

CANNABINOID CHRONICLES



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Medical Cannabis News and Information

The Netherlands - Cannabis Tea Not Efficient Mode Of Ingestion

The users of medicinal cannabis in The Netherlands are advised by the Office of Medicinal Cannabis to prepare cannabis tea as follows: "add 1.0 gram of cannabis to 1.0 Litre of boiling water and let simmer for 15 min. Filter out solid parts by using a common tea-sieve. Tea can be consumed immediately, or stored in a closed bottle in a refrigerator for up to 5 days."

Researchers of the University of Leiden investigated the cannabinoid composition of this tea. They found that tea prepared with different batches of cannabis with an overall THC concentration (phenolic THC + THC acid) of 19.7% showed only a moderate variation in THC concentrations of 15%. The mean concentration of THC was 10 mg per litre and of THC acid (THCA) 43 mg/L. In the plant THC is mainly present as THCA and is converted into the psychotropic THC upon heating (baking, smoking, boiling). Since with cooking of water only a relatively low temperature of 100 degrees Celsius is reached only a small part of THCA was transformed into THC, resulting in an availability of only about 5% phenolic THC of the whole THC (10 mg of 197 mg THC acid + THC). The authors also found, that the THC concentration rapidly declined during storage, which was largely prevented by the addition of coffee creamer powder.

Source: Source: Hazekamp A, et al. Cannabis tea revisited: A systematic evaluation of the cannabinoid composition of cannabis tea. J Ethnopharmacol 2007 May 24

photo by Bruce Dean



Director's Message

Constitutional Challenge and Israeli Medical Cannabis

The July/August session of our constitutional challenge of the federal medical cannabis policy and program is now behind us, and it was a very productive few couple of weeks. The Canadian AIDS Society's Lynne Belle-Isle once again took the stand, illustrating the problems of access and supply through Health Canada's program. This was followed by a few days of testimony by me, during which time I went over the preliminary results of an ongoing Quality Assessment survey of the Marijuana Medical Access Division. This was followed by the touching testimony of a few of our long-time members, many of whom are currently cut-off from accessing the federal medical cannabis supply for non-payment of funds. During the second week of testimony, Senator Pierre-Claude Nolin (former Chair of the Senate Special Committee on Illegal Drugs) testified on our behalf, illustrating the ongoing problems with the federal program, and urging Health Canada to work more cooperatively with compassion clubs. Senator Nolin's testimony was followed by Deputy Police Chief Bill Naughton, who stated that his police department has never received a single complaint about the VICs, and that our good work was not a priority for the Victoria Police Department. The week closed with the cross-examination of Eric Nash, a certified organic producer of medical cannabis who would like to supply more patients than the current regulations allow. Overall, it was a very moving and compelling few weeks of testimony, and sets the stage for another 7 days scheduled for October (4th and 5th, and 15th - 19th); please come out if you can!!

In other news, my recent consultation with the administrators in charge of the Israeli medical cannabis program went extremely well, and Rick Doblin (MAPS) and I were able to put forward the patient-centered concept focused on the non-profit production and distribution of multiple strains of organically grown cannabis. With the Israeli's taking such a progressive, pragmatic approach to medical cannabis access, it wouldn't surprise me at all if within 18-24 months they become world leaders in this important area of public and personal health. The VICs will keep you posted on either development, so please stay tuned!

Philippe Lucas

VICS 8TH ANNUAL BBQ

There's no such thing as a free lunch, unless you're a VICS member (or friend) and it's the annual BBQ/birthday bash. Please come out to celebrate the VICS 8th birthday in Mt. Douglas Park (at the lower access point near the washrooms) on September 30 from 12 noon to 3:00 pm.

Science: THC and cannabis cause an increase in caloric intake and body weight in HIV-positive cannabis users

According to a clinical study at the New York State Psychiatric Institute with 10 HIV-positive cannabis users THC (dronabinol) and cannabis dose-dependently increased daily caloric intake and body weight. All patients completed two 16-day phases at the institute. All received THC capsules (5 and 10 mg) and cannabis cigarettes (2% and 3.9% THC) 4 times daily for 4 days. Only one drug was active per day. All active phases were separated by 4 days of placebo administration. Cognitive performance were measured using a task battery measuring various aspects of learning, memory, vigilance and psychomotor ability.

Caloric intake was mainly increased by increasing the number of eating occasions. Increase of body weight within 4 days was significant for the higher strength cannabis (four times 3.9% THC) and the higher dose of oral THC (four times 10 mg) with 1.2 kg on THC and 1.1 kg on cannabis. THC and cannabis produced significant psychic effects, except for low-dose THC (5 mg). These effects were rated positively with little evidence of discomfort and no impairment of cognitive performance. Effects of cannabis cigarettes and oral THC were comparable, except that only cannabis (3.9% THC) improved sleep.

Researchers concluded that both oral THC and smoked cannabis "were well tolerated and produced substantial and comparable increases in food intake."

Source: Haney M, et al. Dronabinol and marijuana in HIV-positive marijuana smokers: caloric intake, mood, and sleep. *J Acquir Immune Defic Syndr* 2007 Jun 21

Science: Epilepsy

Scientists of the Departments of Neurology of the New York University reported about a 45-year-old man with cerebral palsy and epilepsy who showed marked improvement with the use of cannabis. They write that "this case supports other anecdotal data suggesting that marijuana use may be a beneficial adjunctive treatment in some patients with epilepsy."

Source: Mortati K, et al. *Rev Neurol Dis* 2007;4(2):103-6.

Science: Violence

According to the Centre for Addictions Research of British Columbia, Canada, the use of alcohol and cocaine played a significant role in explaining the occurrence of violence, while cannabis use was without significant influence. Groups of subjects in treatment for a primary problem with cocaine (n=300), cannabis (n=128), alcohol (n=110), other drugs (33), tobacco (n=249) or gambling (n=199) completed a self-administered questionnaire on this issue.

Source: Macdonald S, et al. *Addict Behav*, 13 July 2007

Science: Cancer

British researchers demonstrated that THC induced apoptosis (programmed cell death) in cancer cells of tumours of the colon. They concluded that the use of THC may represent a novel strategy for therapy of cancer of the colon.

Source: Greenhough A, et al. *Int J Cancer* 2007 Jun 21

Science: Multiple sclerosis

The endocannabinoid system was found to be dysregulated in multiple sclerosis. The concentration of anandamide was increased in the cerebrospinal fluid and lymphocytes (a kind of white blood cells) of MS patients. The higher concentrations in lymphocytes were associated with an increased synthesis and reduced degradation of anandamide. These alterations may be regarded as an attempt of the body to counteract the disease.

Source: Centonze D, et al. *Brain* 2007 Jul 11

Science: Pain

Researchers at Novartis in Basel, Switzerland, developed a CB1 receptor agonist with the name naphthalen-1-yl-(4-pentyloxynaphthalen-1-yl)methanone, with limited brain penetration. Thus, the substance, which also binds to the CB2 receptor may have a potential of the treatment of pain without causing relevant psychological effects.

Source: Dziadulewicz EK, et al. *J Med Chem* 2007 Jul 14

Science: THC and Kaposi's sarcoma

In cell experiments scientists of the Harvard University in Boston, USA, found that the presence of THC in low concentrations, which are found in medical users of THC and cannabis, increased the infection with Kaposi's sarcoma-associated herpesvirus (KSHV) in endothelial cells. THC, in a dose-dependent manner, also promoted other steps that lead to the development of Kaposi's sarcoma, a type of cancer mainly found in AIDS patients. Researchers concluded that "use of cannabinoids may place individuals at greater risk for the development and progression of Kaposi's sarcoma." They point out that further epidemiological studies and clinical research are needed to clarify the safety of THC.

Source: Zhang X, et al. *Cancer Res* 2007;67:7230-7

Science: Huntington's disease

In animal studies cannabidiol (CBD) protected against damage of the certain brain region (striatum) by a chemical. Researchers concluded that CBD provides neuroprotection against damage of striatum, which may be relevant for Huntington's disease, a disorder characterized by the loss of nerve cells of the striatum.

Source: Sagredo O, et al. *Eur J Neurosci*, 2 August 2007

Science: Osteoporosis

In experimental studies it was shown that the CB1 receptor regulates bone formation. Enhanced bone formation and improved fracture healing was associated with a high level of the endocannabinoid 2-arachidonoylglycerol (2-AG). This enhancement was absent in mice without CB1 receptors. This observation can help to develop treatments for osteoporosis and disturbed fracture healing.

Source: Tam J, et al. *FASEB J*. 2007 Aug 17

Science: Bipolar disorder

A case report of a patient with bipolar disorder was presented. Mood data was prospectively collected over two years of total substance abstinence and two years of extreme cannabis use. Cannabis use did not alter the total number of days of abnormal mood. However, cannabis was associated with an increase in the number of manic days and a decrease in the number of depressed days.

Source: El-Mallakh RS and Brown C. *J Psychoactive Drugs* 2007;39(2):201-2

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New Mexico Backs Down On Cultivation

New Mexico could have been the first US state to build a centralized production and distribution system for medical marijuana, but the Health Department doesn't want to take the risk of butting up against federal law. Upon advice from Attorney General G. King, Health Secretary Dr. Alfredo Vigil said the 2nd phase of the new state law that would have made that happen won't be pursued.

"The Department of Health will not subject its employees to potential federal prosecution, and therefore will not distribute or produce medical marijuana," Vigil said in a written statement Wednesday.

That decision appears to leave patients who participate in the state's Medical Cannabis Program with three options: grow their own cannabis plants; purchase it on the black market; or get a prescription for the legal, synthetic form of tetrahydrocannabinol.

But Reena Szczepanski, director of Drug Policy Alliance New Mexico - a group that lobbied for the law - insists there are other solutions, if only King would provide "more meaningful" legal direction.

"I hope they aren't ruling out any producing or distributing by other entities," she said. "We're not expecting department employees to risk prosecution themselves. We ask them for a serious conversation with the AG about other possibilities."

The Health Department could set up a mechanism for private companies or groups of volunteers to take on production and distribution. She envisions the state putting out a formal request for proposals, selecting a vendor and then forwarding the plans to a federal judge or federal agency for final approval.

For years, advocates have worked on getting a medical marijuana law passed in New Mexico. When New Mexico became the 12th state to enact such a law, it took an approach that hadn't been tried elsewhere.

"That was, I thought, a bit bold and slightly risky," Abrams said of the centralized distribution system. He said the city of San Francisco considered such a system, but the idea never got off the ground because it flies in the face of federal law.

Szczepanski said New Mexico took this approach, however, because lawmakers were adamant they didn't want to create a system that would give business to drug dealers. And advocates wanted New Mexico to adopt a pharmaceutical model, so the purity of the cannabis would be consistent, rather than replicating California's storefront model, she added.

Tom Woods said he doesn't have an easy time obtaining cannabis. "It's difficult for me, so I was hoping this Phase 2 (of the New Mexico medical marijuana law) would come to fruition," he said.

In 1991, he had a cancerous tumor the size of a tennis ball removed from his brain. Afterward, he found himself sitting in a stupor with a blank stare, having difficulty being productive or keeping up with conversations. He tried Ritalin and antidepressants, but neither helped, he said. A few years ago, he resorted to marijuana and found the stimulation it gave his brain made him more alert and productive.

"It's pathetic that it's being treated like this," he said. Woods said he had planned to apply to the state's Medical Cannabis Program, but he doesn't know what he'll do now without a safe system of access.

The new law took effect July 1, and so far, the Health Department has approved 30 out of 66 applications from patients. The top three conditions are multiple sclerosis, cancer and spinal cord injuries with intractable spasticity.

Source: New Mexican, The (Santa Fe, NM), 15 Aug 2007, www.mapinc.org/drugnews/v07/n965/a01.html

Prisons Need Needle Exchange Program

There are few votes to be had in looking out for the interests of prison inmates. But in light of new research, it has never been clearer that politicians are not just endangering criminals with their refusal to do so but also costing the rest of the population. Official policy is to keep illegal drugs out of jails. This is an admirable goal, but it does not appear to be working. Whether through employees or visitors, narcotics have a way of making it into prisons. And when inmates use them, they do so with an even higher risk than drug users on the outside.

According to a new study published in the Canadian Medical Association Journal, a 2.1% rate of HIV infection among Ontario adult inmates surveyed in 2003-04 was 11 times higher than that of the general population. Ontario prisoners' rate of infection with hepatitis C was 17.6%, 22 times higher than on the outside. The results were even more alarming in Quebec, where the HIV rate was 19 times higher than in the general population and the rate of hepatitis C 23 times higher.

In the Quebec portion of the study, more than 90% of those infected with HIV or hepatitis C reported a past history of injection use. Concluding "injection drug use was by far the most important risk factor for both HIV and HCV infections," its authors recommended "harm-reduction measures" alongside prevention, disease testing and education.

Peter Ford, a doctor and researcher who contributed to the Ontario study, made the outright case for needle exchanges. "It's not rocket science to figure out that if you clean up the way somebody's doing something ... then you're going to save people transmitting infection, particularly hepatitis," he told The Globe and Mail. "It's even less rocket science to figure out that if you actually issue clean syringes, as opposed to the one the whole range is sharing, you're going to get a lot less transmission of disease."

But even given the new research, government officials continue to reject such a program. Some suggest that funds are better spent elsewhere; others say the needles pose a threat because they can be used as weapons by inmates.

Both of these excuses are nonsense. While it is true that needles can be used to assault guards and other prisoners, the reality is that they are in jails regardless; the only question is whether they are clean or dirty. As for the cost, it is far more expensive to pay for disease treatment than it is to administer a simple needle-exchange program - and that doesn't even take into account the social costs. Those who find it hard to muster sympathy for drug-addicted criminals who infect each other would do well to consider that most of them are not in jail forever, and that when they get out many will spread their infections further.

Source: Globe and Mail, 07 Aug 2007, www.mapinc.org/drugnews/v07/n942/a04.html

DEFINITIONS

arcane a. understood by few; mysterious. [French, or from Latin *arcanus* (*arcere* shut up, from *arca* chest)] (The Oxford English Dictionary Online, www.askoxford.com)

pistil n. Botany, the female organs of a flower, comprising the stigma, style, and ovary. [from French *pistile* or from Latin *pistillum* pestle] (ibid.)

spurious a. 1. false or fake. 2. (of a line of reasoning) apparently but not actually valid. Hence spuriousLY adv. spuriousNESS n. [Latin *spurius* false] (ibid.)

tenuous a. 1. very slight or insubstantial: a tenuous distinction. 2. very slender or fine. Hence tenuousLY adv. tenuousNESS n. [Latin *tenuis* thin] (ibid.)

Hemp Gains Popularity

The world's biggest factory for processing hemp - claimed to be the "green" building material of the future - is being planned for a Suffolk, England town. When running at full capacity the plant will employ 35 people and enable operator, Hemcore Limited (www.hemcore.co.uk), the UK's only commercial hemp processing company, to process 50,000 tonnes of hemp straw a year.

Mike Duckett, Managing Director of Hemcore, said "Our new facility is great news for the environment and the region's farmers, more and more of whom are already reaping the benefits of growing hemp."

One of the companies products is hemcrete, made from hemp and lime. Hemcrete is sustainable, lightweight, a good insulator, airtight, easy to use, and fire and pest resistant. The material also absorbs carbon dioxide, one of the greenhouse gases. Each house constructed with hemcrete walls, roof and floors could reduce carbon dioxide emissions by 50 tonnes. It costs roughly the same as conventional building materials and has been used to construct homes, office space, a warehouse and a theatre in Europe.

Use of hemp-based products would help countries to reduce its carbon emissions. Emerging markets included plastics reinforcement, nutrition, clothing and horticulture, he added.

Down in Oregon, Ashland resident Andy Kerr, who is a board member of the North American Hemp Industry Council (www.naihc.org), is trying to help preserve old growth timber and see hemp play a larger role as a building material.

In April, Kerr testified before the state US Senate's committee on Environment and Natural Resource Committee. He is also a proponent of a bill that has died several times in the state legislature to legalize growing hemp.

"Under the law it is legal to possess and you can import it," he said. "There is a customs code, but you can't grow it. The DEA (Drug Enforcement Agency) thinks it is marijuana." The reason hemp legalization efforts often fail is because hemp often gets misidentified as a drug. A bill similar to Oregon's passed in California legislature but Governor Schwarzenegger vetoed it, and a similar bill recently passed in North Dakota.

Back in Kingston, Ont, a recent symposium wrapped up on Aug 16th that brought together the researchers and industry leaders who are using 'biofibres' to foster new developments. Fuelled by a growing demand for environmentally friendly buildings, hemp, wheat, flax and other grains are now being touted as emerging raw materials in the construction industry.

Sources: East Anglian Daily Times (UK), 8 Aug 2007, www.mapinc.org/drugnews/v07/n945/a05.html. Ashland Daily Tidings (OR), 18 Aug 2007, www.mapinc.org/drugnews/v07/n979/a03.html. Kingston Whig-Standard, 17 Aug 2007, www.mapinc.org/drugnews/v07/n978/a06.html

Testing Shit For Shit

US researchers have figured out how to give an entire community a drug test using just a teaspoon (5 mL) of wastewater from a city's sewer plant. Oregon State University scientists tested 10 unnamed American cities for remnants of drugs, both legal and illegal, from wastewater streams. They were able to show that they could get a good snapshot of what people are taking.

The science behind the testing is simple. Almost every drug - legal and illicit - that people take leaves the body. That waste goes into toilets and then into wastewater treatment plants. (not in Victoria) In the study presented August 21, untreated sewage water from each of the cities was tested for 15 different drugs. She said that one fairly affluent community scored low for illicit drugs except for cocaine. Cocaine and Ecstasy tended to peak on weekends and drop on weekdays, she said, while methamphetamine and prescription drugs were steady throughout the week.

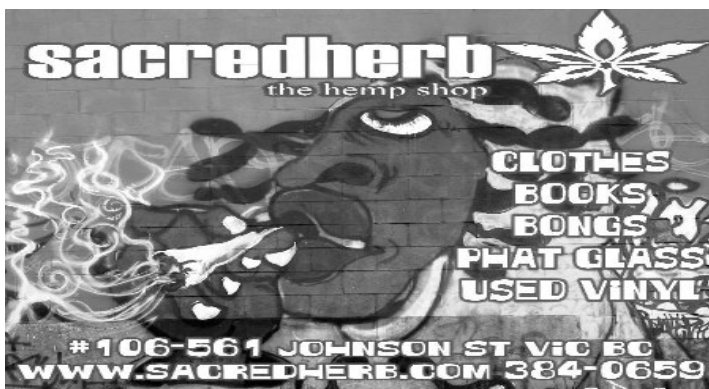
One of the early results of the new study showed big differences in methamphetamine use city to city. One urban area with a gambling industry had methamphetamine levels more than five times higher than other cities. Yet methamphetamine levels were virtually nonexistent in some smaller Midwestern locales, said Jennifer Field, the lead researcher and a professor of environmental toxicology at Oregon State.

The ingredient Americans consume and excrete the most is caffeine, Field said.

Field said her study suggests that a key tool currently used by drug abuse researchers - self-reported drug questionnaires - underestimates drug use.

The US Environmental Protection Agency is already looking at the problem of potential harm to waterways from legal drugs.

Source: Charlotte Observer (NC), Aug 22 2007, www.mapinc.org/drugnews/v07/n982/a02.html



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MS Society

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HepC BC

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Canadians for Safe Access

<http://www.safeaccess.ca>

Disabled Rights Alliance

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1-877-852-5110 (toll free)

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BCCCS

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<http://thecompassionclub.org>

DrugSense

<http://www.drugsense.org>

Action Committee of People with Disabilities

383-4105

Canadian Cannabis Coalition

www.cannabiscoalition.ca

Canada Medical Marijuana

www.medicalmarijuana.ca

Media Awareness Project

<http://www.mapinc.org>

Drug Policy Alliance

<http://www.drugpolicy.org>

Health Canada

http://www.hc-sc.gc.ca/dhp-mpps/marihuana/index_e.html
1-866-337-7705

Norml Canada

<http://www.normlcanada.org>

Cannabis Health

www.cannabishealth.com

ICRS

<http://cannabinoidsociety.org>

CannabisLinks.ca

"Love your enemy - it will scare the hell out of them."

- Mark Twain (1835 – 1910)