



Vol. 9, Issue 5  
June 2017

# CANNABINOID CHRONICLES

## Medical Cannabis News and Information

### **MD Says Cannabis Can Reduce Opioid Dependency**

Dr. Caroline MacCallum wants doctors to know that cannabis "isn't the taboo medicine" they might think it is. Not only has she used it successfully to treat more than 50 conditions, she has also seen how it has helped her patients stop using prescription opioids.

MacCallum, a specialist in complex pain and cannabinoid medicine, is the medical director at Green Leaf Clinic in Langley, BC, where she assesses patients for their eligibility for Canada's Access to Cannabis for Medical Purposes Regulations (ACMPR) program.

Besides being a former pharmacist who has spoken publicly on the subject of the plant's medical applications since 2015, MacCallum is also a clinical instructor in UBC's faculty of medicine and pharmaceutical sciences.

A vocal advocate who, along with other physicians, recently wrote to the College of Physicians and Surgeons of British Columbia to challenge its stance on medical cannabis, MacCallum wasn't always aware of cannabis' potential for treatment.

Working at a number of pain clinics, she got discouraged by not getting hoped-for results for her patients. As her patients challenged her to consider cannabis, MacCallum started exploring.

Now an expert in the field, MacCallum is working with a number of different groups to create hospital policies so when patients are admitted for care, they're able to use their cannabis in oil form, on-site. It's just one of the things she is trying to do to help ensure that cannabis is viewed by medical professionals as legitimate medicine. She will also supplement a patient with dried flower if used with a vaporizer.

Above and beyond its ability to treat both pain and symptoms, MacCallum has seen firsthand how cannabis can help her patients reduce- and, in many cases,

eliminate - their reliance on prescription opioids.

Referencing pre-publication results from an extensive survey of Canadian medical-cannabis patients, MacCallum said many patients are able to stop using opioids after cannabis is introduced.

"I'm able to taper patients off of these drugs and get them less constipated, less confused, and feeling better," she said, adding that cannabis also helps in treating the symptoms of opioid withdrawal.

A study written by Philippe Lucas, and using data from the survey, found that 69% of surveyed patients used cannabis as a replacement for prescription drugs. Among patients who reported substituting for opioids specifically, 60% of opioids being prescribed were successfully reduced by 100%, while 18.4% were reduced by 75%.

Despite the success that MacCallum's patients have had, the College of Physicians and Surgeons continues to tell doctors in B.C. that there are "few reliable published studies" that discuss the medical benefits of cannabis. MacCallum, however, said it's the opposite: the college is the one without the evidence to support its statements.

"If they say it's because of public health, they're missing a huge opportunity for us to deal with the opioid issues that we're having. I firmly believe this is the solution to the opioid crisis, and if I keep yelling loud enough, it will eventually be heard."

**Source:** [www.straight.com/life/903671/physician-says-using-cannabis-treat-pain-can-reduce-opioid-dependency](http://www.straight.com/life/903671/physician-says-using-cannabis-treat-pain-can-reduce-opioid-dependency)



**Image:** <https://www.greenrushdaily.com/>

# **International Association for Cannabinoid Medicines (IACM) Bulletin**

## ***Human: Cannabis use is associated with a lower prevalence of non-alcoholic fatty liver disease according to a large study***

In a population-based, case-control study with 5,950,391 patients of the 2014 Healthcare Cost and Utilization Project (HCUP), cannabis use was associated with a significantly reduced prevalence of non-alcoholic fatty liver disease. This is the result of research by scientists from several scientific institutions in the USA and Canada.

After identifying patients with non-alcoholic fatty liver disease (1% of all patients), they identified three exposure groups: non-cannabis users (98.0%), non-dependent cannabis users (1.7%), and dependent cannabis users (0.2%). They found an about 20% (adjusted odds ratio: 0.82) reduced prevalence of the disease in all cannabis users compared to non-users. The effect was even stronger in dependent users with a reduction by 52% (adjusted odds ratio: 0.49).

Source: <https://www.ncbi.nlm.nih.gov/pubmed/28441459>

## ***Human: The medical use of cannabis may reduce medical costs of Medicaid in the USA by about one billion dollars***

Using quarterly data on Medicaid prescriptions in the period 2007-2014, researchers of the University of Georgia in Athens, USA, tested the association between medical cannabis laws and the average number of prescriptions filled by Medicaid beneficiaries.

They found that the use of prescription drugs was lower in states with medical cannabis laws than in states without such laws in five of the nine broad clinical areas they studied. If all states had had a medical cannabis law in 2014, they estimated that total savings could have been 1.0 billion dollars (about 0.9 billion EURs).

Medicaid in the USA is a social health care program for families and individuals with limited resources.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/28424215>

## ***Human: CBD may be helpful in the treatment of anxiety even in low doses***

At the Psychedelic Science Conference from 19-24 April in San Francisco a large case series of 136 patients was presented, which shows that CBD even in low doses of 40-50mg may be useful in the treatment of anxiety.

Source: <http://www.psychedelicscience.org/conference/plant-medicine/cannabidiol-in-the-treatment-of-anxiety-a-large-case-series>

## ***Animal: Both CBD and CBDA reduce anxiety***

In a study with rats both cannabidiol (CBD) and cannabidiol acid (CBDA) reduced anxiety, but only if the animals were stressed. Authors wrote that “these results suggest the anxiolytic effects of CBDA and CBD may require the presence of a specific stressor.”

University of Guelph, Canada.

Source: <https://www.ncbi.nlm.nih.gov/pubmed/28424834>

## ***Human: The endocannabinoid system acts as a regulator of immune homeostasis in the gut***

The endocannabinoid system plays a major role in immune functions of the bowel. For example, oral administration of the endocannabinoid anandamide provided in certain mice (non-obese diabetic mice) protection from type 1 diabetes. Authors wrote that their research “unveils a role for the endocannabinoid system in maintaining immune homeostasis in the gut/pancreas.”

Source: <https://www.ncbi.nlm.nih.gov/pubmed/28439004>

## ***Human: Cannabis use does not increase injury risk***

In a study with 1191 injured and 1613 non-injured patients in two Canadian emergency departments the use of alcohol was associated with a three-fold increase of injury risk, but not for use of cannabis, stimulants and depressants. Alcohol Research Group, Emeryville, CAN.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/28324814>

## ***Human: Depression is higher in pain patients receiving opioids compared to those receiving cannabis***

In a study with 880 chronic pain patients treated at several centres in Israel, those who received prescription opioids had higher rates of depression and anxiety than those treated with cannabis. Of all participants, 474 received opioids, 329 cannabis, and 77 both opioids and cannabis. Depression and anxiety were assessed using the depression module of the Patient Health Questionnaire and the Generalized Anxiety Disorder scale.

Prevalence of depression among patients in the opioid group was 57.1%, in the cannabis group 22.3% and in those receiving both medications 51.4%. Rates of anxiety were 48.4%, 21.5% and 38.7%, respectively. Authors concluded: “levels of depression and anxiety are higher among chronic pain patients receiving prescription opioids compared to those receiving MM [medical marijuana]. Findings should be taken into consideration when deciding on the most appropriate treatment modality for chronic pain, particularly among those at risk for depression and anxiety.”

Source: <https://www.ncbi.nlm.nih.gov/pubmed/28453948>

## ***Cells: Activation of the CB2 receptor may be beneficial in bone cancer***

Research with cancer cells of the bones (osteosarcoma), shows that both CB2 receptor stimulation and vanilloid receptor 2 activation “can act on the same pathways to obtain the same effect, indicating the endocannabinoid/endovanilloid system as a new therapeutic target in osteosarcoma.”

Source: <https://www.ncbi.nlm.nih.gov/pubmed/28467971>

**For more info visit: [www.cannabis-med.org](http://www.cannabis-med.org)**

## ***Use and Effects of Cannabinoids in Military Veterans with PTSD***

The study was to review published evidence regarding the use of cannabis and cannabis derivatives by military veterans with posttraumatic stress disorder (PTSD).

When inhaled or delivered orally or transdermally, cannabinoids (the psychoactive components of unrefined marijuana and various derivative products) activate endogenous cannabinoid receptors, modulating neurotransmitter release and producing a wide range of central nervous system effects, including increased pleasure and alteration of memory processes. Those effects provide a pharmacologic rationale for the use of cannabinoids to manage the three core PTSD symptom clusters: re-experiencing, avoidance and numbing, and hyperarousal.

A literature search identified 11 articles pertaining to cannabis use by military veterans who met standard diagnostic criteria for PTSD. Cross-sectional studies have found a direct correlation between more severe PTSD symptomatology and increased motivation to use cannabis for coping purposes, especially among patients with difficulties in emotional regulation or stress tolerance. Data from four small studies suggested that cannabinoid use was associated with global improvements in PTSD symptoms or amelioration of specific PTSD symptoms such as insomnia and nightmares. Large well-designed controlled trials are needed in order to better delineate the potential role of cannabinoids as an adjunct or alternative to conventional approaches to PTSD management.

While further research into cannabinoid treatment effects on PTSD symptoms is required, the evaluated evidence indicates that substantial numbers of military veterans with PTSD use cannabis or derivative products to control PTSD symptoms, with some patients reporting benefits in terms of reduced anxiety and insomnia and improved coping ability.

**Source:** <https://www.ncbi.nlm.nih.gov/pubmed/26195653>



## ***Cdn. Forces, Veterans Affairs to Test Effects of Medical Cannabis on PTSD***

The Canadian Forces and Veterans Affairs are setting up a clinical trial to evaluate the safety and efficacy of using medical cannabis to treat post-traumatic stress disorder (PTSD) in military members and veterans.

A briefing note to the Veterans Affairs minister from October 2016 reveals a senior psychiatrist with the Canadian Forces "has drafted a preliminary protocol to conduct a clinical trial" that would look at how effective and safe marijuana is in treating PTSD. But as of October the biggest obstacle was finding a way to fund the study and research team needed to implement it. According to a spokesperson for the Canadian Forces Health Services, the military and Veterans Affairs are in the "very early stages of developing a research project ... to study the safety and efficacy of marijuana in the treatment of mental health disorders."

Veterans Affairs reimburses veterans for up to three grams of medical marijuana a day, for a variety of reasons, including relieving symptoms of PTSD. That amount was lowered from 10 grams a day last fall after an auditor general's report questioned how the department arrived at that number, citing a lack of evidence.

That same auditor general's report revealed the number of veterans receiving medical cannabis had jumped from 112 in fiscal year 2013-14 to 1,320 in the nine months between April and December 2015.

A spokesperson for Veterans Affairs said in an email to the CBC that since the department changed the reimbursement policy for medical cannabis, it has "been reviewing existing research" and wants to ensure that the study with the military "will have the greatest impact on strengthening evidence on the effects of marijuana on the health of veterans."

Neither Veterans Affairs nor the military would provide more details about the study, when it will begin, or how much it will cost.

Zach Walsh, an associate professor at UBC and the principal investigator on a Canadian clinical trial for using medical cannabis to treat PTSD, said trials like this are needed but that anecdotal evidence from veterans already using cannabis to get relief from PTSD symptoms should also be taken into account.

"I don't want that to eclipse, in the meantime, the importance of what we're hearing from veterans, some of whom report very good effects. We want to pay attention to the patients," he said.

The UBC trial is being run in partnership with Tilray, a medical cannabis producer; the randomized clinical trial includes 42 people.

**Source:** [www.cbc.ca/news/politics/military-veterans-affairs-marijuana-clinical-trial-1.4101355](http://www.cbc.ca/news/politics/military-veterans-affairs-marijuana-clinical-trial-1.4101355)

## ***Cannabis Reverses Aging Processes In the Brain, Study Suggests***

Memory performance decreases with increasing age. Cannabis can reverse these ageing processes in the brain of mice, as shown by scientists at two universities. Old animals were able to regress to the state of two-month-old mice with a prolonged low-dose treatment with a cannabinoid. This opens up new options when it comes to treating dementia; the results are presented in the journal *Nature Medicine*.

Our brain ages like any other organ. As a result, cognitive ability also decreases with increasing age. This can be noticed, for instance, in that it becomes more difficult to learn new things or devote attention to several things at the same time. This process is normal, but can also promote dementia. Researchers have long been looking for ways to slow down or even reverse this process.

Scientists at the University of Bonn and The Hebrew University of Jerusalem (Israel) have now achieved this in mice. These animals have a relatively short life expectancy in nature and display pronounced cognitive deficits even at twelve months of age. The researchers administered a small quantity of THC, a predominant cannabinoid in the cannabis plant, to mice aged two, 12 and 18 months over a period of four weeks.

Afterwards, they tested learning capacity and memory performance in the animals including, for example, orientation skills and the recognition of other mice. Mice who were only given a placebo displayed natural age-dependent learning and memory losses. In contrast, the cognitive functions of the animals treated with cannabis were just as good as the two-month-old control animals.

Sources: [www.nature.com/nm/journal/vaop/ncurrent/full/nm.4311.html](http://www.nature.com/nm/journal/vaop/ncurrent/full/nm.4311.html)  
[www.sciencedaily.com/releases/2017/05/170508112400.htm](http://www.sciencedaily.com/releases/2017/05/170508112400.htm)

**Visit us at [www.thevics.com](http://www.thevics.com)**

## ***Cannabis Could Help Reduce Crack Cocaine Use, Study Finds***

Cannabis has been identified as a potential substitute for users of legal or illicit opioids, but a new Vancouver-based study shows the drug may also help reduce people's cravings for another highly addictive substance: crack cocaine.

Scientists at the BC Centre on Substance Use tracked 122 people who consumed crack in and around Vancouver's Downtown Eastside over a three-year period and found they reported using that drug less frequently when they opted to also consume cannabis.

"We're not saying that these results mean everyone will be able to smoke a joint and forget the fact that they are dependent on crack," said M.J. Milloy, an infectious-disease epidemiologist at the centre and senior author of the study. "What our findings do suggest is that cannabinoids might play a role in reducing the harms of crack use for some people."

These results, published in the latest issue of the international peer-reviewed journal *Addictive Behaviors*, echo a smaller study of 25 crack users in Brazil that found just more than two-thirds of them were able to stop consuming that drug while using cannabis.

Addiction experts in Vancouver can offer those consuming heroin effective - and legal - substitutes such as suboxone and methadone, but there are no pharmaceutical therapies for people addicted to crack cocaine, Dr. Milloy said. Cannabis was deemed less dangerous than tobacco in a 2010 study that ranked 20 legal and illegal drugs based on the dependence, social and physical harms they caused. The report, published in the British medical journal *The Lancet*, said both were considered far less dangerous to users and the general public than heroin, cocaine and alcohol.

Sources: <http://www.mapinc.org/newsvics/v17/n171/a05.html?204>

### ***RESOURCE DIRECTORY:***

***AIDS Vancouver Island***  
3rd Fl- 713 Johnson St, Victoria  
250-384-2366

***VIPWA***  
101-1139 Yates Street, Victoria  
250-382-7927

***The Action Committee of People with Disabilities***  
948 View Street, Victoria  
250-383-4105

***Victoria Brain Injury Soc.***  
830 Pembroke St., Victoria  
(250) 598-9339

***HepC BC***  
2642 Quadra Street, Victoria  
250- 595-3892

***BC Cancer Agency***  
2410 Lee Ave, Victoria  
(250) 519-5500

***Canadians for Safe Access***  
[www.safeaccess.ca](http://www.safeaccess.ca)

***John W. Conroy, Q.C.***  
1-877-852-5110 (toll free)  
[www.johnconroy.com](http://www.johnconroy.com)

***Kirk Tousaw, Barrister***  
604-836-1420  
[www.tousawlaw.ca](http://www.tousawlaw.ca)

***DrugSense***  
[www.drugsense.org](http://www.drugsense.org)

***BC Coalition of People With Disabilities***  
1-800-663-1278

***Health Canada***  
<http://www.hc-sc.gc.ca/dhp-mps/marihuana/index-eng.php>

***Drug Policy Alliance***  
[www.drugpolicy.org](http://www.drugpolicy.org)

***Media Awareness Project***  
[www.mapinc.org](http://www.mapinc.org)

***Together Against Poverty Society***  
302-895 Fort Street, Victoria  
250-361-3521

***"Life should not be a journey to the grave with the intention of arriving safely in a pretty and well-preserved body, but rather to skid in broadside in a cloud of smoke, thoroughly used up, totally worn out, and loudly proclaiming, "Wow! What a Ride!"***

***-- Hunter S. Thompson (journalist and author, 1937 - 2005)***