



Medical Marijuana Update

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Medical Marijuana



Nevada Division of Public and Behavioral Health



Marijuana: What is it?

- Dry, shredded mix of leaves, flowers, stems, and seeds, usually from *Cannabis sativa* or *Cannabis indica* plant
- Both are common subspecies of the **hemp plant**, which is common throughout the world
- Contains **over 400 chemical compounds**
- **Common names:** grass, weed, pot, reefer, Mary Jane, ganja





How is Marijuana Used?

SMOKED	VAPORIZED	EATEN/DRUNK
Smoked in a pipe, bowl, cigarette	Inhaled through machine that converts active compounds into inhalable form	Consumed as ingredient in baked goods, candies, sodas
Rapid effects	Rapid effects	Takes time to reach brain, so effects are delayed
Burning marijuana releases toxins that can cause pulmonary problems	Does not release toxins that cause pulmonary problems	Does not release toxins that cause pulmonary problems



Edibles

Baked Goods



Infused Spreads, Drinks and Treats



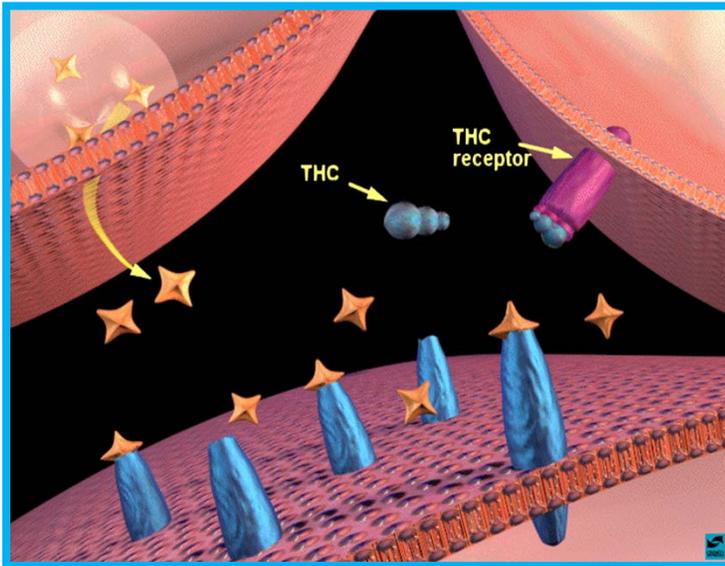


Marijuana: Other Forms

- Hashish
 - Compressed resin of cannabis plant.
 - More concentrated and potent than marijuana plant.
- Hash Oil (“Wax”)
 - Psychoactive chemicals extracted from cannabis plant with butane.
 - Three to four times as potent as marijuana plant.
- Synthetic Marijuana (“Spice”, “K2”)
 - Herbal and chemical mixtures that produce experiences similar to marijuana.
 - Dangerous products.
 - The five most common active chemicals in synthetic marijuana are now illegal in the U.S.



Marijuana: How Does it Work?



- Contains **over 60 cannabinoids**: main active chemical is Δ -9-tetrahydrocannabinol (THC).
- Stimulates “high” by triggering receptors in parts of brain that influence **pleasure, memory, thinking, concentration, coordination**.
- THC’s molecular structure is similar to that of neurotransmitters that affect cannabinoid receptors (**affect pain, appetite, vomiting reflex**).
- Effects generally **last 1-4 hours**.

SOURCES: Eddy, 2010; NIDA, 2012a, 2012b (reference list).



Marijuana Abuse/Dependence

DRUG	LIFETIME RISK OF DEPENDENCE
Nicotine	32%
Heroin	23%
Cocaine	17%
Alcohol	15%
Marijuana	9%



How Can Marijuana be a Medicine?

- Marijuana affects:
 - Pleasure/relaxation
 - Memory/thinking
 - Coordination
 - Pain Control
 - Appetite
 - Vomiting Reflex



- What medical problems do you think this would this be helpful for?



Marijuana's Medical Potential: Research Evidence

- Reduces nausea
- Stimulates appetite
- Pain relief
- Controls muscle pain, spasms
- Reduces tics (Tourette's Syndrome)
- Reduces convulsions (epilepsy)

SOURCE: Ben Amar, 2006 (reference list).



Marijuana's Medical Potential: Ongoing Clinical Trials

- Studying potential of marijuana and marijuana-based medications to treat:
 - Multiple Sclerosis
 - High Heart Rate
 - Non-Cardiac Chest Pain
 - Chronic Obstructive Pulmonary Disease
 - Sickle Cell Disease
 - Spinal Cord Injury Pain
 - Inflammatory Bowel Disease (Crohn's disease)
 - Liver Problems
 - Cancer-Related Pain
 - Brain Tumors
 - Dementia
- Many of these trials on individuals with multiple physical and/or mental health problems

SOURCE: U.S. National Institutes of Health, 2013. *ClinicalTrials.gov*.



Different Kinds of Marijuana-Based Medicine

- Botanical cannabis (plant): “Medical Marijuana”
- Synthetic THC medications available in U.S. for nausea/appetite stimulation:
 - Dronabinol (Marinol®) (FDA approved for HIV)
 - Nabilone (Cesamet®) (FDA approved for cancer; HIV off-label)
- Other medications not available in U.S.:
 - Nabiximols (Sativex®) THC/cannabidiol mouth spray for pain relief, muscle spasms; currently being investigated by FDA
 - Rimonabant (Accomplia®, Zimulti®) for treatment of obesity and nicotine dependence (selective cannabinoid receptor-1 blocker)



Medical Marijuana vs. THC Medications: Are THC Medications Better?

- Medical Marijuana is **not** FDA approved.
 - FDA approval assures that medications are effective, safe, and properly labeled.
 - FDA cannot evaluate medical marijuana as a drug since it is a plant, not a standardized medical formulation.
 - Medical marijuana is different everywhere, depending on how it is bred, under what conditions it is grown, etc.
 - No way to know if medical marijuana is pure. Can be contaminated by pesticides, mold, fungus.

SOURCE: Kleber, 2012 (reference list).



Why do People Use Medical Marijuana?

REASON FOR USE	% REPORTING REASON
Pain Relief	82.6%
To Sleep	70.6%
To Relax	55.6%
Muscle Spasms	41.3%
Anxiety	38.1%
To Stimulate Appetite	38.0%
Nausea	27.7%
Depression	26.1%

SOURCE: Reinarman et al., 2011 (reference list).



Why do People Use Medical Marijuana?

DISORDER THAT REQUIRES TREATMENT	% CITING AS REASON FOR MJ USE
Chronic Pain	58.2%
Mental Health Disorders	22.9%
Sleep Disorders	21.3%
Neurological Disorders	16.6%
HIV	1.6%
Cancer	1.5%
Glaucoma	1.3%

SOURCE: Reinarman et al., 2011 (reference list).



Medical Marijuana and HIV





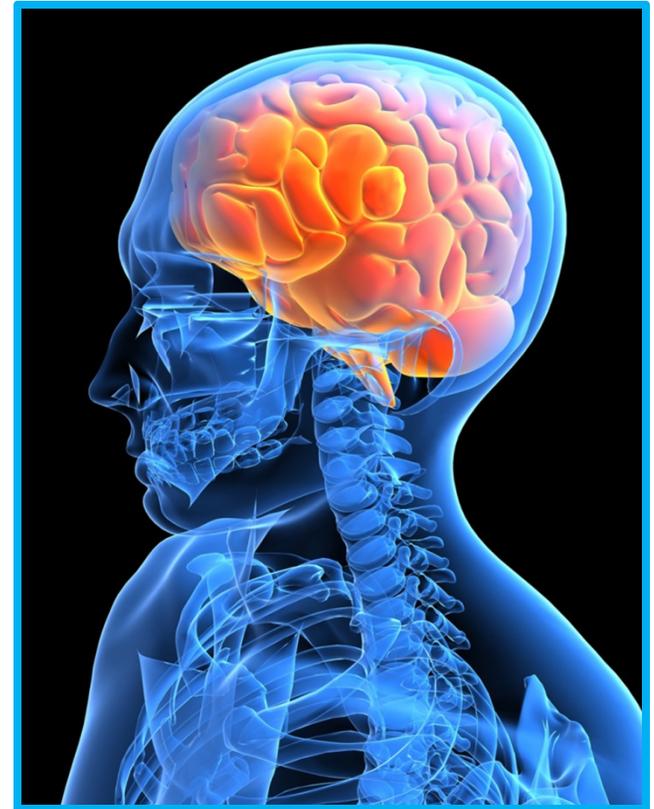
Medical Marijuana and HIV: What's the Connection?

- Marijuana can help **relieve symptoms** associated with HIV disease.
- Marijuana can help HIV+ individuals **cope** as they learn their diagnosis and **engage in treatment**.
- People living with HIV are **likely to use** medical marijuana for conditions/problems **other than HIV**.



Medical Marijuana and HIV Symptoms: Neuropathy

- Neurological complications associated with HIV disease
 - Numbness/pain in hands and feet.
 - Normal stimuli (touch) can cause pain.
 - In late stages of disease, muscle weakness.
 - Often described as burning, shooting, tingling, stabbing, or like a vise or electric shock.
- Can also be a side-effect of antiretroviral medications.





Take-Away Points

- Marijuana is a potent drug, with potentially serious physical and mental health consequences if used inappropriately.
- Unlike other medicines, marijuana has not undergone FDA testing for safety and efficacy.
- Medical Marijuana is not formally regulated by the FDA so a recommendation is made by a medical provider NOT a prescription.
- Though legal under several states' laws, medical marijuana is illegal under federal law.



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Medical Marijuana Program

Chad Westom, Bureau Chief
Bureau of Preparedness, Assurance, Inspections and Statistics
Nevada Division of Public and Behavioral Health
Department of Health and Human Services



Medical Marijuana Program

Program Description

- The Nevada Medical Marijuana Program is a state registry and licensing program. The role of the program is to administer the provisions of the Medical Use of Marijuana law for registry cardholders and establishments. NRS 453 A and NAC 453A.



Medical Marijuana Program

- Nevada Legislature passed medical marijuana legislation in 2001 allowing for individuals that meet certain qualifications to obtain a medical marijuana card.
- Nevada was a “Grow Your Own” state until 2013.
- On June 12, 2013, S.B. 374 was signed into law. This new law provides for appropriate methods of supply for medical marijuana.





Medical Marijuana Program

- With the passing of S.B. 374, medical marijuana cardholders now have a safe and secure place to purchase their medicine.
- The Nevada Medical Marijuana Program is split into 2 programs.

**Medical
Marijuana
Cardholders**

**Medical
Marijuana
Establishments
(MME)**



Medical Marijuana Program

Process to become a cardholder:

- Applicant has his or her physician sign a statement verifying the qualifying condition.
- Applicants submit an application to the Division with the appropriate fee's.
- Division preforms a background check on applicant to verify the applicant has not been convicted of an excluding felony.
- If applicant meets all the qualifications, they are issued a registry identification card.



Medical Marijuana Program

The following chronic or debilitating conditions qualify for obtaining a card:

- Acquired immune deficiency syndrome (AIDS)
- Cancer
- Glaucoma
- Post Traumatic Stress Disorder (PTSD)
- Cachexia (general physical wasting and malnutrition)
- Persistent muscle spasms (including multiple sclerosis)
- Seizure (including epilepsy)
- Severe nausea
- Severe pain *



* *Severe pain is the most common reported condition*



Medical Marijuana Program

- Pursuant to **NAC 453A.100**, if the applicant is under 18 years of age, the program requires a minor release form signed by the designated primary caregiver of the minor.
- The program currently has a number of cardholders under the age of 21.
- Medical Marijuana has been reported to reduce the severity and number of seizures in children.



Medical Marijuana Program

Medical Marijuana Establishments include:

- Independent testing laboratories
- Cultivation facilities
- Product facilities for edible marijuana products or marijuana-infused products
- Medical marijuana dispensaries.

There will be competitive application process beginning late summer for dispensary applicants.



Medical Marijuana Program

Establishments Adopted Regulations

- The Regulations were conceived with the focus on marijuana as a medicine and on public safety.



- Nevada will require that medical marijuana be tested at harvest and when it changes form to insure patients are getting safe treatment.

- Testing will only be allowed by Nevada certified independent testing laboratories.





Medical Marijuana Program

Products will have strict guidelines on labeling and packaging

- Packaged in child-resistant packaging in accordance with federal standards or the standards specified in the regulations.





Medical Marijuana Program

Packaged and labeled in a way not attractive to children



- “For use only by the person named on the label of the dispensed product. Keep out of the reach of children.” Is one of several warnings required to be included at the time of sale.



Medical Marijuana Program

Establishments Adopted Regulations(cont.)

- Establishment's location will not be within 1,000 feet of a public or private school.
- Establishment's location will not be within 300 feet of a community facility
- Revenue for this program is primarily provided by assessing fees for applications and annual program participation.





Medical Marijuana Program

Cardholder Program Statistics

- Total number of active patient cards: 5,832
- Total number of active caregiver cards: 266
- Total number of active patients cardholders by region:
 - Clark County: 4,167 (71%)
 - Washoe County: 682 (12%)
 - Balance of State: 983 (17%)

Includes data through May 5, 2014



Medical Marijuana Program

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Medical Marijuana Program

Concluding Remarks

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Questions