



“The illegality of cannabis is outrageous, an impediment to full utilization of a drug which helps produce the serenity and insight, sensitivity and fellowship so desperately needed in this increasingly mad and dangerous world.”

~ Carl Sagan

## WELCOME TO A NEW WORLD IN HEALTH CARE.

Its 2018 and we have some amazing news coming up later this year as well as the movement from the deep of winter into the glorious spring time next month.

We are happy to present you with this fifteenth issue of our medical cannabis newsletter. This issue we have some great ways for you to get more exercise even when you are at your desk. Also be sure to check out our superfood of the month, avacados!



## Could Cannabis Help to Treat Epilepsy?

Approximately 1 in 100 Canadians suffer from epilepsy—a brain disorder that is characterized by recurrent seizures—with over 40 million sufferers worldwide. It’s widely reported that most new cases occur in either seniors or young children, although the condition may start at any age. The condition is usually diagnosed after a patient reports having several seizures and after doctor-prescribed diagnostic testing is concluded and the results have been analyzed.

Epilepsy is largely a treatable condition and most people with epilepsy who take prescribed medication maintain good seizure control and are able to live quite normal lives, however, there are instances where it can be treatment-resistant.

Anecdotal stories about the ability of cannabis to help alleviate seizures in sufferers of epilepsy have been around for many years but only recently has it been the subject of medical studies. Now, recent scientific research has revealed that cannabis could prove to be effective in treating patients who suffer from the treatment-resistant form of the disease.



A neurologist at New York University's Langone Medical Center, Orrin Devinsky, and a team composed of researchers from various institutions, published the results of their study in *The Lancet Neurology*. To date, it is the largest research study ever done on patients receiving a cannabis-based drug for treatment-resistant epilepsy.

The researchers studied 162 patients over a period of 12 weeks, treating them with an extract of 99 percent cannabidiol (CBD), the non-psychoactive chemical in cannabis. The CBD was administered as an add-on to the patients' existing medications and all patient participants were aware that they were receiving the treatment (it was not a double blind placebo controlled study). The study found that the additional treatment helped to reduce seizures for more than 36 percent of participants, while a very small two percent of patients reported that they were seizure free.

It should be noted that while more than 75 percent of the participants did report some adverse effects—these included sleepiness, diarrhea and fatigue—only three percent dropped out of the study due to more severe adverse effects.

Although the Devinsky study is the most vigorous investigation to date of CBD's effect on epilepsy, questions do remain. Because the trial was open-label, with no control group, researchers are concerned about the placebo effect. Previous studies have shown that with marijuana-based products, the placebo effect might be fairly strong.

Another concern is that of potential drug interactions. CBD is a potent liver enzyme inhibitor so it may intensify the effects of other drugs in a patient. In other words, the concern is that when it is administered along with other treatments, the resulting effects on subjects could be due to increased exposure to the other compounds rather than the CBD itself.

Despite these findings, the study's authors agree that theirs is an important step in establishing CBD as a safe and effective epilepsy treatment. "This is a first step, and it's great," Detyniecki opined. He went on to conclude that although there were reported adverse events, "there were no surprising side effects—we can conclude that CBD appears to be safe in the short term."



# NEW MEDICAL MARIJUANA CENTRE OPENING IN HAMILTON, ONTARIO

Medicinal cannabis has been legal in Canada for more than 16 years, yet there is a lack of research to prove its effectiveness. In response to that fact, McMaster University and St. Joseph's Healthcare, in Hamilton, Ontario, have joined scientific forces to study the effectiveness of medicinal cannabis at the newly opened Michael G. DeGroote Centre for Medicinal Cannabis Research (CMCR).

The CMCR project was initiated with three co-directors: James MacKillop and Jason Busse, along with medical advisor, Dr. Ramesh Zacharias. MacKillop, who is also a professor of psychiatry and neurosciences at McMaster's Michael G. DeGroote School of Medicine, and director of the Peter Boris Centre for Addictions Research at St. Joseph's Healthcare Hamilton, is quoted in the press release announcing the launch, saying "Medicinal cannabis use is skyrocketing in Canada and the number of possible conditions keeps rising, but the state of the evidence is often quite poor." He goes on to acknowledge, "There is an urgent need for rigorous, objective, multidisciplinary research on medicinal cannabis. That need was the impetus for creating this centre."

Co-directors along with MacKillop, include Jason Busse, an associate professor of anesthesia for McMaster's medical school and a researcher for the Michael G. DeGroote National Pain Centre, as well as Ramesh Zacharias who is a pain specialist, and medical director of the Michael G. DeGroote Pain Clinic at Hamilton Health Sciences and assistant chief coroner for the province of Ontario.

Working alongside the three co-directors will be a team of more than 25 researchers, from various disciplines, who will endeavour to increase our understanding of how medicinal cannabis might help in the treatment of all kinds of medical conditions, including pain management, as well as develop a catalogue of findings concerning any adverse indications as well.

Intended to accommodate multidisciplinary research, the centre will focus on conducting scientific and medical studies, disseminating information on medicinal cannabis, and act as a clearinghouse and network for professionals to consult, all in an effort to increase our understanding of the healing benefits as well as any harmful effects of medicinal cannabis.

Some of the research will also include reviews of the economic and policy implications of Canada's cannabis legislation and the development of methods to ensure medicinal guidelines for chemical ingredients in medicinal cannabis products.

"Prescribing of medicinal cannabis for chronic pain has outpaced the evidence to support this practice," Busse is quoted as saying. "We will provide high-quality research to guide evidence-based decision-making by patients and clinicians."

The creation of a research facility and community dedicated to producing the scientific evidence required for informed medicinal cannabis use is critical, says Zacharias. "One of the lessons learned from the current opioid crisis is that we need good research to clearly identify the appropriate use of medicinal cannabis and to limit potential harm," said Zacharias. "We need to ensure we do not make the same mistakes made with opioid prescribing."

Kevin Smith, CEO of St. Joseph's Healthcare Hamilton, is also quoted, stating: "We must address the changing needs of our communities and our patients. It is our responsibility to lead research that will bring evidence into practice to improve the health and outcomes for patients."

"A reality of the mental health landscape is that cannabis use and misuse are very common among psychiatric patients," said MacKillop. "That's why it is important for this research centre to be directly connected to a major mental healthcare provider."

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# Super Food of the Month – Mushrooms

The ancient Greeks and Romans thought asparagus possessed medicinal qualities, curing everything from rheumatism to toothaches. While none of these properties have been proven true, asparagus is a nutrient-dense super food that may prevent heart disease, cancer and certain birth defects. Low in calories, fat and sodium, this springtime delicacy—actually, a member of the lily family—is also a superb vegetable for those who are watching their weight.

Eat asparagus as soon as possible after picking. It spoils quickly and, unrefrigerated, loses half its vitamin C in just two to three days. And avoid it if you're suffering from gout: It contains purines, which can precipitate a painful attack of that disease.

Some people notice that asparagus gives their urine a pungent odor, but don't worry: This harmless reaction occurs when the body metabolizes the Sulphur compounds in the food. Studies show, however, that only about 40 percent of people experience this.

## What's In It

**Fibre:** Insoluble fibre is important for promoting a healthy digestive tract, and soluble fibre helps to lower cholesterol. (One cup of asparagus has nearly 3 g of dietary fibre.)

**Folate:** This is vital during pregnancy, as it prevents the development of neural-tube defects in the fetus. Folate is also cardio-protective; it helps to reduce homocysteine, an amino acid linked to heart disease risk. Folate may even help prevent cancer, because low folate levels may damage DNA and lead to cancerous changes in cells. A cup of cooked asparagus provides a remarkable 263 mcg of folate—that's 66 percent of your daily recommended intake.

**Glutathione:** Functioning as an antioxidant, the enzyme glutathione may have the ability to detoxify carcinogenic substances and protect cells from free-radical damage.  
**Rutin:** This antioxidant flavonoid works hand-in-hand with the antioxidant vitamin C to maintain blood-vessel health.

**Saponins:** These compounds may prevent heart disease by binding and preventing absorption of cholesterol in the digestive tract.

**Vitamin B6:** This immune-boosting vitamin, required for the production of disease-fighting antibodies, plays an important role in enabling the body to derive energy from food. Preliminary research suggests that vitamin B6 also helps to relieve the discomfort of premenstrual tension as well as nausea in early pregnancy.

## Try This!

Most people don't think of roasting asparagus, but it's delicious and a good way to preserve the B vitamins. Toss trimmed asparagus with a little olive oil, salt and pepper, and roast in a 450°F (232°C) oven for 10 to 20 minutes. Delicious!

