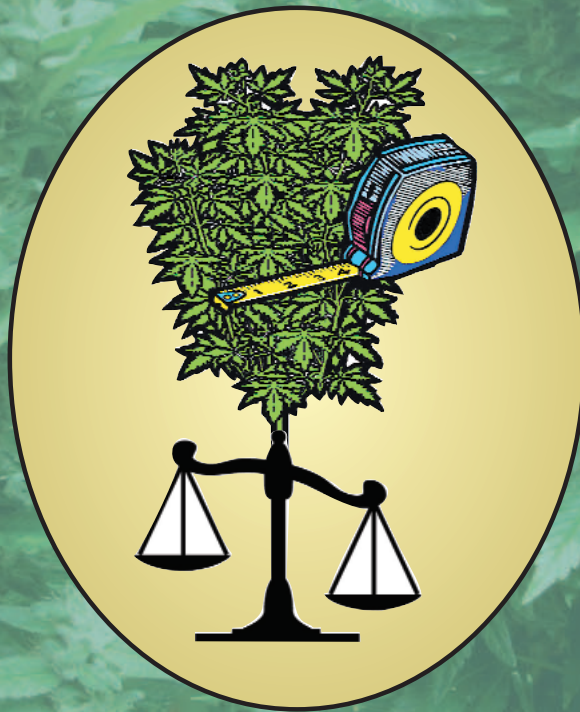


Cannabis Yields and Dosage



A Guide to the Production and Use of Medical Marijuana

Chris Conrad

Safe Access Now • Court-qualified cannabis expert

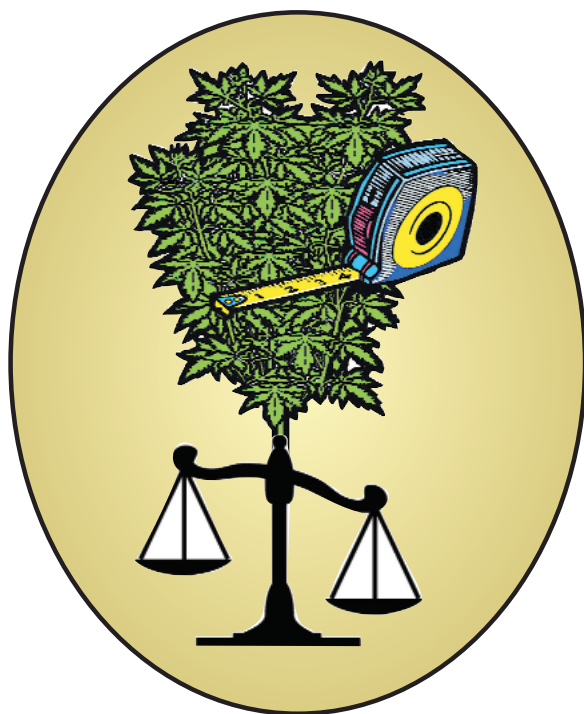
CANNABIS YIELDS AND DOSAGE

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A Guide to the Production and Use of Medical Marijuana



CHRIS CONRAD

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Director, Safe Access Now

CREATIVE XPRESSIONS

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INTRODUCTION



As popular understanding of the medicinal and other benefits of cannabis continues to grow, an honest and common appreciation is needed of how it is produced.

This will prevent harmful arrests and prosecutions, allow law enforcement to focus on serious crime, and save millions in tax dollars. This booklet explains some basic principles to consider. Part I provides essential facts about its uses, dosage and yields. Part II explains the legal setting. Part III covers several States' laws, with references and websites for the reader's continued research and use.

The United States government has done useful research in its decades of experience producing and providing medical marijuana. Its compassionate IND program demonstrates that about six pounds of cleaned female cannabis flowers per year is a safe and effective dosage for chronic health problems. It has also formulated how to estimate garden yields. Ironically, federal law denies medical use as a defense in court. State laws are separate jurisdictions, however, and serve as laboratories for medical and legal reform.

Since California voters passed Proposition 215 in 1996 to give qualified people a legal right to cultivate and possess cannabis, courts have grappled with an unresolved issue left by the mandate: How much marijuana is a reasonable personal supply? In 2003, Senate Bill 420 sought to reduce arrests and provide better access through a voluntary ID card program, legal protections for collective activities and distribution and a minimal safe harbor from arrest. The amount protected is inadequate for many — eight ounces of dried mature processed female cannabis flowers ("sinsemilla bud") or conversion plus six mature or 12 immature plants per patient. However, it also empowers doctors, cities, counties and courts to protect greater amounts and preserves the Prop 215 standard right to a reasonable supply of cannabis.

It is safest for patients and caregivers to stay within stipulated quantities, however many patients with chronic ill health need three pounds or more per patient year, amid a broad range of dosages. Patients who eat cannabis or ingest it in other forms require several times as much raw material as the smoked dosage. Outdoor and indoor gardens use very different techniques, ranging from a few large plants in a back yard to scores of smaller plants in several rooms of a house. Bulk quantities are grown in fields and warehouses.

Data in the Drug Enforcement Administration's *Cannabis Yields* provides a reliable scientific method to estimate outdoor yields that lets patients grow without arbitrary limits on the number of plants: About 3.25 pounds per harvest per 100 square feet of female flowering canopy. A well-known rule of thumb works equally well for indoor growers: One pound per harvest per 1000 watts of HID lamps used for flowering.

The **Safe Access Now Garden Guidelines** — up to 100 square feet of canopy, 4 HID lamps and 3.25 pounds of bud per patient — is based on understanding how an average patient can reliably grow a quantity half the federal government's standard IND dosage and keep the garden a reasonable size. Some patients need more than that, but most patients fit within this quantity and all patients need a safe harbor up to this amount. This SAN system is simple, yet it works. It eliminates the need to train police to assess complicated medical needs, calculate yields, distinguish plant sex and maturity, determine what part of a crop is usable, or understand consumption, processing or storage. No plant counts are required. To check compliance, all anyone needs is a scale, a tape measure and the most basic of math skills.

This booklet shows how and why the SAN Garden Guidelines can and should be used by localities, doctors and legislators. You can help advance this process. Whether a patient, physician, policy maker, prosecutor, police officer or concerned citizen, please take a stand for the principles of reason, compassion and the rule of law.

Special thanks to doctors Michael Alcalay MD, David Bearman MD, Philip Denney MD, Jeffrey Hergenrather MD, Claudia Jensen MD, Frank Lucido MD, Tod Mikuriya MD, Ethan Russo MD, and other physicians for review of medical issues; to attorneys Joe Elford, Omar Figueroa, William Logan, David Nick, William Panzer, Robert Raich and others for review of legal issues; and to Dr. Michael Baldwin, Jeremy Daw, Ben and Alan Dronkers, John Ellis, Andrew Glazier, Monty and Mary Pat Jacobs, Richard Lee, Richard Muller, my wife Mikki Norris, Dr. Ethan Russo, SAN co-founder Ralph Sherrow, Eric Sterling, George Zimmer, DrugSense, Law Enforcement Against Prohibition, NIDA and others for their help in researching, preparing and publishing this document.

Because court rulings and laws are constantly changing, it is impossible to be completely up to date. We recommend that you look for future updates on the websites in the appendix.

For additional information on what you can do to help, visit safeaccessnow.net and chrisconrad.com. Thank you.

A handwritten signature in blue ink, appearing to read "Chris Conrad".

Chris Conrad, Director of Safe Access Now,
author and court-qualified cannabis expert

NOTICE: This booklet is not a substitute for professional medical care or legal counsel. It cannot list every law or court decision, but care has been taken to select and characterize key cases. This information is current as of April 15, 2015. Laws and rulings cited are subject to change or reinterpretation at any time.

Cannabis: Legally grown and provided in daily smoked dosages

Marijuana (*Cannabis sativa*) is a treatment for pain and other symptoms of many diseases; its medical use goes back some 5,000 years. Sometimes cannabis can halt the development of a condition. It is medicine with a safe and effective dosage demonstrated by United States government research. The National Institute on Drug Abuse provides by prescription a standard dose of smoked cannabis to patients in the Compassionate Investigational New Drug (IND) program. This is about two oven-dried ounces per week — a half-pound per month — mailed in canisters of 300 pre-rolled cigarettes consumed at a rate of 10 or more per day.

“Marijuana, in its natural form, is one of the safest therapeutically active substances known to man.”

— DEA Administrative Law Judge Francis Young
Docket No. 86-22. 1988.

This long-term dosage has proven to be safe and effective, with no unacceptable side effects. As seen below in Table 1, from the *Journal of Cannabis Therapeutics*, the annual dose comes to between 5.6 and 7.23 pounds of cannabis. The documented federal single patient dosage averages 8.24 grams per day — that’s more than 1/4 ounce per day, two ounces per week or



This six-inch diameter canister held 254.89 grams, about nine ounces, of federal medical marijuana for an IND patient. This is a typical monthly supply mailed from the federal cannabis research garden in Oxford, Mississippi.

WARNING: Cannabis is non-toxic; however, the form ingested has a major impact on its effect. As with any medication, one should always begin by using a low dosage and increase it as needed.

6.63 pounds smoked per year. The *Safe Access Now Garden Guidelines* propose a safe harbor for a patient to grow up to half the standard federal IND dosage — 3.25 pounds of bud per year per qualified patient.

Table 1: Chronic cannabis IND* patient demographics					
* The Investigational New Drug (IND) program is overseen by National Institute on Drug Abuse: NIDA					
Patient	Age / Gender	Qualifying Condition	IND Approval / Cannabis Usage	Daily Cannabis / THC Content	Current Status
A	62 F	Glaucoma	1988 25 years	8 grams (0.28 oz) 3.80%	Disabled operator / singer / activist / vision stable
B	52 M	Nail-Patella Syndrome	1989 27 years	7 grams (0.25 oz) 3.75%	Disabled laborer / factotum / ambulatory
C	48 M	Multiple Congenital Cartilaginous Exostoses	1982 26 years	9 grams (0.32 oz) 2.75%	Full time stockbroker / disabled sailor / ambulatory
D	45 F	Multiple Sclerosis	1991 11 years	9 grams (0.32 oz) 3.5%	Disabled clothier / visual impairment / ambulatory aids

Source: Russo, Mathre, Byrne, Velin, Bach, Sanchez-Ramos and Kirlin. *Journal of Cannabis Therapeutics*, Vol. 2(1) 2002. p. 9

LONG HISTORY, MANY THERAPEUTIC USES

Cannabis brings relief to a wide variety of body systems and ills

For over 3,500 years, various strains of the green herb *Cannabis sativa*, or true hemp, have been among the most widely used of medicinal plants. This includes civilizations in China, India, Europe, Africa and the Middle East. Cannabis was used in the USA from 1850 to 1937 to treat more than 100 distinct diseases or conditions.

The *Journal of the American Medical Association* ran a 1995 commentary supporting the medical use of marijuana and calling for increased research. Soon thereafter, the National Academy of Science / Institute of Medicine reported to the Office of National Drug Control Policy that “The accumulated data indicate a potential therapeutic value for cannabinoid drugs, particularly for symptoms such as pain relief, control of nausea and vomiting, and appetite stimulation.” (*Marijuana and Medicine*. National Academy Press, 1999. p. 3). Today, scientists hold annual medical conferences to discuss recent research and study naturally occurring human endocannabinoids. Tens of thousands of patients in at least 23 states use cannabis with some legal protection for approved medicinal use.

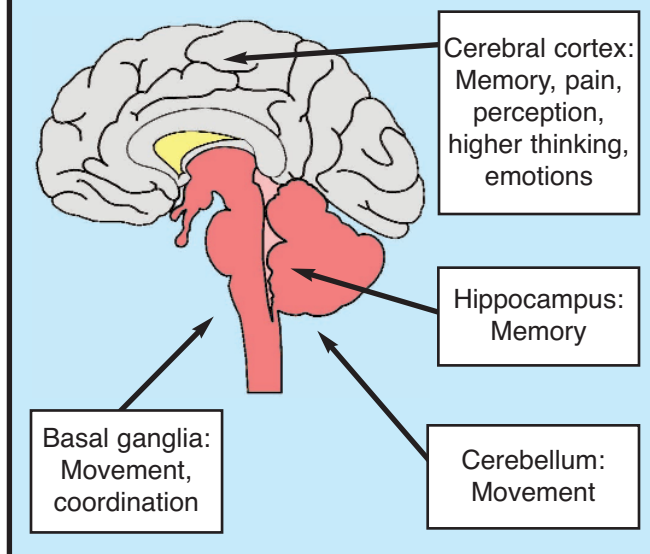
Modern medical uses of cannabis include treatment for many physical and mental illnesses (see list in box). Symptoms of numerous ills can be controlled, bringing effective relief and significantly improving the quality of life and functionality. It is also a stress reducer, an expectorant, and a topical antibiotic. It can be a safe and effective alternative to pharmaceuticals such as Demoral, Valium and morphine. Herbal cannabis and its derivatives are eaten, smoked or used as tinctures, topical salves and herbal packs, depending on the con-

Partial list of health conditions for which medical marijuana is used

Cannabis resin and its derivatives have long been used to treat symptoms of many health conditions or to synergize or control the side effects of other drugs, particularly in chemotherapy and pain management. Among these maladies are:

ADD / ADHD, AIDS, Alzheimer's, anorexia, anxiety, arthritis, asthma, ataxia, bipolar, brain injury, cachexia, cancer, chronic fatigue, chronic and neuropathic pain, cramps, Crohn's, depression, epilepsy, fever, glaucoma, HIV, insomnia, migraine, MS, nausea, neuralgia, neuropathy, Parkinson's, PMS, PTSD, rheumatism, sickle cell anemia, spasms, spinal injury, stress, vomiting, wasting syndrome, etc.

THC receptors in the human brain affect mood, movement, pain



dition being treated. Concentrates and extracted oils are eaten or vaporized, sometimes using “vape pens.”

In general, cannabis is used to treat symptoms rather than to cure disease. Since many health problems cause similar symptoms, however, this means that people with a wide variety of diseases, injuries and congenital maladies all benefit at a basic level: Relief from physical or mental suffering. The intensity and duration of the symptom often dictates the pattern of use.

Of course, no drug works equally well for all people in all circumstances. For some people cannabis is like a miracle drug, while for others it may offer no benefit. Effectiveness is linked to dosage. Some patients find that small amounts suffice, while others need heavy, ongoing dosages to function.

Cannabis bud has a combination of special compounds called cannabinoids that affect various body systems simultaneously at allopathic and homeopathic doses. Not all strains work equally well in treating specific problems. For example, a variety that reduces nausea and stimulates appetite may not be as effective at controlling aches, pains or insomnia. Only certain strains of cannabis plants produce THC (tetrahydrocannabinol) at sufficient levels to be used for medical marijuana.

Hempseed has no drug effect. It is a nutritious nut-like fruit that contains eight proteins in excellent dietary balance plus essential fatty acids that bolster the immune system, work as a gentle laxative and may even reduce “bad” cholesterol levels. There are many ways to prepare hempseed, in its dehulled form it can be sprinkled into most foods. Its oil is used in many foods, salves, lotions, hygiene, health and body care and other products that are already on the commercial market.

SUMMARY MEDICAL EFFECTS OF RESINOUS CANNABIS HEMP (MEDICAL MARIJUANA)

1. Cannabinoids stimulate CB1 and CB2 endocannabinoid receptors on the **brain and other tissues** that affect body systems, triggering a chain of temporary psychological and physiological effects. Initially it has a stimulant effect, followed by relaxation and overall reduction in stress. Analgesic effect. Blocks migraine or seizures. Helps mitigate or control symptoms of multiple sclerosis (MS), spinal injury, epilepsy. Lifts mood and enhances sense of well-being. Relieves chronic and neuropathic pain. Has synergistic effects with opiates and other drugs. Not all cannabis has the same potency or effect. May cause drowsiness, distraction, paranoia or anxiety.

2. Cannabis reddens and dehydrates the **eyes**, lowers intra-ocular pressure.

3. Makes ringing in **ears** (tinnitus) less prominent and easier to bear.

4. Dehydrates the **mouth**, stimulates appetite, enhances flavors and taste.

5. Smoked or vaporized, cannabis has anti-phlegmatic and expectorant effects to clear the **throat and lungs**. Its bronchodilator effect improves oxygen intake for asthma. Smoke can irritate the mouth, throat and respiratory system, but vaporization, oral ingestion and other precautions can mitigate this.

6. Accelerates **heart** beat and pulse. Dilates bronchia, alveoli and blood vessels. When cannabinoids are inhaled, the lungs and cardiovascular system add them to the bloodstream flowing directly to the brain. This is an extremely fast and effective delivery system.

7. Stimulates appetite. Settles the gastrointestinal tract. Calms **stomach**. Reduces nausea and vomiting (antiemetic). Soothes motion sickness and various side effects of radiation and chemotherapy.

8. Little or no effect on **reproductive** system. Cannabinoids cross the placenta without mutagenic effect. Used as a mild aphrodisiac and to enhance the sensual experience.

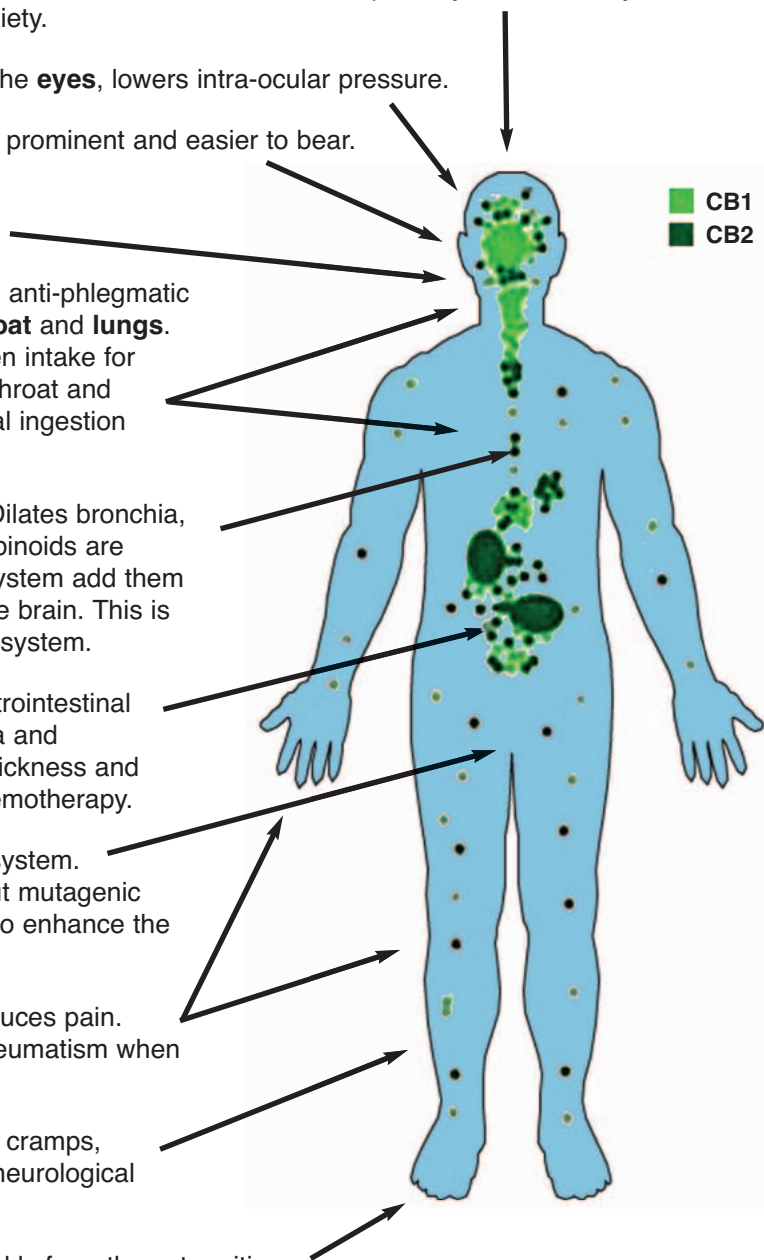
9. Soothes **joints**. Analgesic effect reduces pain. Anti-inflammatory, helps arthritis and rheumatism when taken orally or applied topically.

10. Relaxes **muscles**. Reduces muscle cramps, convulsions, spasms, ataxia and other neurological or movement disorders.

11. Vasodilation carries blood more quickly from the extremities, lowering overall body temperature. Helps reduce fever.

12. The body's **fatty tissues** collect inert cannabinoids for harmless disposal through urine or feces.

© 2015 by Chris Conrad. For more info on medical marijuana, read *Hemp for Health*. Healing Arts Press. 1997.



SYSTEMIC EFFECTS, SYMPTOMATIC RELIEF

Cannabis plant phyto-cannabinoids are terpenes that attach to special receptor sites in the brain and other areas of the body. While much is known about how they affect the body, some of the mechanisms remain unknown, and their effect on individuals can vary greatly. The general scope of effect on body systems and symptom mitigations make cannabis therapeutics beneficial for many diseases, some of which are specified in state laws and others best known through case studies. California allows cannabis use for listed treatments or “any other condition” that a physician approves.

Personal research with the approval of a physician is the safest way for any given patient to determine its potential. So, where to start? First look at what specific symptoms need to be treated, then see if there are any negative effects that contraindicate its use. That will help a patient to identify the appropriate form, dosage and means of ingestion. Start with a low dose and work your way up. Cannabis is exceptionally safe, physically: Not one single death due to cannabis overdose has ever been reliably reported in medical history. Its smoke does not cause cancer, but patients with

Cardiovascular response

Cannabis stimulates the cardiovascular system, like mild exercise, or falling in love.

Stimulates heart rate and dilates blood vessels throughout circulatory system.

Cools the extremities. Helps bring down fevers. Sometimes lowers blood pressure.



emphysema, lung cancer or personal preference may choose a different means of ingestion. Here are some common uses for medical marijuana:

CANCER, AIDS / HIV: Cannabis reduces the gut-wrenching nausea caused by chemotherapy (and radiation therapy), while it stimulates the appetite to help patients eat and combat excessive weight loss (the wasting syndrome) and cachexia. It reduces pain and helps cancer patients sleep and rest. It often raises the patients' spirits and mood, improving their will to live and chance of recovery. Direct application of THC *in vitro* shows promise as a tumor-killing or reducing agent and also kills the herpes virus.

PAIN: Pain control is not only possible by consuming marijuana flowers and resin but possibly even hemp flowers, because cannabidiol (CBD), like THC, seems to have a major analgesic (pain lowering) effect. Not all pain responds to cannabinoids, but some of the most long term and troublesome cases do. Neuropathy and neuralgia respond well, while acute injury pain gets less immediate relief but its intensity feels diminished. Cannabis has synergistic effects with opiates and other drugs, so pain patients can reduce their dosages of prescription drugs that have adverse side effects.

MIGRAINE: Cannabis is frequently used to treat migraine headaches. It helps reduce light sensitivity, nausea, vomiting, and pain, and can be consumed regularly to prevent attacks from occurring or to as needed to reduce the severity of an acute headache. Stress-induced headaches can also be mitigated.

MS: Multiple Sclerosis is characterized by increasing neuropathic pain and degenerative loss of muscle control in two forms: involuntary movements (spasms) and the inability to move (ataxia). Cannabis helps improve movement affected by each of these, while reducing or stopping the pain and related depression.

GLAUCOMA: Most sufferers of glaucoma, one of the world's leading causes of tunnel vision and blindness,

Respiratory effects of inhaled cannabis vapor and/or smoke

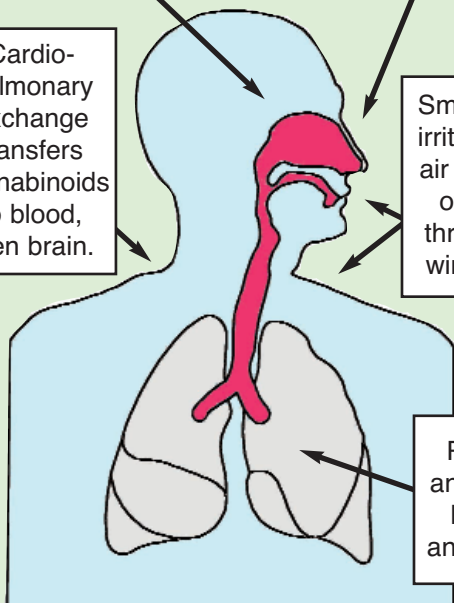
Dries mucus membranes and nasal passages.*

Causes dry mouth (oral dehydration).*

Cardio-pulmonary exchange transfers cannabinoids to blood, then brain.

Smoke may irritate large air passage of lung,* throat, and windpipe.†

Relaxes and dilates bronchi and alveoli.



* Health effect of long-term dehydration of mucus and oral membrane has not been assessed but appears minimal

† Minor bronchitis risk, no cancer or emphysema link.

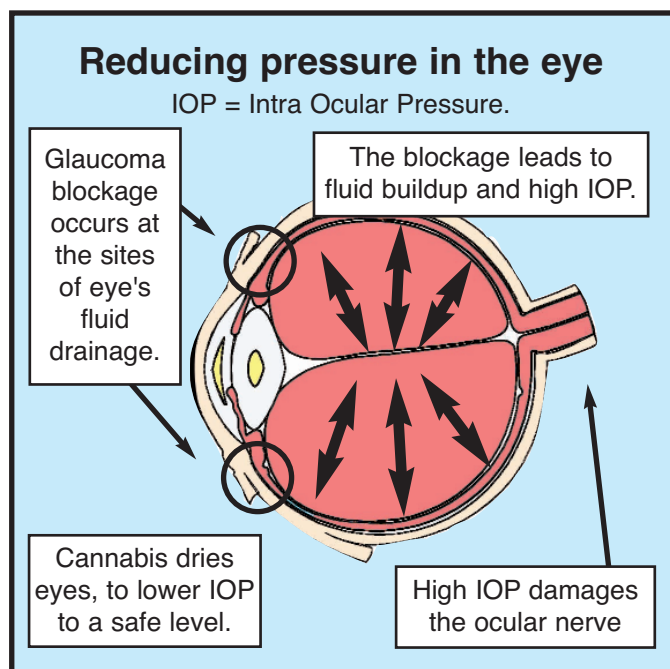
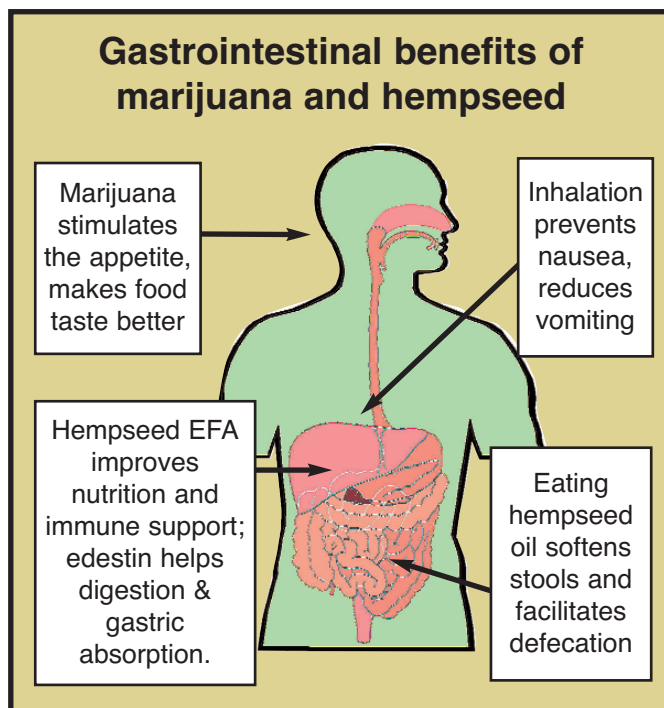
could benefit from cannabis, which reduces pressure in the eye caused by ocular fluid buildup. Its exact mechanism is unknown. Surgery poses severe risk to the eyes and pharmaceuticals hold dangerous side effects, such as liver damage. Regular cannabis use can often halt this painful progressive vision loss by lowering the fluid pressure within the eye. When symptoms appear, smoking can stop an acute attack.

EPILEPSY / SEIZURES: Cannabis can calm down overactive nerves, alleviating seizures that may be caused by a deficiency of natural endocannabinoids.

“One of marihuana’s greatest advantages as a medicine is its remarkable safety. It has little effect on major physiological functions. There is no known case of a lethal overdose Marihuana is also far less addictive and far less subject to abuse than many drugs now used as muscle relaxants, hypnotics, and analgesics. ... The ostensible indifference of physicians should no longer be used as a justification for keeping this medicine in the shadows.”

— *Journal of the American Medical Association*
June 21, 1995. Commentary. p. 1874-1875

ANXIETY, HEART DISEASE: As a major contributor to heart disease, anxiety-induced stress may be the number one killer in America. Cannabis promotes relaxation, reduces mental agitation, anger and anxiety and lends a sense of humor. It can lower blood pressure. Contraindication: When fast heartbeat poses risk.



ARTHRITIS: Eating or smoking cannabis helps control joint pain, reduce inflammation and improve mobility. A traditional treatment for rheumatism and arthritis is to soak cannabis leaves in rubbing alcohol and wrap them around the sore joints to reduce swelling and pain, and ease movement. A general-use topical antibiotic is made by straining the plant matter out and applying the cannabinoids suspended in alcohol.

MENTAL HEALTH: Cannabis enhances sensory experiences such as enjoyment of music and art, and has long been regarded as a mild aphrodisiac. It can stimulate inspiration and critical thinking, increase motivation and reduce malaise such as chronic fatigue syndrome. It is anti-depressant and helps people with attention deficit (ADD / ADHD) to better focus and concentrate. It can stabilize bipolar mood swings and may also help with memory, such as with Alzheimer’s and senility. Studies on veterans show it helps reduce nightmares and rage caused by PTSD. Contraindication: Possibly in schizophrenia. May cause paranoia or panic attack.

ABLE-BODIED YOUNG MAN SYNDROME: When an apparently able-bodied young person has a doctor’s note, people may assume that they don’t use cannabis as medicine and “just want to get high.” However:

- A person does not have to look sick to be sick.
 - You can’t see pain, and patients often try to hide it.
 - Mental illness is not visible to the naked eye.
 - If cannabis is working, a patient may well appear healthy; in fact, one should hope they do feel better and not resent the fact that their symptoms are diminished.
- For these and other reasons, it is up to the patient to make the determination with a physician as to whether cannabis is the right medicine for them.

DAILY THERAPEUTIC USE

Titrating medical marijuana dosages

Most people are familiar with the use of smoked marijuana for symptomatic relief of chronic and acute health disorders, but there is much more to know about this traditional herbal remedy. As with any medication, start with a small dose and work your way up.

"Its margin of safety is immense and underscores the lack of any meaningful danger in using not only daily doses in the 3.5 – 9 gram range, but also considerably higher doses."

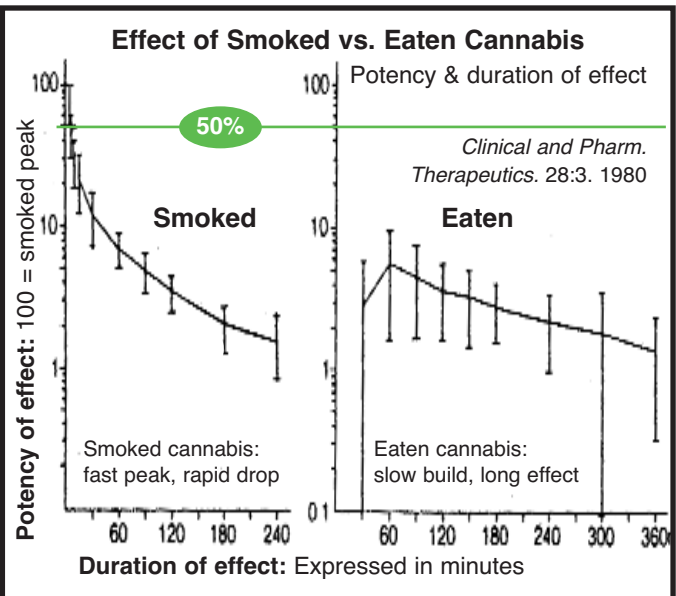
— **David Bearman, M.D.**

Physician, researcher, court-qualified cannabis expert

The phrase "medical marijuana," as commonly used, refers to the cured, mature female flowers of high-potency strains of cannabis or a conversion product. Since cannabis is an annual plant, it is logical to measure its use as an annual dosage. Many patients need three pounds of bud or more per year. A smaller number of daily-use patients smoke six, nine, 12 pounds or more per year for chronic conditions, but dosage varies with each person and how they consume it.

Potency is one factor, but other concerns affect titration, as well. "Whether a one gram marijuana cigarette contains 2% or 8% THC, the cigarette will generally be smoked so as to deliver the smoker's desired cannabinoid dose," NIDA researcher Dr. Reese Jones noted in the UC San Francisco CME class syllabus *Cannabis Therapy* (June 10, 2000, p. 315).

Chronic pain patients tend to use larger amounts, while



acute and terminal patients may use less. Conditions like glaucoma or MS may require continuous use to prevent attacks. Health conditions may periodically or cyclically improve or get worse, causing usage to fall or rise. Some require daily and multiple-daily dosages.

The means of ingestion also affects patient dosage. Smoked cannabis provides rapid and efficient delivery. Most patients consume it this way, but some wish to avoid the smoke. "Vaporizing" it (heat without combustion) may require twice as much. NIDA estimates that eating requires three to five times the smoked dosage. This means that a patient who smokes a pound per year needs about four pounds for the same effect if they eat it, although often they prefer a combination of the two. When eaten, cannabis' effects are spread out over a longer period of time (see graph). This may be particularly good for sleep or situations where smoking is impractical or impossible, but due to its delayed onset and varied metabolic activity, eaten cannabis is hard to titrate. Consumable goods spoil over time, there is a learning curve to prepare recipes, and not every attempt produces usable medicine. Making kief, hash, tinctures, oil, extracts, topical salves and liniment all require ample amounts of cannabis. Resin oil and salve – CBD and THC concentrates – are used topically, taken orally or inhaled in dabs and "vape pens." The CBD compounds have limited psychotropic effect.

Patients should have an accurate scale to weigh, measure, track and titrate their dosage and supply of cannabis as they experiment with their options. All patients need to obtain and possess an adequate supply for some period of future need. Since patients can't simply go to the pharmacy to get this medicine, they are forced to stockpile. From three to six pounds is reasonable as a personal supply. Potency diminishes a bit, but cannabis can be stored in a cool, dry, dark place for years on end without significant loss of effect.

Table 2: Daily smoked dosages

A single cigarette per day weighing less than one gram equates to roughly one ounce per month, or 12 ounces per year.

The national average weight of a cannabis cigarette ranges from 0.5 to one gram each, according to NIDA, the federal National Institute on Drug Abuse.

Some patients consume small cigarettes to conserve their medicine, but for a patient who smokes one gram cigarettes, an ounce (28.3 grams) offers less than one cigarette per day for a month. Furthermore, stem and possibly seeds must be cleaned out of cannabis before it is used. A patient who gets 24 cleaned grams per ounce can roll 30 cigarettes at 0.8 grams each, one per day for a month. However, many patients must smoke cannabis throughout the day.

Three to five average-size cannabis cigarettes per day comes to about one ounce a week, or 3.25 pounds in a year.

USABLE MEDICAL MARIJUANA & CONVERSIONS

Plant, tend, harvest, prepare and store

Cannabis takes root as either seedlings or cuttings (clones). Later, male plants are cut out of the garden to prevent pollination. Female plants grow to full maturity before being cut and harvested. About 75% of the fresh weight is moisture that is lost in the drying process.

“[T]he quantity possessed by the patient or the primary caregiver, and the form and manner in which it is possessed, should be reasonably related to the patient’s current medical needs.”

— **California Court of Appeals,**
People v. Trippet (1997)

Almost half the dry plant matter is stem; only about a quarter (18% to 28%) remains after the herb is cured and manicured into medical-grade bud that has a coating of resin glands with cannabinoids, the active compounds. Since different kinds of cannabis have distinct medicinal benefits, genetics are critical. Breeding is preferably done through selection from among very large numbers — hundreds or even thousands — of individual plants. The list below shows just a few of the ways cannabis is prepared or converted and utilized by patients, caregivers, collectives and cooperatives.

WARNING: Eaten cannabis can take one or two hours to take effect. Avoid overdose: Wait an hour or two after your initial dose before taking more.

Inhaled cannabis: smoked, vaporized, converted

Bud: the dried, manicured mature female cannabis flower
Sinsemilla: seedless cannabis bud
Kef: (keif, kif, kief): powdery resin glands (trichome)
Hashish: compressed resin glands, concentrate
Oil, wax, shatter: Liquefied, paste-like or rigid resin, respectively, extracted using water, CO₂ or solvents

Eaten: oral ingestion

All the various forms listed above can be heated and eaten
Butter: used for cooking or baking edibles
Tinctures: ethyl alcohol (liquor)-based, by the dropper
Food: Pastries, candies, sauce using any of the above
Mari-pills: encapsulated cannabis in oil
RSO, Phoenix tears or CBD-rich concentrated oil
Marinol: Dronabinol, synthetic THC sold by prescription

Topical use: external, transdermal application

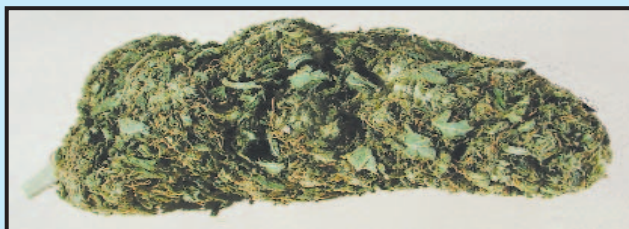
Salve: extracts, cream, balm or oil-based suspensions
Tincture: ethyl alcohol (liquor)-based suspensions
Liniments: isopropyl (rubbing) alcohol-, lanolin- or DMSO-based suspensions

Pending means of ingestion

Sativex: cannabinoid inhalers (similar to asthma inhalers)
A transmucosal application taken orally
GW Pharmaceuticals product (not available in USA)



Maturing female cannabis plants, like the one shown above, produce buds with the concentrated medicinal compounds. Male plants are not usable, so they are promptly removed and destroyed unless pollen is desired for breeding seeds. It usually takes months after the first appearance of female flowers for buds to fully mature. According to the federal *Cannabis Yields* study, only about 7% of the freshly cut mature female plant weight remains in the dried, manicured medical-grade bud.



“Only the dried mature processed flowers of female cannabis plant or the plant conversion shall be considered when determining allowable quantities of marijuana under this section.”

— California Health and Safety Code 11362.77(d)



Patients often roll cigarettes well over 1.0 grams. In this case, a single dosage unit weighed 1.6 grams.

FEDERAL OUTDOOR GARDEN YIELD FORMULAE

Table 3: Average leaf plus flower yields at maturity for high planting densities

Sponsor	Year	Density	Yield*	Seed Stock
Univ of MS	1985	9 ft. sq.	222 grams	Mexico
Univ of MS	1986	9 ft. sq.	274 grams	Mexico
DEA	1990	18 ft. sq.	233 grams	Colombia
DEA	1991	9 ft. sq.	215 grams	Mexico



*Yield: Oven dry weight of usable **leaf and bud** from mature 120 day or older plants.

Source: *Cannabis Yields*. US Department of Justice (DOJ), Drug Enforcement Administration (DEA), 1992. Table 1, page 3.

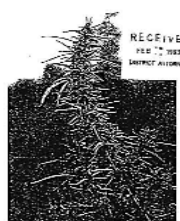
Garden canopy predicts yield

Canopy is a term used in agriculture to describe the foliage of growing plants. The National Institute on Drug Abuse (NIDA) conducted scientific research with the US Drug Enforcement Administration (DEA) at the University of Mississippi, published in the 1992 DOJ report, *Cannabis Yields*. Plant canopies of different seed lines, both sinsemilla and seeded, were measured. The Table 3 federal data (left) is bone dry and includes leaf and bud, so it requires the adjustments in Table 4 (below) to remoisturize and remove leaf to arrive at the more reliable garden yield below.

The data they collected show that, on average, each square foot of mature, female outdoor sinsemilla canopy yields about a half-ounce of dry, manicured bud. This formula is used to project the yield from mature or immature plants. It is consistent with growers' reports, gardens seized by police and common sense. For gardeners of any skill level, the bigger the canopy mass, the greater its yield. Most patients can meet their medical need with 100 square feet of canopy, regardless of how many plants the crop contains.

Today, a canopy's density can be as important as its size. Expert growers use branch supports, compost tea, micronutrients, etc., to more than double the federal yield per square foot; but NIDA provides a weight formula to adjust the yield of bud derived from harvested, mature sinsemilla plants cut at the root. The bud yield is about 7% of fresh crop weight or 28% of dry crop weight.

CANNABIS YIELDS



JUNE 1992
DRUG ENFORCEMENT ADMINISTRATION

SINSEMILLA CANOPY

52% LEAF

Low potency /
Waste matter

48% BUD

Medical grade
Source: DEA

Ratio of
sinsemilla bud
to leaf, excluding
the trunk and
branch stalk.

Dry Sinsemilla Cannabis Components

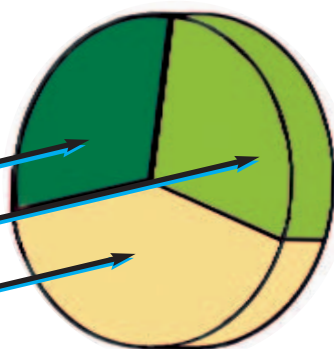
Source: *Cannabis Yields*.
US DOJ/DEA. 1992.
Figure 2, page 5.

LEAF 30%

BUD 28%

**STEM /
BRANCHES 42%**

Percent oven dry weight for 90 day
or older plants which did not have any seed development



WARNING: Do not use butane or other dangerous solvents to extract resin. Many people making "BHO" honey oil have been injured in fires and explosions. The California penalty is very severe. Leave this to the professionals.

Table 4: Sinsemilla bud yields, per square foot of garden canopy

(Oven dry bud, calculated from DEA data in Table 3.)

222 grams x 0.48 = 106.56 g	
(3.76 oz) ÷ 9 square feet =	0.41 ounce
274 grams x 0.48 = 131.52 g	
(4.64 oz) ÷ 9 square feet =	0.51 ounce
233 grams x 0.48 = 111.84 g	
(3.95 oz) ÷ 18 square feet =	0.21 ounce
215 grams x 0.48 = 103.2 g	
(3.64 oz) ÷ 9 square feet =	0.40 ounce
Average plant canopy size:	11.25 square feet
Average oven-dry bud yield per plant:	4 ounces
Average oven-dry bud per square foot:	0.38 ounce
Air-dry bud* yield per square foot:	0.45 ounce
(* Drop outliers. Add 10% moisture, per NIDA suggestion)	

GARDEN ADVERSITY

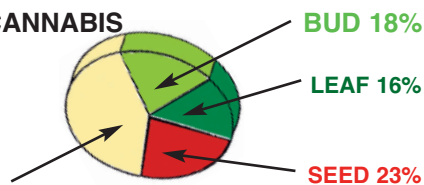
Pollen, pests and plant problems

Contrary to cannabis' reputation as a weed, it is not so easy to grow quality medicine. Not all gardens have ideal conditions and few patients are trained botanists. The NIDA field data does not reflect the problems a patient or caregiver faces in obtaining medical-grade cannabis. Several factors must be clarified:

- The NIDA garden is grown in ideal conditions with full sunlight and fertile, loose, well-drained soil. Many patient gardens are partially shaded or rely on soils of uncertain pH and quality.
- Trained scientists maintain the NIDA garden. Most patients and caregivers are self-taught from books, may overlook serious problems until too late, and seldom have access to expert advice when needed.
- Only mature female plants were considered in the study. Male plants were removed before NIDA made its calculations. Statistically, half of cannabis plants grown from seed are males with no medical value.
- Only healthy plants were considered. Plants that were sick or died were excluded from the study, but in

DRY SEEDED CANNABIS COMPONENTS

Dry weight for
120 day or older
plants with seeds



Source: *Cannabis Yields*, page 5

a real garden this can be a very serious problem.

- NIDA had no loss to theft, pests or law enforcement.
- Unreliable police estimates were listed in the back.

Some gardens yield less than average. Some patients need to grow or store more than a year supply at a time for security issues or as a hedge against crop failure.

When seedless (sinsemilla) cannabis goes to seed, the quality drops and net yield of bud goes down by a third (see chart). Female plants may suddenly become hermaphrodite and grow male flowers. Floods, frost and other bad weather can destroy an entire garden. Deer, rodents and snails snack on young plants and can destroy an entire garden. White fly, spider mites, mealy bugs, thrips, aphids and scores of other insects feed on cannabis. A power failure can wipe out an indoor crop light cycle. Molds, fungus and mildew may attack a crop

at any time; botrytis and root rot are most common just before harvest and can make an entire crop unusable. Since the garden is for human consumption, one can't just go putting all sorts of chemicals on cannabis plants. The *American Herbal Pharmacopeia* in 2013 began to provide standards of potency and purity for cannabis.

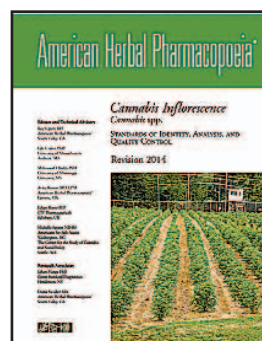


Table 5, left, uses data from the DEA study to show that things can go wrong and even big plants may produce less than an eighth of an ounce per square foot. After you remove seeds, that yields a tenth of an ounce — 1/5 the average, requiring 500 square feet to obtain three pounds of bud and 1000 square feet for six pounds.

Table 5: Big plants can have reduced canopy yields

Source: *Cannabis Yields*. US DOJ / DEA. 1992. Table 2, page 3

Average Cannabis Yields at Maturity for Low Planting Densities

Sponsor	Year	Density	Gross Yield*	Seed Stock
DEA-A	1990	81 ft.sq.	777 grams (27.3 ounces)	Mexico
DEA-B	1990	81 ft.sq.	936 grams (32.8 ounces)	Mexico
DEA-C	1990	81 ft.sq.	640 grams (22.5 ounces)	Mexico
DEA	1991	72 ft.sq.	1015 grams (35.6 ounces)	Mexico
DEA	1991	36 ft.sq.	860 grams (30.2 ounces)	Mexico

* Yield = Dry usable leaf and bud from mature 120 day or older plants.

Calculations using the DEA canopy yield formulae*

* Whereas 48% of gross sinsemilla yield is bud, only 32% of seeded yield is bud.

NIDA leaf plus bud yields	Sinsemilla bud net	Clean seeded bud
A: 27.3 ounces foliage	x 0.48 = 13.1oz	x 0.32 = 8.7oz net
B: 32.8 ounces foliage	x 0.48 = 15.7oz	x 0.32 = 10.4oz net
C: 22.5 ounces foliage	x 0.48 = 10.8oz	x 0.32 = 7.2oz net
DEA: 35.6 ounces	x 0.48 = 17.0oz	x 0.32 = 11.4oz net
DEA: 30.2 ounces	x 0.48 = 14.5oz	x 0.32 = 9.7oz net

Cannabis bud yields per square foot based on low density field data

NIDA leaf and bud yields	Sinsemilla bud net	Clean seeded bud
27.3 ÷ 81 sq' = 0.34oz/sq'	x 0.48 = 0.16oz/sq.ft.	x 0.32 = 0.11oz/sq.ft.
32.8 ÷ 81 sq' = 0.40oz/sq'	x 0.48 = 0.19oz/sq.ft.	x 0.32 = 0.13oz/sq.ft.
22.5 ÷ 81 sq' = 0.27oz/sq'	x 0.48 = 0.13oz/sq.ft.	x 0.32 = 0.09oz/sq.ft.
35.6 ÷ 72 sq' = 0.49oz/sq'	x 0.48 = 0.24oz/sq.ft.	x 0.32 = 0.16oz/sq.ft.
30.2 ÷ 36 sq' = 0.83oz/sq'	x 0.48 = 0.40oz/sq.ft.	x 0.32 = 0.27oz/sq.ft.

INDOORS / OUTDOORS

Different methods, similar yields

Depending on their interest, limitations and abilities, individuals may plant a medicine garden outdoors or inside, under electric lamps. Most patients have difficulty gauging their future yield, so even seemingly large gardens may be honest efforts to comply. Plant counts are the least accurate. California Narcotics Officers Association (CNOA) trainer and Bureau of Narcotics Enforcement expert Earl Mollica, testified on December 15, 2000 (*People v. Urziceanu*), "I have seen plants that produce a quarter gram per plant, 900 of them." The total yield: 225 grams, less than a half pound.

Each grower has better or worse harvests at different times. Some growers get larger yields more often than others but most fall in the middle, so using an average is the most reasonable way to project yields. Outdoor plants typically yield more bud but produce only one harvest per year. Indoor plants may yield less, they but allow for multiple harvests. Either way, 200 square feet of average density canopy should be enough to yield six pounds of bud per year from a healthy garden.

Outdoors: With a typical growing season from March or April to September or October, greenhouse and outdoor plants have ample time to grow and usually more space to spread out, so they tend to be larger.

Half the cannabis plants grown from seed are males that are worthless for marijuana. That's why outdoor canopy should not be evaluated until flowering is fully underway, usually in August. After that, males are eliminated, leaving gaps in the canopy and giving a better sense of the useable canopy size. Plant canopy need not be continuous. A backyard garden often has plants

Outdoors: Natural annual growing season

Plants grow together through the season at different rates. When flowering begins, any male plants are destroyed.

100 square feet of mature female canopy grown from seed or clone is harvested one time, with a total yield of ± 50 ounces (3.1 pounds) of bud to last the entire year.

of different sizes scattered over a wide area. Measure and calculate each plant's individual canopy then add the total to find the actual area of a garden; e.g., 11 round plants each having a 42" diameter (9 square feet) totals 99 square feet of canopy cover.

The female plants are killed in the autumn harvest. To obtain three pounds of sinsemilla bud from 100 square feet of canopy requires a yield of 0.48 ounces per square feet. While the DEA data show an oven-dried average of 0.38 ounces per square foot, by air drying and using better genetics and garden techniques, even average outdoor growers now harvest a half-ounce of



More harvests, smaller plants: Indoor gardens often grow many small plants rather than a few big ones. This dry, mature female plant weighed nine grams including stem, leaf and roots, a yield of 1/10 ounce: less than three grams of finished bud. It took 80 plants this size to yield eight ounces of finished sinsemilla bud.

bud per square foot and some get more. Using light deprivation techniques, two harvests can be produced per year. The following reference chart shows how many rounded plants of a similar size can fit within 100 square feet of total garden canopy.

Number of plants	Individual plant size
1 plant at 9-11' diameter each	64 to 95 sq. ft.
2 at 7-8' diameter	38 to 50 sq. ft.
3 at 6' diameter	28 sq. ft.
5 at 5' diameter	20 sq. ft.
7 at 4' diameter	12.6 sq. ft.
14 at 3' diameter (typical outdoor girth)	7 sq. ft.
33 plants at 2' diameter	3 sq. ft.
99 plants at 1.25' diameter	1 sq. ft.
125 plants at 1' diameter.	0.7854 sq. ft.

Many small plants or a few big ones

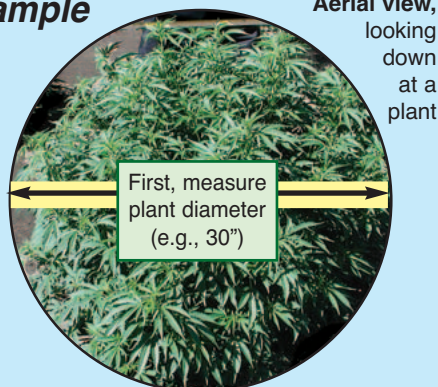
Some people can grow bushy plants outdoors while others need to grow "Sea of Green" gardens indoors with small plants. Most gardens naturally produce an assortment of plant sizes. A typical mature outdoor garden might hold two plants at 4' diameter, six at 3', four at 2' and 12 at 1' diameter to total 24 plants in 92 sq. ft.

Canopy indicates a garden's likely yield without counting plants, knowing if they are seedlings or clones, etc. *Safe Access Now Garden Guidelines* are easy to use and follow for either circumstance. All you need is a tape measure to calculate the canopy size. Consider the overall plant and garden configuration, layout and density, then do the math. Use the weight formula for adjustments to above-average density plants.

How many are too many? It depends. Since a few large cannabis plants can out-produce hundreds of small ones, the number of plants in a garden cannot accurately predict yield. Males and nurseries don't produce bud. A typical indoor garden might include 12 flowering plants in a 32 sq. ft. area, 24 vegetative in 32 sq. ft., four mothers in 24 sq. ft., and 48 starters in eight sq. ft., for a garden total of 88 plants in 96 square feet. The default guidelines in California's SB 420 only protect from arrest up to eight ounces of bud and six mature or

Outdoor Example

A single plant with rounded canopy 30" in diameter covers almost 5 square feet of area



Example:

Plant diameter 30"

Area = π (pi) radius squared

Find radius: $30 \div 2 = 15$ "

Area = π (pi) \times (15 \times 15)

$A = 3.14 \times 225 = 706.5$ sq. in.

$706.5 \div 144$ sq. in* = 4.9 sq. ft

Result: Canopy = 4.9 sq. ft.

Short cut:

Area = diameter sq. \times 0.7854

Diameter sq. = $30 \times 30 = 900$

$900 \times 0.7854 = 706.86$ sq. in.

$706.86 \div 144 = 4.9$ sq. ft.

*1 square foot = 144 square inches

12 immature plants per patient. A 99-plant cap fits below the federal five-year mandatory sentence.

Indoors: A personal indoor garden typically fits into one or two average size rooms using electric lamps, fans and basic garden supplies. While the indoor garden can be harvested three or four times a year, its annual yield is often about the same as outdoors.

Understanding grow lamps: Only part of an indoor garden is used for flowering at any given time. The rest is nursery and vegetative areas that do not produce bud. Cannabis is light sensitive, so a barrier must separate the 12-hour cycles from 18-hour ones. To keep the flowering and vegetative light cycles separated, the crop frequently ends up in two rooms. If half a 100 square foot area is used to flower plants

WARNING: Be sure your wiring is up to code. Electrical overloads and lamp heat can cause fires. Most homes cannot support more than 4500 extra watts. Also beware of flooding, mold and odors.

three times a year, 150 square feet of canopy is harvested annually. For every one or two high intensity discharge (HID) lamps used for flowering, about a pound of bud is harvested per cycle. A reasonably good grower can expect a pound of bud per 1000 watts of illumination in the flowering area. Amounts above that yield are exceptional. Canada's RCMP Research Chair Darryl Plecas suggests that an indoor garden using up to four lamps is consistent with personal cultivation. Add another 25% electrical draw for all the fans, pumps, etc.

Once a patient has an adequate cannabis supply, he or she may periodically shut down the

flowering area but keep the nursery going for future use and as a buffer against adversity and crop loss. Any supply of cannabis or garden canopy that is larger than local or statewide default guidelines should be accompanied by a physician's written authorization if possible, to tell law enforcement that the quantity is legitimate for the patient or patients' current needs.

Remember, whether indoors or out, only the mature female flowering area provides usable bud. Looks can be deceiving. After the plants are ripe, they still must be cut, dried, manicured, cured and processed to the point where only a small percentage of the original weight remains before they are ready to use.

Safe Access Now Garden Guidelines

The SAN guidelines offer a reasonable standard for presumptive compliance: Any garden that covers up to 100 square feet of canopy, uses up to four 1000-watt HID lamps (eg., 2 on a 12-hour flowering cycle, 2 on an 18-hour vegetative cycle) and has on hand up to 3.25 pounds of bud per patient.

Indoors: Two distinct stages of growth

About half of the area is used for flowering females and harvested three times per year, for a total of 56.25 ounces.

The other half is for mothers, seedlings, clones and young plants that are used to refill the flowering area as needed.

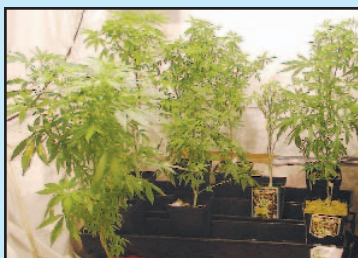
Indoor Example

$8 + 24 + 32 + 32 =$
96 square feet



Nursery: Starter plants (seedlings or clones) in a 4'x2' tray = 8 square feet

Mother plants growing in a 6'x4' area = 24 square feet



Vegetative plants in a 4'x8' tray = 32 square feet



Flowering female plants in a 4'x8' tray = 32 square feet



FEDERAL LAW

Citing the Commerce Clause of the US Constitution, in 1970 Congress passed the *Controlled Substances Act* setting up five *Schedules* to classify drugs under different levels of control. The DEA prohibits cannabis and all its natural derivatives by placing them in Schedule I.

Possession of marijuana for personal use is a federal misdemeanor (21 USC § 844a[a].) There is no medical exception. *Marinol™* (synthetic THC in gel capsules) is available by prescription in Schedule III. Things may soon change. On Feb. 25, 2009, President Obama's Attorney General Eric Holder said that it is now US policy to not raid state-approved medical cannabis but sporadic prosecutions have continued.

Penalties for possessing a federal controlled substance may include up to a year in prison and a fine. Subsequent violations: 90 days to three years plus a fine. Action or conspiracy to cultivate up to 50 plants or distribute up to 50 kilograms of cannabis, 10 kilos of hash, or one kilo of oil draw fines and a sentence up to five years. More than 100 kilos / 100 plants: mandatory five-year sentence; 1000 kilos / 1000 plants, mandatory 10 years, plus fines. Real estate, money, vehicles, securities or other things of value that can be connected to violations of federal drug law are subject to confiscation by the US government (21USC 841, 844, 844a, 881).

Doctors can approve cannabis

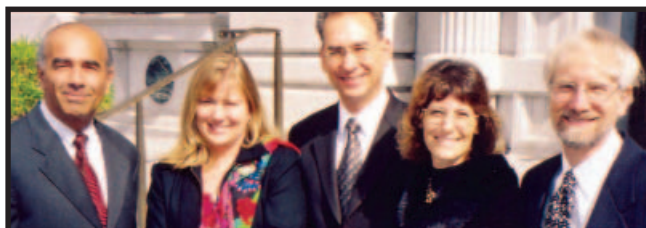
The Ninth Circuit in 2002 affirmed a physician's First Amendment right to speak to a patient and *recommend* or *approve* cannabis without fear of arrest, as long as they do not *prescribe it* or help patients obtain it. *Conant v. Walters* was appealed, but the US Supreme Court denied cert, confirming its validity.

The order enjoins the federal government from either revoking a physician's license to prescribe controlled substances or conducting an investigation of a physician that might lead to such revocation, where the basis for the government's action is solely the physician's professional 'recommendation' of the use of medical marijuana. ... The government has not provided any empirical evidence to demonstrate that this injunction interferes with or threatens to interfere with any legitimate law enforcement activities. Nor is there any evidence that the similarly phrased preliminary injunction that preceded this injunction, *Conant v. McCaffrey*, which the government did not appeal,

Controlled Substances Act of 1970

Criteria for prohibited drugs in USC Title 21 § 812(b): Schedule I (includes heroin, cannabis) requirements:

- A. The substance has a high potential for abuse.
- B. The substance has no currently accepted medical use in treatment in the United States, AND
- C. There is a lack of accepted safety for use of the drug or other substance under medical supervision.



Left to Right: David Michael, Diane Monson, Randy Barnett, Angel McClary Raich and Robert Raich fought for patient rights.

interfered with law enforcement. The district court, on the other hand, explained convincingly when it entered both the earlier preliminary injunction and this permanent injunction, how the government's professed enforcement policy threatens to interfere with expression protected by the First Amendment.

— *Conant v. Walters* (9th Cir 2002) 309 F.3d 629, Cert denied Oct. 14, 2003

Federal ban includes state-legal sales

The Supreme Court held in *US v. Oakland Cannabis Buyers' Coop.* that the doctrine of "medical necessity" does not give marijuana providers a defense against federal distribution charges, even for free, within state borders, to seriously ill patients who have tried all other alternatives. It did not rule out individual necessity.

[T]he Controlled Substances Act ... reflects a determination that marijuana has no medical benefits worthy of an exception (outside the confines of a Government-approved research project).

— *US v. OCBC*, 532 U.S. S.Ct. 483, 491 (2001).

Feds can prosecute state patients

The Ninth Circuit's *Raich v. Ashcroft* appellate ruling held that the Interstate Commerce clause cannot ban non-commercial cannabis in a state where it is legal, but a divided US Supreme Court reversed *Raich* in 2005, in a blow to patients and States' rights. It did not address issues of substantive due process or medical necessity. It urged Congress to reform federal laws.

The question before us, however, is not whether it is wise to enforce the statute in these circumstances; rather, it is whether Congress' power to regulate interstate markets for medicinal substances encompasses ... drugs produced and consumed locally. ... The authority to grant permission whenever the doctor determines that a patient is afflicted with 'any other illness for which marijuana provides relief,' Cal. H&S §11362.5 is broad enough to allow even the most scrupulous doctor to conclude that some recreational uses would be therapeutic. ... [T]he [CSA] statute authorizes procedures for the reclassification of Schedule I Drugs. Perhaps even more important than these legal avenues is the democratic process, in which the voices of voters allied with these respondents may one day be heard in the halls of Congress. Under the present state of the law, however, the judgment of the Court of Appeals must be vacated.

— *Gonzales v. Raich*, 125 U.S. S.Ct. 2195 (2005)

Jurors can acquit without penalty

It is reasonable for anyone to doubt government "facts" about cannabis and its use. American jurors who reject any "facts" put forth by a prosecutor, and vote to acquit, are not subject to any punishment for doing so.

THE SEPARATION OF JURISDICTIONS

US Supreme Court leaves State laws on medical cannabis valid and intact

The US Supreme Court denied cert on May 18, 2009 to *San Diego v California*, a lawsuit in which the County of San Diego lost its bid to overturn state medical marijuana laws, and thereby affirmed their validity. The US High Court left intact a July 31, 2008 California Appellate ruling that the state is free to decide whether to punish cannabis users under its own laws.

The California Supreme Court previously declined to review the same appellate decision on October 16, 2008. The County has now lost at all levels of the State and federal court systems with its claim that federal law invalidates state medical marijuana laws.

In this action, plaintiffs County of San Diego (San Diego) and County of San Bernardino (San Bernardino) contend that, because the federal *Controlled Substances Act* (21 U.S.C. §§ 801-904, hereafter CSA) prohibits possessing or using marijuana for any purpose, certain provisions of California's statutory scheme are unconstitutional under the Supremacy Clause of the US Constitution. ... Counties argue the MMP* is invalid under preemption principles, arguing the MMP poses an obstacle to the congressional intent embodied in the CSA. (*Senate Bill 420.)

The trial court below rejected Counties' claims, concluding the MMP neither conflicted with nor posed an obstacle to the CSA. On appeal, Counties assert the trial court applied an overly narrow test for preemption, and the MMP is preempted as an obstacle to the CSA. We conclude ... those provisions do not positively conflict with the CSA, and do not pose any added obstacle to the purposes of the CSA not inherent in the distinct provisions of the exemptions from prosecution under California's laws, and therefore those limited provisions of the MMP are not preempted. We also reject San Bernardino's claim that the identification card provisions of the MMP are invalid under the California Constitution. ...

Although we conclude title 21 UCS § 903 signifies Congress's intent to maintain the power of states to elect "to 'serve as a laboratory' in the trial of 'novel social and economic experiments without risk to the rest of the country' " (*US v. Oakland Cannabis Buyers' Cooperative* (2001) 532 U.S. 483, 502 [conc. opn. of Stevens, J.]) by preserving all state laws that do not positively conflict with the CSA, we also conclude the identification laws are not preempted even if Congress had intended to preempt laws posing an obstacle to the CSA. ...

The purpose of the (federal law) is to combat recreational drug use, not to regulate a state's medical practices.

— *San Diego v NORML* (2008) 165 Cal.App.4th 798

To a large extent, federal policy is within the discretion of the President, through the Dept. of Justice and Drug Enforcement Administration. Through its tone and appointments, the Barack Obama administration has since taken several steps toward a new long-term approach, including Attorney General Holder issuing a memorandum in late 2013 for US attorneys to forgo filing charges that trigger mandatory prison sentences.

Obama policy memo on jurisdiction

Memo on Preemption

May 20, 2009

In recent years, however, notwithstanding Executive Order 13132 of August 4, 1999 (Federalism), executive departments and agencies have sometimes announced that their regulations preempt State law, including State common law, without explicit preemption by the Congress or an otherwise sufficient basis under applicable legal principles. ... the general policy of my Administration [is] that preemption of State law by executive departments and agencies should be undertaken only with full consideration of the legitimate prerogatives of the States and with a sufficient legal basis for preemption. Executive departments and agencies should be mindful that in our Federal system, the citizens of the several States have distinctive circumstances and values, and that in many instances it is appropriate for them to apply to themselves rules and principles that reflect these circumstances and values."

Cole Memo: Dept. of Justice guidance regarding marijuana enforcement

Memo for all U.S. Attorneys

August 29, 2013

[A]s several states enacted laws relating to the use of marijuana for medical purposes, the Department in recent years has focused its efforts on certain enforcement priorities that are particularly important to the federal government:

- Preventing the distribution of marijuana to minors;
- Preventing revenue from the sale of marijuana from going to criminal enterprises, gangs, and cartels;
- Preventing the diversion of marijuana from states where it is legal under state law in some form to other states;
- Preventing state-authorized marijuana activity from being used as a cover or pretext for the trafficking of other illegal drugs or other illegal activity;
- Preventing violence and the use of firearms in the cultivation and distribution of marijuana;
- Preventing drugged driving and the exacerbation of other adverse public health consequences associated with [its] use;
- Preventing the growing of marijuana on public lands and the attendant public safety and environmental dangers posed by marijuana production on public lands; and
- Preventing marijuana possession or use on federal property.

These priorities will continue to guide the Department's enforcement of the CSA against marijuana-related conduct. ...

In jurisdictions that have enacted laws legalizing marijuana in some form and that have also implemented strong and effective regulatory and enforcement systems to control the cultivation, distribution, sale, and possession of marijuana, conduct in compliance with those laws and regulations is less likely to threaten the federal priorities set forth above. Indeed, a robust system may affirmatively address those priorities by, for example, implementing effective measures to prevent diversion of marijuana outside of the regulated system and to other states, prohibiting access to marijuana by minors, and replacing an illicit marijuana trade that funds criminal enterprises with a tightly regulated market in which revenues are tracked and accounted for. In those circumstances, consistent with the traditional allocation of federal-state efforts in this area, enforcement of state law by state and local law enforcement and regulatory bodies should remain the primary means of addressing marijuana-related activity. If state enforcement efforts are not sufficiently robust to protect against the harms set forth above, the federal government may seek to challenge the regulatory structure itself in addition to continuing to bring individual enforcement actions, including criminal prosecutions, focused on those harms.

CALIFORNIA: A CASE STUDY

Proposition 215: The law of the state

In the California Constitution, when a state law conflicts with federal statute, state officials must enforce and follow state law and leave federal law to federal agencies.

An administrative agency, including an administrative agency created by the Constitution or an initiative statute, has no power: ... (c) To declare a statute unenforceable, or to refuse to enforce a statute on the basis that federal law or federal regulations prohibit the enforcement of such statute unless an appellate court has made a determination that the enforcement of such statute is prohibited by federal law or federal regulations.

— *California State Constitution* Article III, Section 3.5

Both the California and US Supreme Courts declined to block lower Court rulings that state police must return lawful medical marijuana, despite federal law.

[G]overnmental subdivisions of the state are bound by the state's laws in this instance and must return materials the state considers legally possessed. We are persuaded due process will allow nothing less. ... [W]e do not believe the federal drug laws supersede or preempt Kha's right to the return of his property... [based] on fairness principles embodied in the due process clause.

— Appeals Court, *People v. Kha* (2007) 157 Cal.App.4th 355

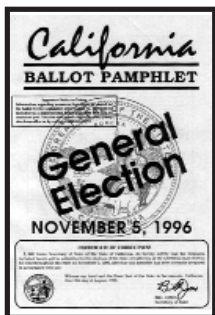
Limited immunity to cultivate and use

Proposition 215, *The Compassionate Use Act of 1996*, passed with 56% of the vote. It empowers doctors to qualify patients and primary caregivers to grow, process and/or possess cannabis. The law does not specify how much can be legally grown or possessed, nor did it authorize the legislature to set such a limit.

HS 11362.5(c): Notwithstanding any other provision of law, no physician in this state shall be punished, or denied any right or privilege, for having recommended marijuana to a patient for medical purposes.

(d) Section 11357, relating to the possession of marijuana, and Section 11358, relating to the cultivation of marijuana, shall not apply to a patient, or to a patient's primary caregiver, who possesses or cultivates marijuana for the personal medical purposes of the patient upon the written or oral recommendation or approval of a physician.

— *California Health and Safety Code*



A qualified individual charged with a small quantity of cannabis can file a demurrer against the charges. They can assert their immunity at a court preliminary or evidentiary hearing to get charges dismissed or go to trial.

The quantity must be reasonable

The amount of cannabis cultivated, possessed or transported must be reasonably related to patient needs.

The rule should be that the quantity possessed by the patient or the primary caregiver, and the form and manner in which it is possessed, should be reasonably related to the patient's current

medical needs. ... [T]ransportation may be allowed if quantity transported and method, time and distance of transportation are reasonably related to patient's current medical needs.

— Appeals Court, *People v. Trippet* (1997) 56 Cal.App.4th 1532

The cultivation statute includes processing cannabis. *People v. Bergen* (2008) held that qualified patients can legally make edibles, hash and kief but using solvents like butane to make oil is an illegal chemical extraction process; and yet, the medical oil itself is legal.

Burden of proof is on the prosecutor

Pursuant to *People v. Mower*, once a valid approval is shown, the burden shifts for the prosecutor to show that any given amount of cannabis is beyond the scope of Prop 215.

[A] defendant moving to set aside an indictment or information prior to trial based on his or her status as a qualified patient or primary caregiver may proceed under Penal Code section 995. ... [I]n view of his or her status as a qualified patient or primary caregiver, the grand jury or the magistrate should not indict or commit the defendant in the first place, but instead should bring the prosecution to an end at that point. ... [I]n light of its language and purpose, section 11362.5(d) must be interpreted to allow a defense at trial. ... As a result of the enactment of section 11362.5(d), the possession and cultivation of marijuana is no more criminal — so long as its conditions are satisfied — than the possession and acquisition of any prescription drug with a physician's prescription. ... the provision renders possession and cultivation of marijuana noncriminal under the conditions specified.

— CA Supreme Court, *People v. Mower* (2002) 28 Cal.4th 457.



Myron Mower

The physician serves as gatekeeper

The Court in *People v. Spark* held that a qualified patient need not prove that he or she is "seriously ill," and that the physician's medical opinion is not on trial.

[A]lthough the prefatory language of subdivision (b)(1)(A) of section 11362.5 contains a reference to "seriously ill Californians," that subdivision also contains a list of specified illnesses ... [I]t ends with a catchall phrase "or any other illness for which marijuana provides relief." (Ibid.) From the foregoing observations, ... we conclude that the voters of California did not intend to limit the compassionate use defense to those patients deemed by a jury to be "seriously ill." ... A physician's determination on this medical issue is not to be second-guessed by jurors who might not deem the patient's condition to be sufficiently "serious."

— Appeals Court, *People v. Spark* (2004) 121 Cal.App.4th 259

A physician's approval may be shown by *duces tecum*. The *Bearman v. Joseph* (2004) 117 Cal.App.4th 463 ruling affirmed that medical records a physician keeps in support of an approval are confidential documents.

People v. Jones (2003) 112 Cal. App.4th 341 distinguishes "approval" from "recommendation" and allows a patient to testify to having an oral authorization. *Tilehkooh* (2003) 113 Cal.App.4th 1433 allows a defendant to present a medical defense at a probation revocation hearing. *Chakos* (2007) 158 Cal.App.4th 357 requires that a police expert witness must be trained on medical use in order to opine about intent to sell.

LEGISLATURE-ADDED PROTECTIONS

Initiative protections remain intact

Proposition 215 was a California state voter initiative creating its primary medical marijuana law, HS 11362.5; so the legislature cannot modify it directly.

The Legislature. . . May amend or repeal an initiative statute by another statute that becomes effective only when approved by the electors unless the initiative statute permits amendment or repeal without their approval.

— *California Constitution*, Art. 2 sec 10(c)

Senate Bill 420 created a separate set of laws that are subject to modification and some of its key provisions are currently at risk of being restricted or overturned.

Medical Marijuana Program Act added

Senator John Vasconcellos and Assemblyman Mark Leno introduced SB 420, signed into law in 2003 as Health and Safety Code § 11362.7, et seq. It created a voluntary, confidential patient identity card system to be administered by the Department of Health Services. Its purpose was to protect against arrest and provide for patient collectives. At the last minute, low, arbitrary guideline amounts were inserted as a safe harbor from arrest. The authors explained their intention:

Fully appreciating that Proposition 215 cannot be amended by the Legislature, we have resisted all efforts to make the new identification card system created by SB 420 mandatory — at least two times our SB 420 contains specific language declaring our intent that the program is wholly voluntary. ...

We tried to incorporate NIDA guidelines, but learned that they do not really exist in any form we could incorporate; ... We chose guidelines we believe best meet our search for balance between patient's needs and *practical results in getting SB 420 signed into law*; (emphasis added).

In addition we allow localities with higher possession or cultivation amounts to retain them, and other localities to establish new guidelines which exceed what is set forth in this bill.

No jurisdiction may establish guidelines lower than those set forth in SB 420; In addition we provided individuals the option to get in excess of the guidelines upon a doctor's recommendation for amounts exceeding the cultivation and possession guidelines set in this bill. Our letter in the Assembly and Senate Journals expresses legislative intent that these guidelines are intended to be the threshold, and not a ceiling. ...

— Sen. John Vasconcellos, Assemblyman Mark Leno,

SB 420: A seismic shift in state law

The intention regarding changes in marijuana law was also laid out in the legislative introduction to SB 420.

SB 420 § 1. (b) It is the intent of the Legislature, therefore, to do all of the following: (1) ... avoid unnecessary arrest and prosecution of these individuals and provide needed guidance to law enforcement officers. (2) Promote uniform and consistent application of the act among the counties within the state.

(3) Enhance the access of patients and caregivers to medical marijuana through collective, cooperative cultivation projects.

SB 420 modified the *Health and Safety Code* to allow distribution through patient collectives. It states that only dried, processed mature female cannabis flowers

or conversion shall be considered when determining allowable quantities of medical marijuana under this section. It also created two legal categories, “qualified patients” via Prop 215 and “persons with an identification card” via SB 420.

- It gives card holders limited immunity from arrest
- It sets criminal penalties for abuse of the card system
- It allows cardholder-caregivers more than one patient in their home county or only one out of county patient.

Voluntary ID card protects from arrest

Prop 215 did not protect people from arrest, nor did it specify any limits. Under SB 420, however, a person with a valid, voluntary state-issued ID card is immune from arrest for amounts of cannabis consistent with the floor amounts, the local guideline, or the physician's note.

HS 11362.71(e) No person or designated primary caregiver in possession of a valid identification card shall be subject to arrest for possession, transportation, delivery, or cultivation of medical marijuana in an amount established pursuant to this article, unless there is reasonable cause to believe that the information contained in the card is false or falsified, the card has been obtained by means of fraud, or the person is otherwise in violation of the provisions of this article.(f) It shall not be necessary for a person to obtain an identification card in order to claim the protections of Section 11362.5. ...

Local implementation is mandatory

To ensure that patients, caregivers and collectives are protected statewide, each county is required to set up and implement the voluntary ID card system.

HS 11362.71.(b) Every county health department, or the county's designee, shall do all of the following:

- (1) Provide applications upon request to individuals seeking to join the identification card program.
- (2) Receive and process completed applications in accordance with Section 11362.72.
- (3) Maintain records of identification card programs.
- (4) Utilize protocols developed by the department pursuant to paragraph (1) of subdivision (d).
- (5) Issue identification cards developed by the department to approved applicants and designated primary caregivers.
- (c) The county board of supervisors may designate another health-related governmental or non-governmental entity or organization to perform the functions described in subdivision (b), except for an entity or organization that cultivates or distributes marijuana. ...

State agents must respect ID cards

Police are required to respect the state ID card and to not arrest patients who comply.

11362.78. A state or local law enforcement agency or officer shall not refuse to accept an identification card issued by the department unless the state or local law enforcement agency or officer has reasonable cause to believe that the information contained in the card is false or fraudulent, or the card is being used fraudulently.



Sen. John Vasconcellos

Sen. Mark Leno



Statewide quantity guidelines laid out

SB 420 set a default guideline of *six mature or 12 immature plants and eight ounces of bud or conversion* as a safe harbor from arrest.

HS 11362.77. (a) A qualified patient or primary caregiver may possess no more than eight ounces of dried marijuana per qualified patient. In addition, a qualified patient or primary caregiver may also maintain no more than six mature or 12 immature marijuana plants per qualified patient.

The protected amounts are neither scientific nor reasonable. The more cannabis a patient needs, the more vulnerable they are to arrest and prosecution. Also, the language “no more than” appears to impose a limit. The statute provides two remedies to this problem:

HS 11362.77(b) If a qualified patient or primary caregiver has a doctor’s recommendation that this quantity does not meet the qualified patient’s medical needs, the qualified patient or primary caregiver may possess an amount of marijuana consistent with the patient’s needs.

HS 11362.77(c) Counties and cities may retain or enact medical marijuana guidelines allowing qualified patients or primary caregivers to exceed the state limits set forth in subdivision (a).

A physician may note that the guideline amounts are not adequate, although the state medical board’s legal counsel discourages their specifying an amount.

Localities are empowered to adopt guidelines, as long as the amounts are not lower than the state floor. Reasonable guidelines are cost-effective, fair and compassionate. They save law enforcement resources, court time and legal expense. Adopting *Safe Access Now* garden guidelines can stop needless arrests — and save counties a lot of money.

Guidelines created a safe harbor

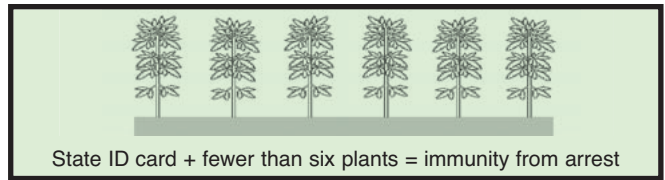
The legislature cannot override Prop 215. Two state appeals courts held the SB 420 quantity limits were unconstitutional. *People v Kelly* was taken up by the State Supreme Court, which held that the quantity limits are unconstitutional when they burden the defense, but the rest of SB 420 remains intact.

The “amount established pursuant to this article” is addressed in section 11362.77, the statute at issue in this case. That section does two things: (1) it establishes quantity limitations, and (2) it sets forth a “safe harbor” by authorizing possession of specific amounts of medical marijuana within those specific limits. ... [U]nlike the CUA, which did not immunize medical marijuana users from arrest but instead provided a limited “immunity” defense to prosecution under state law ... the MMP’s identification card system is designed to protect against unnecessary arrest. ... To the extent 11362.77 (together with its quantitative limitations) impermissibly amends the CUA by burdening a defense that would be available pursuant to that initiative statute, [it] is invalid under California Constitution article II § 10 (c). Nevertheless, it would be inappropriate to sever 11362.77 from the MMP and hence void that provision in its entirety.

— CA Supreme Court, *People v Kelly* (2010) S164830

The High Court also affirmed by inclusion both the constitutionality of medical marijuana laws and the right for qualified patients to form cannabis collectives.

“Because the ... program has no impact on the protections



provided by the CUA, we reject [San Diego, et al] Counties’ claim that those provisions are invalidated by article II, § 10(c) of the California Constitution.” (*San Diego*, *Ibid*); accord, *Hochanadal* (2009) [holding that § 11362.775 of the MMP, concerning collectives or cooperatives, does not constitute an unconstitutional amendment of the CUA].) *Kelly* (*Ibid*)

The *Wayman* case (2010) 189 Cal.App.4th 215, however, let stand a conviction for transporting an amount less than the SB 420 guidelines when a jury deemed it was greater than the patient’s current travel needs.

California: distribution via dispensary

Soon after Prop 215 passed, San Francisco dispensary operator Dennis Peron lost his Appeals Court argument that he could sell cannabis legally under its provisions, but the court did agree that some compensation is reasonable for providing caregivers.

[B]ona fide primary caregivers for section 11362.5 patients should not be precluded from receiving bona fide reimbursement for their actual expense of cultivating and furnishing marijuana[.] ... [However, i]t does not preclude prosecution under sections 11359 (possession of marijuana for sale) or 11360(a), which makes it a crime for anyone to “sell, furnish, administer, or give away” marijuana (*italics added*).

— *People v Peron* (1997) 59 Cal.App.4th 1383

Establishing collective legal immunity

SB 420 eventually established a limited statewide immunity for caregivers and patients for transportation, sales, intent to distribute and maintaining a place where medical marijuana is used or produced.

HS 11362.765. (a) Subject to the requirements of this article, the individuals specified in subdivision (b) shall not be subject, on that sole basis, to criminal liability under Section 11357, 11358, 11359, 11360, 11366, 11366.5, or 11570. However, nothing in this section shall authorize the individual to smoke or otherwise consume marijuana unless otherwise authorized by this article, nor shall anything in this section authorize any individual or group to cultivate or distribute marijuana for profit. ...

HS 11362.775. Qualified patients, persons with valid identification cards, and the designated primary caregivers of qualified patients and persons with identification cards, who associate within the State of California in order collectively or cooperatively to cultivate marijuana for medical purposes, shall not solely on the basis of that fact be subject to state criminal sanctions under § 11357, 11358, 11359, 11360, 11366, 11366.5, or 11570.

Many variations in collective access

HS11362.775 creates immunities for qualified individuals who “associate within the State of California in order collectively or cooperatively to cultivate marijuana for medical purposes,” and courts and communities are seeing a broad array of informal and formal arrangements. In general, this constitutes a group of qualified

patients and caregivers in a mutual relationship of patients, property holders and labor to obtain cannabis. In some groups everything is voluntary, others require participation in the garden, and others pay support staff. Some provide with no cash exchanged, while others operate licensed retail storefronts. Some provide delivery services. Patients pool their approvals to get bulk discounts or make sure to have a designated member for everything on hand at a given time; eg., six cardholders for 36 mature plants. Most keep documents at garden and supply sites. Unfortunately, the records that may help defend a collective under state law can trigger federal conspiracy charges. Some groups seek the approval of a government agency, but most prefer to provide member information only to present a legal defense. Most require written approvals, rather than oral, and prefer the state ID card or a verified card issued by the non-government Patient ID Center. Most require that the physician's authorization be verified.

Based on the *Trippet* decision, every qualified patient could now defend any reasonable quantity under state law — but they still might lose in court. People with valid identification cards are protected at least up to the minimal extent in HS 11362.77 eight ounces, 12 immature or six mature plants per patient, a physician's exemption or a local policy. In theory that means no arrest and no destruction of lawful medicine, but law enforcement does not always comply.

Attorney General Jerry Brown chimed in with his own 2008 *Guidelines for the Security and Non-diversion of Marijuana Grown for Medical Use*.

[A]s a practical matter [a collective] might have to organize as some form of business to carry out its activities. The collective should not purchase marijuana from, or sell to, non-members; instead, it should only provide a means for facilitating or coordinating transactions between members.

Rx for access: Over-the-counter culture

The sales issue was tested in court, and the *People v. Urziceanu* decision confirmed that collectives can sell cannabis to qualified patients with legal immunity.

[T]he Legislature also exempted those qualifying patients and primary caregivers who collectively or cooperatively cultivate marijuana for medical purposes from criminal sanctions for possession for sale, transportation or furnishing marijuana, maintaining a location for unlawfully selling, giving away, or using controlled substances, managing a location for the storage, distribution of any controlled substance for sale, and the laws declaring the use of property for these purposes a nuisance. This new law represents a dramatic change in the prohibitions on the use, distribution, and cultivation of marijuana for persons who are qualified patients or primary caregivers and fits the defense defendant attempted to present at trial. Its specific itemization of the marijuana sales law indicates it contemplates the formation and operation of medicinal marijuana cooperatives that would receive reimbursement for marijuana and the services provided in conjunction with the provision of that marijuana.

— Appeals Court, *People v. Urziceanu* (2005) 132 Cal.App.4th

The *People v. Mentch* (2008) 45 Cal.4th 274 decision strictly limits use of a 'primary caregiver' defense but

did not impede the activities of patient collectives. The landmark *People v. Hochanadal* held that:

Storefront dispensaries that qualify as 'cooperatives' or 'collectives' under the CUA [*Compassionate Use Act*, Prop 215] and MMPA [*Medical Marijuana Program Act*, Senate Bill 420], and otherwise comply with those laws, may operate legally, and defendants may have a defense at trial to the charges in this case based upon the CUA and MMPA.

— *People v. Hochanadal* (2009) 176 Cal.App.4th 997

A series of rulings clarified the status of patients. *People v. Windus* (2008) 165 Cal.App.4th 634 recognized that a lapsed physician approval may still be valid. The *Colvin* (2012) 203 Cal.App.4th 1029 court recognized that a collective's defense is based on the aggregated number of patient members. *Mitchell* held that a dispensary employee must also be a member of the collective. The *Jackson* (2012) 210 Cal.App.4th 525 decision agreed that some members participation may be limited to marijuana purchases. Both the *Anderson* (2015) Cal.App.5th F066737 and *Orlosky* (2015) Cal.App.4th D064468 decisions reinforced the validity of more casual relationships rather than formal ones.

Zoning, permits, taxes and regulation

The Appeals Court struck down a series of restrictions posed by county officials, and allowed a collective operator to sue police and public officials for damages when his lawful cannabis garden was destroyed.

[I]ndividuals have a legal right to medical marijuana that can form the basis for a civil lawsuit against law enforcement officers for money damages. ... [T]he legislature intended collective cultivation of medical marijuana would not require physical participation in the gardening process by all members of the collective, but rather would permit that some patients would be able to contribute financially, while others performed the labor and contributed the skills and "know-how."

— *Butte v. Superior Court*, (2009) Cal.App.3rd C057152

Statewide, dispensaries pay millions of dollars in taxes and fees. The Board of Equalization ruled that since medical marijuana is not prescribed, it is an over-the-counter drug subject to sales tax. Some cities have zoning and permitting policies that ban dispensaries while others collect licensing fees. Cities have created special business tax rates for cannabis.

The Cal Supreme Court in *Riverside v. Inland Empire Patients Health and Wellness Center, Inc., et al.*, upheld the authority of cities to allow or ban dispensaries. In a setback for safe local access, the CA Supreme Court in 2014 denied review of the *Maral v. Live Oak* appellate decision, which upheld the right of local governments to completely ban personal use cultivation by medical marijuana patients.

Those rulings affect civil law but do not limit a patient's defense against state criminal charges; however, they have unleashed a barrage of ordinances attacking the ability of patients to grow cannabis. The state legislature can vote to change any SB 420 provision and those changes may be for better ... or for the worse.

Living within acceptable risks

This booklet is not a substitute for legal counsel. The issues discussed in it are either factual or subject to legal interpretation and changes in law. Before undertaking the cultivation or provision of medicinal cannabis, it is always a good idea to spend the time and money to talk with a knowledgeable attorney. Even if what a person is doing is legal under state law, there is risk. A patient can still be prosecuted in state court. Primary caregivers are especially at risk because supplying medicine may be charged as distribution. Anyone should be aware how serious the offense could be, how likely they are to be held criminal, and whether they can handle its consequences. In any “drug” case, the presence of a gun can often be used to add charges and increase sentences. If a case goes federal, a five-year mandatory sentence begins at 100 plants, and 10-years at 1000 plants, so it is important to balance legal rights against the ability to endure prosecution.

In the end, you make the choice and take the risks.

Many layers make up the legal process

Here is a general idea of processes that might occur at some point to those involved with medical marijuana. It may never happen, but here is a glimpse of the entanglements that may await. Not everything here applies to every circumstance.

Talk to a knowledgeable attorney. If you don't already have an attorney, ask some questions. What do they offer? Do they know about the sections of law in this booklet? What is it going to cost? You need to balance money against freedom. Remember you can also educate your lawyer, but you have much more on the line than they do — so choose well and be ready to do some of your own leg work. If you can't afford an attorney, after arraignment you are entitled to a public defender.

Contact with law enforcement is often triggered by some minor incident, such as an officer thinking they smell cannabis during a routine traffic pullover or cannabis left out in plain sight. This is the time to exercise your right to remain silent (until you have an attorney on hand) other than to refuse to consent to a search. If the officer locates medicine, the defense should be asserted immediately, such as to say “that medicine is legal under Health and Safety Code 11362.5” and showing a medical approval or card. This is not the time to make spontaneous statements or argue your case. What you say might be different than what the officers hear or write down. The police are not there to help you; they are there to build a case against you and send you to prison, if possible. Ask if you are under arrest or if you can leave. If you can leave, do so. If you are under arrest, ask to see an attorney at once, then remain silent.

Booking is when the police transport and process a suspect after an arrest and put them in a holding cell. Remain silent.

Consider hiring an investigator or an expert witness. If your case involves more than a very small amount of cannabis, their participation can make a big difference. An expert can consult with your attorney, analyze evidence, prepare reports and testify on your behalf at a hearing or a trial. If you can't afford to pay for one, ask your attorney to file an Evidence Code section 730 *ex parte* motion for the court to pay the cost.

NAVIGATING THE LEGAL PROCESS

Plea negotiations occur when your attorney and the DA argue between getting your charges dismissed or altered and them throwing the book at you. If you can have them talking before charges are filed, so much the better. It's never too soon to bring in legal counsel to resolve the issues.

Reading of charges and bail hearing. An opportunity to make a record that it was legal medical marijuana, ask for dismissal of charges, return of property and release on your own recognizance, known as “O.R.”

Arraignment is the defendant's first hearing, when a judge asks you to enter a plea: Not guilty, guilty or *nolo contendere* (guilty). Tell the judge you need to review the police reports and will be filing a demurrer.

Demurrer. An alternative under PC 1000 to entering a plea, you assert to the judge that the record reflects that, being a qualified patient, no laws were broken and no crime occurred.

Preparations. During the discovery process, you learn the prosecutor's evidence against you and glean what areas need to be addressed. You may wish to consult with an expert witness or investigator. Plea bargaining, phase two: Ask the DA to reconsider and dismiss, think about what they want you to plead guilty to and all the consequences of your plea. Can you comply with the requirements, or is it creating future problems for you?

Mower Hearing, a PC 995 hearing or common law (speaking) motion to dismiss, is a proceeding before a judge prior to trial in which a person gets to wage a medical defense with the burden of proof beyond reasonable doubt placed upon the prosecution.

Williamson Hearing is a PC section 1000 pre-trial process for growers who are not medical users or whose approvals are invalid, allowing them to refute charges of commercial intent and get diversion based on a preponderance of the evidence.

Preliminary Hearing is where the prosecution presents to a judge witnesses and other evidence of guilt, and the defendant is able to present a defense and attempt to win a dismissal. This is an opportunity to hear the government's case and have the option of whether or not to respond. The court only requires probable cause — basically anything that raises a strong suspicion — so the judge usually holds the accused for trial. If the judge dismisses the charges, a prosecutor may be able to refile them, anyway. Even if you don't expect to win, this is where you must create the record for a rehearing at a PC 995 Hearing.

Evidentiary Hearing An EC 402 hearing asks a judge to decide what evidence is admissible. Sometimes the decisions help the defense, sometimes they hurt, but they do shape the case and may form the basis for an appeal in event of conviction. At a PC 995 hearing, a new judge is asked to review the preliminary record using a trial court's standards to drop the charges.

Jury Trial A jury of 12 (plus alternates) hears evidence, testimony and arguments, then renders a verdict of either guilty or not-proved-guilty-beyond-reasonable-doubt. At trial the burden of proof favors the defendant and the defense goal is full acquittal. There may be a hung jury, meaning that it cannot come to a unanimous decision and the charges may or may not be retried. If there is a conviction, there may be basis for an appeal.

Return of Property Hearing after dismissal or acquittal seeks to clarify that your legal property is not contraband and have the court order the return of medicine, equipment, etc.

Sentencing is after a conviction when evidence is considered and points argued to determine your sentence. Mitigating circumstances are considered in both state and federal courts.

Appeals Process seeks a judicial review of the lower court decision. Only published decisions can be cited as case law.



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For more information online

- ASA: AmericansforSafeAccess.org/
- California courts and rulings: courts.ca.gov/
- California laws and bills: Leginfo.ca.gov/
- California NORML: CANORML.org/
- Cannabis news service: TheLeafOnline.com/
- Chris Conrad: chrisconrad.com/
- Drug Reform Coordination Network: StopTheDrugWar.org/
- Drug Policy Alliance DPA: DrugPolicy.org/
- Drug War Facts: DrugWarFacts.org/
- Equal Rights Coalition: EqualRights4all.org/
- Federal laws: www4.law.cornell.edu/uscode/
- Marijuana Policy Project: MPP.org/
- Multidisciplinary Assn for Psychedelic Study: maps.org
- National Org. for Reform of Marijuana Laws: NORML.org/
- Oaksterdam University: OaksterdamUniversity.com/
- Patients Out of Time: MedicalCannabis.com/
- Safe Access Now: SafeAccessNow.net/



Conrad evaluates a garden at Cannabis College, Amsterdam, 2009

ABOUT THE AUTHOR

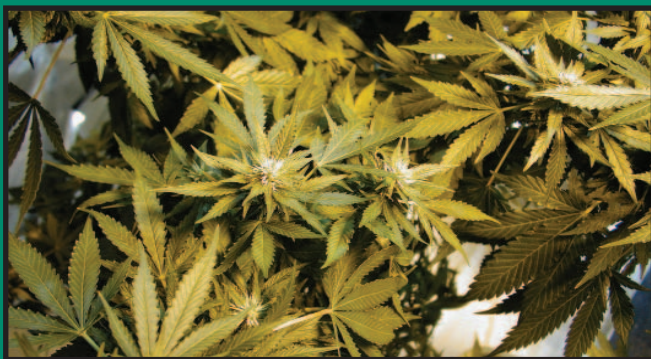
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CANNABIS YIELDS AND DOSAGE

Written by Chris Conrad, one of the world's foremost experts on cannabis hemp, *Cannabis Yields and Dosage* gives you a clear, concise and surprisingly detailed view of how medical marijuana works. It is a handy and authoritative reference book on the effects, titration and cultivation of cannabis that untangles current laws and policies.

"Safe Access Now medical marijuana dosage and garden guidelines are responsible and based on federal research. They meet the needs of a majority of patients."

— **Philip Denney, M.D.**, June 2010
Physician, court-qualified cannabis expert



"This book gives the information that police, politicians, patients and growers require to coordinate the needs of patients with the realistic output of marijuana gardens. Following the *Safe Access Now Guidelines* could save a lot of time and money for law enforcement and communities."

— **Diane Goldstein**, April 2015
Lieutenant (Ret.) Executive Board Member
Law Enforcement Against Prohibition (LEAP)

"[A] mathematical formula can use plant canopy diameter information to accurately estimate usable yield."

— ***Cannabis Yields***, US Department of Justice, NIDA and Drug Enforcement Administration, 1992. pp 10-11

"Each patient will be allowed to possess three pounds of processed marijuana per year. In order to grow that quantity we are allowing a canopy of 100 square feet."

— **Michael J. Mullins**, May 2001
Sonoma County District Attorney

"Based on various government and non-governmental sources, a patient will use up to three pounds of processed usable marijuana per year. Therefore these guidelines are intended to allow for the cultivation and use of up to three pounds of marijuana per year."

— **Paul Gallegos**, February 2003
Humboldt County District Attorney

"*Cannabis Yields and Dosage* is a required text book at Oaksterdam University due to its quick and concise look into the law, science, cultivation and current state of cannabis. I strongly recommend this read to everyone in the industry."

— **Aseem Sappal**, April 2015
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