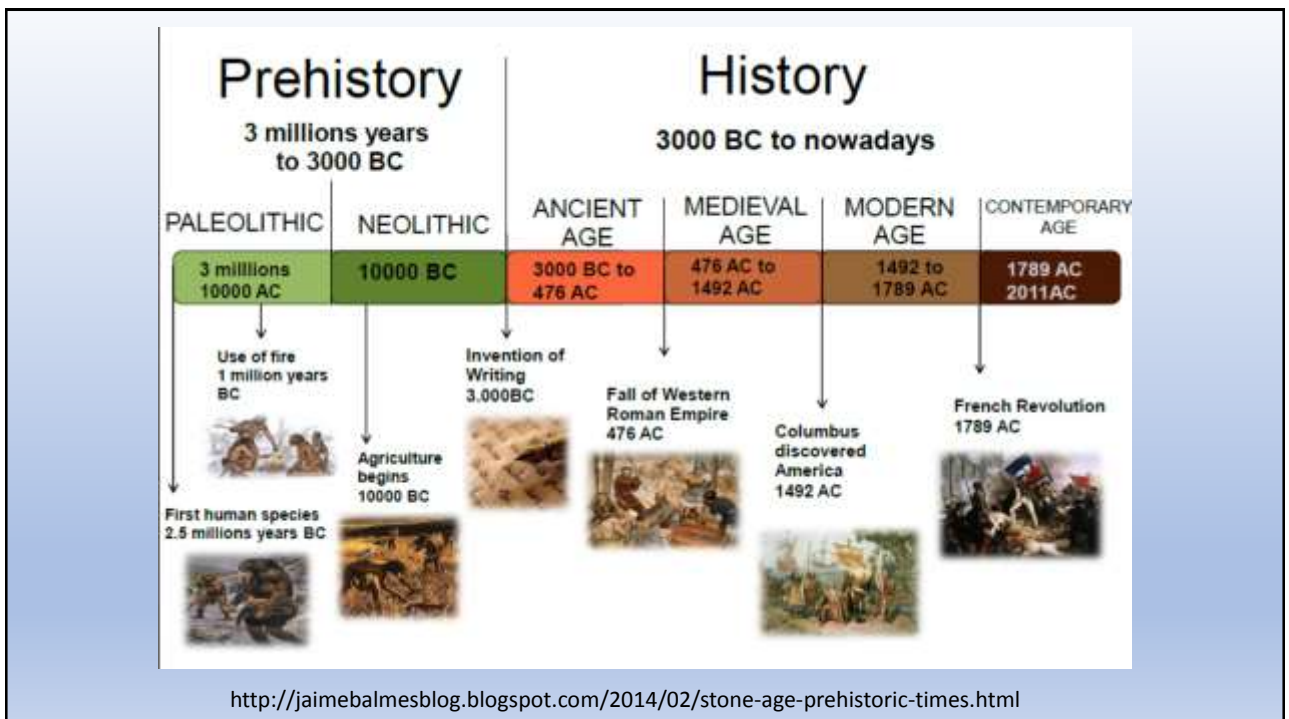
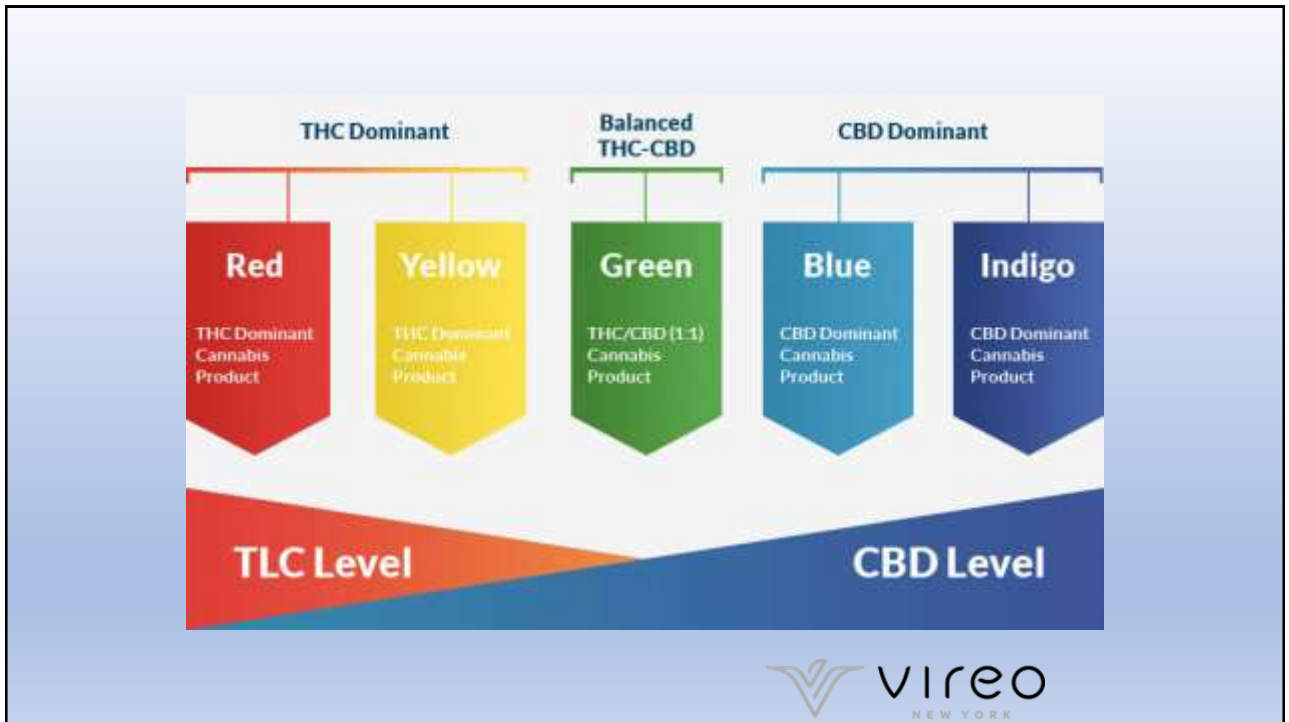
Chief Medical Officer  
Vireo Health



Assistant Clinical  
Professor | Family Medicine &  
Community Health | ICAHN





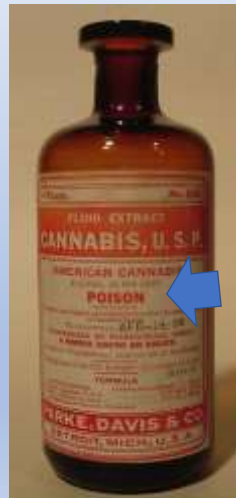
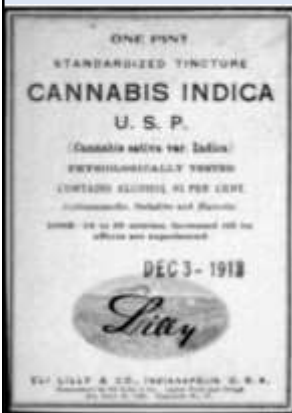


## SUFIS AND THE ARAB WORLD

### From “Marijuana The First Twelve Thousand Years”

- Sufism is a mystical Islamic belief system and practice from the 11<sup>th</sup> Century in which Muslims seek to find the truth of divine love and knowledge through direct personal experience of God. It consists of a variety of mystical paths that are designed to ascertain the nature of humanity and of God and to facilitate the experience of the presence of divine love and wisdom in the world.
- The earliest groups to use hashish on a large scale were the Sufis, an economically and socially scorned sector of Moslem society, who justified their use of the drug as a “way of communing with their god.”
- The lowly social standing of the poor was attributed to their use of hashish, and the very term “hashish user” became an insulting epithet for what the upper classes regarded as the social misfits of their society.
- For the Sufis, however, hashish was merely a means of stimulating mystical consciousness and appreciation of the nature of Allah. To the Sufi, a Moslem critic wrote, eating hashish is “an act of worship.”
- The dominant drug in both countercultures was made from cannabis. For the hippie, it was marihuana; for the Sufi, hashish.
- According to one source, the Sufis had a special way of preparing their hashish. First, they baked the leaves until The group that killed and injured hundreds of people in Sri Lanka follows a fundamentalist form of Islam that believes Sufi Muslims, who adhere to a mystical school of Islam, are heretics along with others.
- The hippies in the 1960s were a counterculture movement that brought peace, drugs, and free love across the United States.

By the 1930s at least two American companies Parke-Davis and Eli Lilly were selling standardized extracts of marijuana for use as an analgesic, an antispasmodic and sedative. Another manufacturer, Grimault & Company, marketed marijuana cigarettes as a remedy for asthma.



The [Pure Food and Drug Act](#) was then passed by the [United States Congress](#) in 1906 and required that certain special drugs, including cannabis, be accurately labeled with contents. Poison for addictive or dangerous drugs including cannabis, alcohol, opium, etc.

## Popular Approach to Taxonomy of an Outdoor Grower in The Netherlands



harmony DISPENSARY

OUR MENU PRODUCTS EDUCATION ABOUT

### Our Menu

Black Bag Line (Whole Flower)

Convenience Line (Pre-Roll & Pre-Ground)



## Boss Hogg

Indica/Sativa 30/70

Boss Hogg is a balanced hybrid of Chemdog x Chem #11 genetics, and is a harmony of Indica and Sativa effects. It relaxes the body while stimulating the mind. This strain can adapt to your mindset and your needs. The Boss Hogg has hints of its diesel family origins, with a forward sweet hash flavor, like sweet sap and earthy incense. This is the perfect meditation medicine.

### Dominant Terpenes

- Terpinolene
- Hexololol
- Ocimene
- Beta-Caryophyllene
- Myrcene

### A Drug Raid on Campus

1968's police sweep at Stony Brook, a national first of its kind, ignites controversy

By Michael Doman  
Staff Writer

[Email this story](#)

[Printer friendly format](#)

#### Photo



A woman masks her face as her boyfriend is handcuffed in a drug raid (Newsday Photo/Mary Surman)

There were 165 uniformed Suffolk police officers and plainclothes detectives out there in the darkness at 5 a.m.

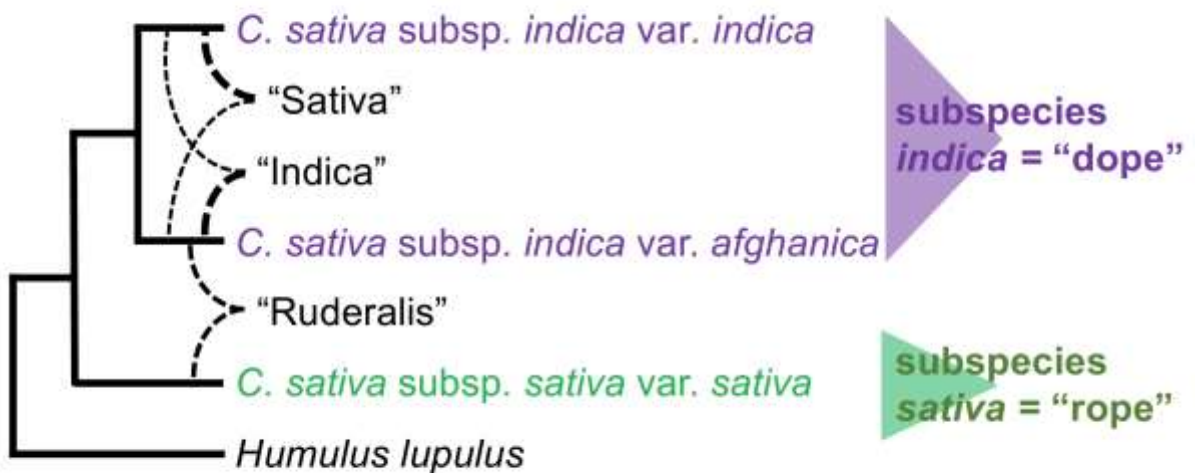
They were holding warrants for 38 suspects named in a sealed indictment. Also in their hands were copies of an elaborate manual drawn up for the raid. Bearing the crest of the county police narcotics squad, the manual included pictures of a marijuana leaf and a poppy. It contained maps of all the places to be raided and descriptions of the suspects and their associates ("subject in the past has worn an American flag as a cape"). The manual emphasized the need for caution and strict radio silence.





Graphic for Professor Dale Deutsch, courtesy of Dr. John McPartland, DO, 18 Feb 2019

### Phylogenetic tree of three varieties of cultivated *Cannabis*, with putative hybridization events marked by dashed lines



**Bona fide relationship:**

- The physician-patient relationship must have existed for at least one year; or
- The physician has seen or assessed the patient for their debilitating medical condition on at least four office visits; or
- The physician, after a thorough medical history and physical examination of the patient, assumes the responsibility for providing management and care of the patient's debilitating medical condition.

Video about O'Shaughnessey by a Marijuana Advocate



**U.S. v. Ed Rosenthal**

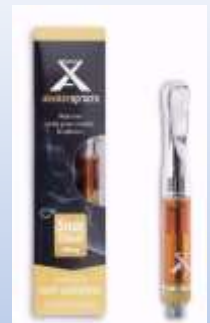
(2006): A jury in San Francisco federal court found Oakland resident Ed Rosenthal guilty of cultivating cannabis, conspiracy to cultivate, and maintaining a place where drugs are manufactured. Jurors were never allowed to hear evidence regarding Prop. 215 or Rosenthal's deputation by the city of Oakland to grow medical cannabis. Jurors publicly recanted their "guilty" verdict after finding out all the facts that were left out of the trial. Rosenthal appealed to the Ninth Circuit, which reversed his conviction in April 2006 due to jury misconduct. [Click to view the ruling.](#)

(2007): In response to the reversal of Rosenthal's convictions, as well as its dissatisfaction with his one-day, time-served sentence, the federal government re-indicted Rosenthal, this time adding new (and frivolous) charges for money laundering and tax evasion. Because the prosecutor admitted that these new charges were added in response to Rosenthal's statements against the government, the additional charges were dismissed by the court as a form of vindictive prosecution. Rosenthal was, again, convicted of cultivating marijuana and, again, was given a sentence of one-day, time-served.



## New Jersey Legalization Bill

- Under the proposed legislation, residents would be allowed to possess and use up to one ounce of dry cannabis flower, edibles infused with cannabis, and **seven grams of concentrate**. Possession of up to 50 grams would be decriminalized as well, and the criminal records of those arrested for possession of cannabis would be expunged.
- Some cities, like Point Pleasant Beach, have already made moves to limit or prohibit recreational cannabis sales in their towns..
- It also imposes a **sales tax** on tangible cannabis products starting at seven percent which would **gradually climb to 25 percent over a five-year period**.
- Most of the version do not allow home growing of plants





# CANNABIS TAXONOMY (CLASSIFICATION)

FROM PRAIRIELANDSCAPES [HTTPS://WWW.YOUTUBE.COM/WATCH?V=IW604\\_ZUIOI](https://www.youtube.com/watch?v=IW604_ZUIOI)

- Marijuana (*Cannabis*) and the closely related hop genus (*Humulus*) are the only widely known genera included in the small, but economically valuable, Cannabaceae (Can-uh-bay-see-aye) family.

## Characteristics of the Cannabaceae

