

Medical Marijuana, Decriminalization and the College Student

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Presentation within:
"Marijuana Use: Current Issues
and Future Directions for College
Campuses"

NASPA Mental Health and
Alcohol, Other Drug Abuse, and
Violence Prevention Conference,
Fort Worth, Texas.
January 17-19, 2013



Is this déjà vu?

**TREASURY DEPARTMENT
U.S. INTERNAL REVENUE**

**PRESCRIPTION BLANK
NATIONAL PROHIBITION ACT**

BOOK NO. **D333299** BLANK NO. **45** PERMIT NO. **J 3795**

Rx *Brandy OT*
3711 11th - ac

FOR *July 18* 1928
Joe S. Smith
1111 11th St
Phila Pa

FOR USE OF DRUGGIST OR PHARMACIST ONLY

PERMIT No. *Pa-2246*

CANCELLED *July 18 1928*
Alfred C. King
2101 11th St
Phila Pa

THIS PRESCRIPTION MUST NOT BE REFILLED

SEE REGULATIONS FOR PENALTIES IMPOSED

FORM NO. 1403. REVISED FEB. 1922

More than just medical use



What is the legal environment?

- Changing
 - More states adding medical use
 - Two states with legal non-medical use
 - Substantial Federal crackdown on dispensaries
 - Gradual acceptance of medical benefits
 - Possible Federal legislation freeing states
- Staying the same
 - Drug Free Schools and Community Act

California Example – An 18 Year Old

High Times July 2012

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Medical Marijuana

Varying Medical Marijuana Controls

Spectrum of controls



- California does not require patient registration, list of conditions based upon physician judgment.
- Arizona's new law more specific list of conditions, and requires patient registration.

FREE!

MOT Magazine

Premier Issue

Pick your condition

Conditions That Can Be Treated By Medical Marijuana



Bipolar Disorder
Autism/Aspergers
Anxiety Disorder
Panic Disorder
Agoraphobia
Genital Herpes
Herpetic infection
AIDS Related Illness
Post W.E. Ecnephallitis
Chemotherapy Convales
Shingles (Herpes Zoster)
Radiation Therapy
Viral B Hepatitis, chronic
Viral C Hepatitis, chronic
Other arthropod borne dis
Lyme Disease
Reiters Syndrome
Post Polio Syndrome
Malignant Melanoma
Other Skin Cancer
Prostate Cancer
Testicular Cancer
Adrenal Cortical Cancer
Brain malignant tumor
Glioblastoma Multiforme
Cancer, site unspecified
Lympho & reticular ca
Myeloid leukemia
Uterine cancer
Lymphoma
Graves Disease
Acquired hypothyroidism
Thyroiditis
Diabetes Adult Onset
Diabetes Insulin Depend.
Diabetes Adult Onset Unctrl
Diabetic Renal Disease
Diabetic Ophthalmic Dis
Diabetic Neuropathy
Diabetic Peripheral VascD

Hypoglycemia(s)
Lipomatosis
Arthropathy, gout
Mucopolysaccharoidosis
Porphyria
Amyloidosis
Obesity, exogenous
Obesity, morbid
Autoimmune disease
Hemophilia A
Henoch-Schoelein Purpur
Senile Dementia
Delerium Tremens
Schizophrenia(s)
Schizoaffective Disorder
Mania
Major Depression, Sgl Epi
Major Depression, Recurr
Obsessive Compulsive Disorder
Dysthymic Disorder
Neurasthenia
Writers' Cramp
Impotence, Psychogenic
Alcoholism
Opiate Dependence
Sedative Dependence
Cocaine Dependence
Amphetamine Depend
Alcohol Abuse
Tobacco Dependence
Psychogenic Hyperhidrosis
Psychogenic Pylorospas
Psychogenic Dysuria
Bruxism
Stuttering
Anorexia Nervosa
Tic disorder unspc
Tourette's Syndrome
Persistent Insomnia
Nightmares
Bulimia
Tension Headache

Psychogenic Pain
Post Traumatic Stress Dis.
Org. Mental Dis.hd Inj
Post Concussion Syndrome
Nonpsychotic Org Bra Dis.
Brain Trauma
Intermittent Explosive Dis
Trichotillomania
ADD w/o hyperactivity
ADD w hyperactivity
ADD other
Psychogenic PAT
Parkinsons Disease
Huntingtons Disease
Restless legs syndrome
Friedreich's Ataxia
Cerebellar Ataxia
Spinal mm atrophy II
Amyotrophic Lateral Sclero
Other spinal cord disease
Syringomyelia
Reflex Sympath Dystroph
Multiple Sclerosis
Other CNS demyelinating
Hemiparesis/plegia
Cerebral Palsy
Quadriplegia(s)
Paraplegia(s)
Paralysis, unspecified
Epilepsy(les)
Grand Mal Seizures
Limbic Rage Syndrome
Jacksonian Epilepsy
Migraine(s)
Migraine, Classical
Cluster Headaches
Compression of Brain
Tic Doloroux
Bell's palsy
Thoracic Outlet Synd
Carpal Tunnel Syndrome
Mononeuritis lower limb

Charcot-Marie-Tooth
Neuropathy
Muscular dystrophies
Macular Degeneration
Glaucoma
Dyslexic Amblyopia
Color Blindness
Conjunctivitis
Drusen of Optic Nerve
Optic neuritis
Strabismus & other binoc
Nystagmus, Congenital
Meniere's Disease
Tinnitus
Hypertension
Ischemic Heart Disease
Angina pectoris
Arteriosclerotic Heart Dis
Cardiac conduction disord
Paroxysmal Atrial Tach
Post Cardiotomy Syndrom
Raynaud's Disease
Thromboangiitis Obliteran
Polyarteritis Nodosa
Acute Sinusitis
Chronic Sinusitis
Chronic Obst Pulmo Dis
Emphysema
Asthma, unspecified
Pneumothorax, Spontaneo
Pulmonary Fibrosis
Cystic Fibrosis
Dentofacial anomaly pain
T.M.J Syndrome
GastroEsophageal Rfx Dis
Acute Gastritis
Gastritis
Peptic Ulcer/Dyspepsia
Colitis, Ulcerative
Pylorospasm Reflux
Regional Enteri & Crohns
Colitis
Colon diverticulitis
Constipation
Irritable Bowel Synd.
Dumping SydrPost Sur
Peritoneal pain

Hepatitis-non-viral
Pancreatitis
Nephritis/nephropathy
Ureter spasm calculus
Urethritis/Cystitis
Prostatitis
Epididymitis
Testicular torsion
Pelvic Inflammatory Dis
Endometriosis
Premenstrual Syndrome
Pain, Vaginal
Menopausal syndrome
Sturge-Weber Disease
Eczema
Pemphigus
Epidermolysis Bullosa
Erythma Multiforma
Rosacea
Psoriatic Arthritis
Psoriasis
Pruritus, pruritic
Atrophy Blanche
Alopecia
Lupus
Scleroderma
Dermatomyositis
Eosinophilia-Myalgia Syn.
Arthritis, Rheumatoid
Felty's Syndrome
Arthritis, Degenerative
Arthritis, post traumatic
Arthropathy, Degenerat
Patellar chondromalacia
Arkylosis
Multiple joints pain
Intervertebral Disk Diseas
L-S disk dis sciatic N irrit
IVDD Cerv w Myelopathy
Cervical Disk Disease
Cervicobrachial Syndrome
Lumbosacral Back Diseas
Spinal Stenosis
Lower Back Pain
Peripheral enthesopathies
Tenosynovitis
Dupuytens Contracture

Muscle Spasm
Fibromyagia/Fibrositis
Osgood-Schlatter
Tietze's Syndrome
Melorheostosis
Spondylolisthesis
Cerebral Aneurism
Scoliosis
Spina Bifida Occulta
Osteogenesis imperfecta
Ehlers Danlos Syndrom
Nail patella syndrome
Peutz-Jehgers Syndrme
Mastocytosis
Darier's Disease
Marfan syndrome
Sturge-Weber Eye Syn
Insomnia
Sleep Apnea
Chronic Fatigue Synd
Tremor/Invol Movements
Myofascial Pain Syndrme
Anorexia
Hyperventilation
Cough
Hiccups
Vomiting
Nausea
Diarrhea
Pain, Ureter
Cachexia
Vertebral disloc unspc
Whiplash
Back Sprain
Shoulder Injury Unspec
Fore Arm/Wrist/Hand
Hip, Knee, ankle
& foot injury
Motion Sickness
Anaphylactic or Reaction
Trachoria Growths



Issue 1, Sept 2010

Infant's Relief



Visit Brian's Page of Antique Weirdness
<http://www.teleport.com/~gumball/weird.html>

The Medical User

- Reinerman et al (2011) – Survey of patients at medical marijuana assessment clinics.
 - Mostly male, white, 44 and under.
 - 27.1% had some college
 - Overrepresentation of Males African Americans, Native Americans, and Employed
- Therapeutic Goals
 - Pain 82.6%
 - Improve sleep 70.7%
 - Relaxation 55.1%
 - Muscle Spasms 41.1%
 - Headaches 40.7%
 - Anxiety 37.8%
 - Appetite 37.7%
 - Nausea 27.7%
- Top Three Diagnostic Codes:
 - Back/spine/neck pain
 - Sleep disorders
 - Anxiety/Depression

The Student Medical User

- Survey of 729 undergraduates
 - 4.8% report some doctor recommended use of marijuana in past 12 months
 - 3.5% report having a current valid recommendation

Past 12 Month Marijuana Smokers

- 11.4% have valid recommendation
- 33.3% 50+ smokers have valid recommendation

Card Holders

- 94.2% have had card for 3 or fewer years
- Of 19 students who reported medical reasons:
 - 86.9% for anxiety, PTSD, depression, insomnia or ADD
 - 50% Pain management or nausea
- 50% purchase marijuana weekly, 66.7% report smoking before noon, and 84.8% smoke daily or almost daily.
- 24% used alcohol currently with their marijuana the last time they smoked.
- 58.9% drove while under the influence of marijuana in the past month
- 60.8% began using marijuana at age 16 or younger.

Indirect Measure: Analysis of National Ads

- Sampled 100 of 335 ads placed in major weekly newspapers from all states with medical marijuana laws as of June 2010.
- Coded them using a variety of methods: Trained coders and Amazon Mechanical Turk
- Found three main themes:
 - Traditional medicine (15.6%)
 - Holistic/alternative medicine (30.8%)
 - Counterculture/recreation (16.8%)
 - Mixed (36.8%)
- Varies substantially by state.

CA Marijuana Advertising

Go Go (213) 915-5555

Top Shelf Kushes



H+
PATIENTS ASSOCIATION

4101 La Jolla Village Drive, Suite C
San Diego, CA, 92120
619.594.1111

**Your Leader In
Compassionately
Priced Medicine**

\$55
CAP
ON ALL
TOP SHELF
We
are your
One Stop
Shop

CLONES
CONCENTRATES
NEW MEMBER GIFTS
REFERRAL GIFTS
HAPPY HOUR 4-5 DAILY

Sat. Oct. 8th

\$25
1/8's
\$1 From Every
Donation Goes To
JOSIE & KAREN
CURE FOR CANCER

Limited Strains!
Limit 1 Per Member
WHILE SUPPLIES LAST
*Only 1 Discount Applies
Per Transaction*

Go Go
(213) 915-5555

Top Shelf Kushes

\$20-\$45 1/8ths
\$10-\$23 half 1/8ths

**No Ounce
over \$320**


OPEN DAILY
from 11am-9pm

We are located in Downtown LA
Directly off HWY 10
Free Private Parking

go@go.com 915-5555@gmail.com



Not just newspaper ads



[Home](#)
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Marijuana Strain for ADHD

DECEMBER 27, 2012 BY JEANDRE GERBER

In the US it is speculated that 3%-5% of all children suffer from ADHD/ADD. Recent studies have shown that cannabis is useful in treating ADHD. We'll go a step further into checking out which [marijuana strain](#) will provide greater relief of ADHD symptoms.

ADHD/ADD explained – A popular theory on this condition states that 70% of your brain is used to regulate 30% of the sensory input. In other words you require more brain power to process the stimuli that you perceive; sight, smell, touch, taste, sound. The lack of dopamine in the brain doesn't allow the patient to focus on one of these aspects without being distracted by the disorder.

- Marijuana and ADHD** – Before we dive deeper into the right marijuana strain for ADHD we'll first discuss the relationship between cannabis and ADHD. The current medicine used to treat ADHD/ADD is based on amphetamines such as Ritalin. The main function that the amphetamines bring is releasing dopamine in the brain but is also accompanied by some serious side effects such as abdominal pain, lack of appetite, restlessness, insomnia and more. Cannabis has proven to also release dopamine within the brain without causing any of these side effects. People using cannabis for their ADHD have seen significant improvement in concentration, students who suffer from ADHD have noted that their grades increase dramatically.
- Marijuana Strain for ADHD** – The best strain for ADD/ADHD would be a hybrid 50%-50% or slightly dominant sativa strain. The reason being that while the indica will aid in calming down the hyperactivity, the sativa aspect of the marijuana strain will allow the patient to feel awake as opposed to being sedated. We do not recommend a full 100% sativa strain due to the hyperactivity aspect of the disorder. Thus a counterbalance in Indica is recommended. Something like [Raspberry Cough](#) or [Cinderella 99](#) should be a perfect strain.

The current medicine used for ADHD/ADD doesn't live up to what it promises. Cannabis will do much more for the patient than Ritalin could ever do and will not cause any harmful side effects. Any [Sativa Dominant Hybrid](#) marijuana strain would do in treating ADHD/ADD.

Changing Environment: Advertising

Crackdown effects

- Dispensaries are just about gone
- Ads for Delivery Service persist
- Physician ads persist

Persisting questions

- College newspaper perspectives
- Are these ads reflective, persuasive, neither or both

Standardization: Medical

“Cannabis as an herbal medicine poses serious challenges to modern medicine, which operates according to the ‘single compound, single target’ paradigm of pharmacology” (p. 660).

- Hazekamp, A., & Fisdick, J. T. (2012). Cannabis - from cultivar to chemovar. *Drug Testing and Analysis*, 4(7-8), 660–667

Hear about this one?: Myths on Campus

Medical Marijuana Use Reduces Traffic Deaths, Acts As Substitute For Alcohol Consumption, Study Says



First Posted: 11/30/11 04:07 PM ET | Updated: 12/1/11 01:17 PM ET

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A good deal of time, money, and energy has been spent on the issue of drinking and driving. For all the

It looks like good science:
But it's not!

estimating a model that includes both state and year fixed effects. Specifically, the baseline estimating equation is:

$$(1) \quad \ln(Fatalities\ Total_{st}) = \beta_0 + \beta_1 MML_{st} + X_{st}\beta_2 + v_s + w_t + \varepsilon_{st}$$

where s indexes states and t indexes years.²¹ The variable MML_{st} indicates whether a MML was in effect in state s and year t , and β_1 , the coefficient of interest, represents the marginal effect of legalizing medical marijuana. In alternative specifications we replace *Fatalities Total* _{st} with the remaining dependent variables listed in Table 5.

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Roadside Breath and Saliva Survey of

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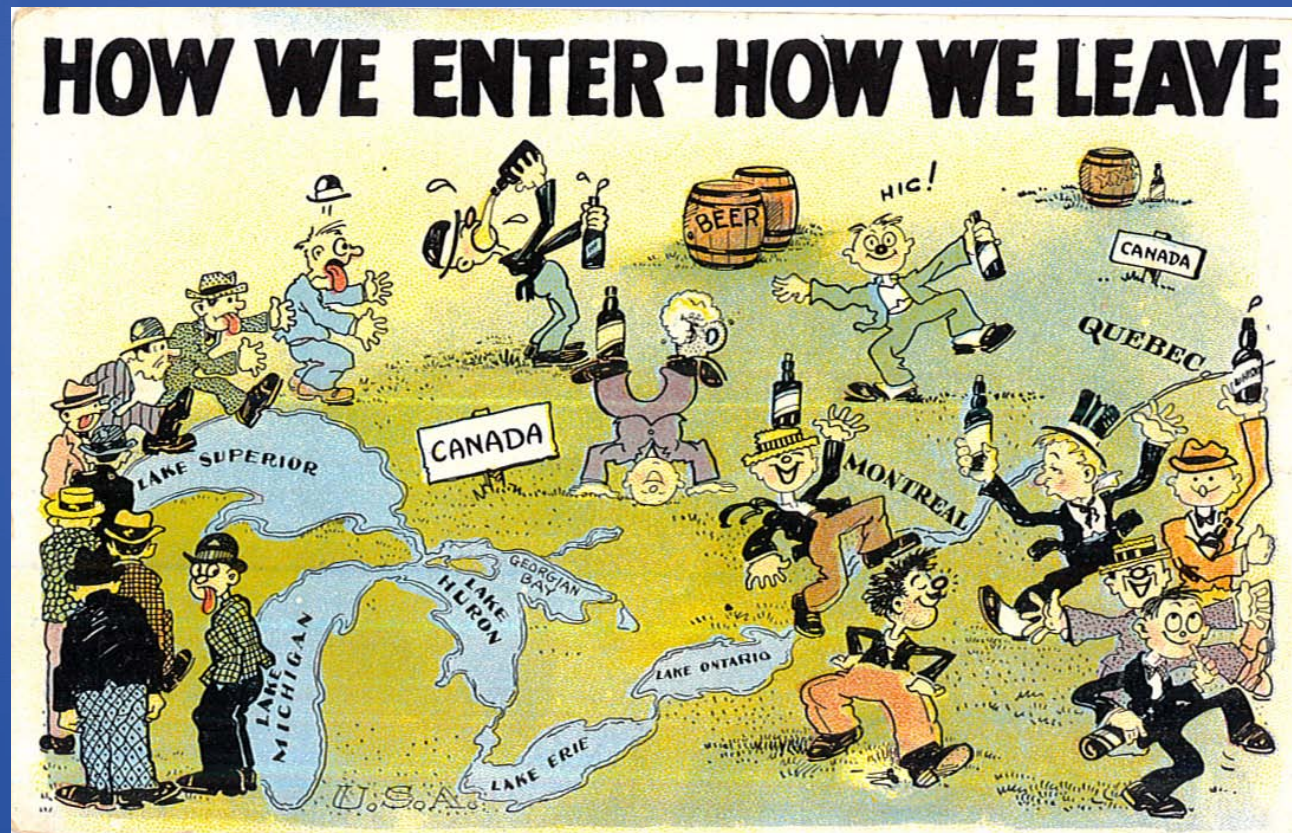
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Standardization: Border Towns



Questions that arise

Research issues

- Definitions of medical vs. recreational use: The Viagra problem
- Determining “legitimate” recommendations.
- Mixed use

Campus Policy

- Court decisions can change compliance requirements:
 - ADA type concerns
 - Legislative actions both federal and state
 - NCAA testing