What is Cannabis?

Cannabis (sometimes called marijuana, pot or weed) is a type of plant.

Cannabis can be found in many forms and is used in different ways including:

- Smoking its dried flowers, leaves, stems or seeds.
- Breathing it in from a vaporizer or a vaping device, like an e-cigarette
- Eating or drinking it in foods or teas putting cannabis oils and capsules under the tongue or swallowing them

What is Medical Cannabis?

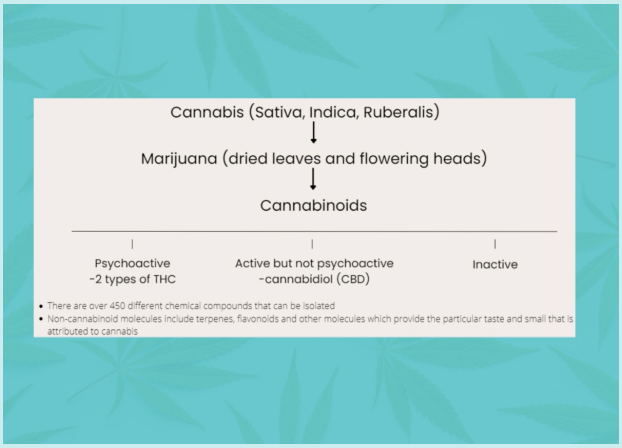
Medical cannabis can help treat symptoms like pain, nausea, and lack of appetite. It may be used by people who have conditions like cancer, AIDS, or multiple sclerosis.

The two most biologically active chemicals in cannabis are THC and CBD.

THC affects how you think, act, and feel. It can make you feel intoxicated or "high."

CBD may lessen pain and other symptoms.

There are many types, or strains, of



cannabis. Each plant has specific THC-to-CBD ratios. Because of this, some strains have different kinds of effects than others. For example, if a strain of cannabis has a higher ratio of THC to CBD, it's more likely to affect your judgment, coordination, and decision making.

The Endocannabinoid System

What are Cannabinoids?

Cannabinoids are the chemicals in cannabis that affect your brain and body.

Two well-known cannabinoids are:

- THC (tetrahydrocannabinol), is a drug that changes mood and the way the brain works). THC can give you a “high” feeling that can include feeling happy for a short time. THC can cause many other feelings you may not expect or want to feel.

- CBD (cannabidiol), is a drug that does not give you a “high” feeling.

Medical cannabinoids are prescription drugs that are made from some of the chemicals found in cannabis.

Definitions

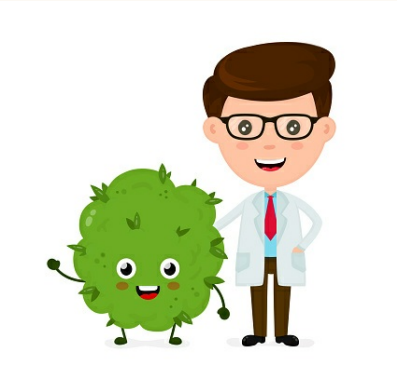
Cannabinoids are a class of compounds that act on cannabinoid receptors in the human body.

Endocannabinoids are cannabinoids that are naturally produced in the body (endogenous).

Phytocannabinoids are cannabinoids produced by the cannabis plant.

Synthetic cannabinoids are lab-synthesized compounds that bind to cannabinoid receptors (Nabilone).

Medical Cannabis



Medical cannabis is legal in Canada, and recreational cannabis was legalized as of October 2018. The Canadian government allows seriously ill people access to cannabis for medical reasons. This is commonly called medical cannabis.

People who want to use cannabis for medical purposes must get a medical document (like a prescription) from a doctor or nurse practitioner. With this document, they can purchase cannabis for medical purposes through licensed producers in Canada. It comes in many forms including dried cannabis, cannabis oil, or fresh cannabis buds or leaves that can be smoked, vaporized, or eaten in food.

Medicines that contain THC are also available.

These include:

- THC and CBD (Sativex). This is a combination medicine that can relieve pain in people with advanced cancer and relieve muscle stiffness in people with multiple sclerosis. This drug has naturally occurring THC and CBD.
- Nabilone (Cesamet). This medicine is used to relieve nausea and vomiting caused by chemo. It may also improve the appetite of people who have AIDS. Nabilone is a synthetically produced THC.

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CBD/THC

CBD is non-intoxicating, does not cause “high”

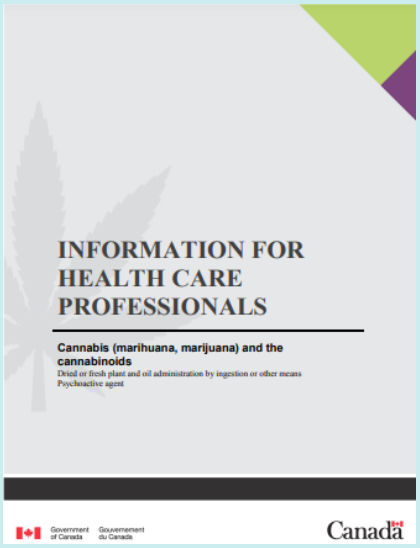
- May work better in conjunction with other chemicals such as THC found in cannabis
- Side effects typically none to minimal

THC has euphoric effects, may be uncomfortable for some due to psychoactive effect on brain chemistry

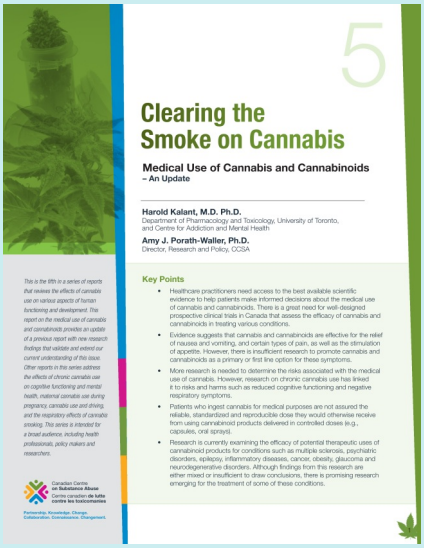
- Binds to CB1 receptors in brain and CNS resulting in euphoric effects
- When CBD is present can make it harder for TCH to bind to CB1 receptors and reduces psychoactive S/E

Resources and References

[Cannabis for medical purposes under the Cannabis Act: information and improvements]



[Information for Health Care Providers: Cannabis]



[CCSS Use of Medical Cannabis]

Uses of Medical Cannabis

Chemotherapy Induced N/V

- Pre-clinical studies show that certain cannabinoids (THC, CBD, THCV, CBDV) and cannabinoid acids (THCA and CBDA) suppress acute nausea and vomiting as well as anticipatory nausea.
- Clinical studies suggest that certain cannabinoids and cannabis (limited evidence) use may provide relief from chemotherapy-induced nausea and vomiting (CINV).

Wasting Syndrome

- The available evidence from human clinical studies suggests that cannabis (limited evidence) and dronabinol may increase appetite and caloric intake, and promote weight gain in patients with HIV/AIDS.
- However the evidence for dronabinol is mixed and effects modest for patients

Pain

- It is now well established that the ECS plays an important role in the modulation of nociceptive and pain states. Key in these roles is the specific positioning of the endocannabinoid signaling machinery at neuronal synapses in pain processing pathways at supraspinal, spinal, and peripheral levels.

Acute Pain

- Pre-clinical studies suggest that certain cannabinoids can block the response to experimentally-induced acute pain in animal models.
- The results from clinical studies with smoked cannabis, oral THC, cannabis extract, and nabilone in experimentally-induced acute pain in healthy human volunteers are limited and mixed and suggest a dose-dependent effect in some cases, with

with cancer and weak for patients with anorexia nervosa.

MS, ALS, Spinal Cord Injury & Disease

- Evidence from pre-clinical studies suggests THC, CBD and nabiximols improve multiple sclerosis (MS) associated symptoms of tremor, spasticity and inflammation.
- The available evidence from clinical studies suggests cannabis (limited evidence) and certain cannabinoids (dronabinol, nabiximols, THC/CBD) are associated with some measure of improvement in symptoms encountered in MS and spinal cord injury (SCI) including spasticity, spasms, pain, sleep and symptoms of bladder dysfunction.
- Very limited evidence from pre-clinical studies suggests that certain cannabinoids modestly delay disease progression and prolong survival in animal models of amyotrophic lateral sclerosis (ALS), while the results from a very limited number of clinical studies are mixed.

Epilepsy

- Anecdotal evidence suggests an anti-epileptic effect of cannabis (THC- and CBD-predominant strains).
- The available evidence from

lower doses of THC having an analgesic effect and higher doses having a hyperalgesic effect.
- Clinical studies of certain cannabinoids (nabilone, oral THC, for post-operative pain suggest a lack of efficacy.

Chronic Pain

- Endocannabinoids, THC, CBD, nabilone and certain synthetic cannabinoids have all been identified as having an anti-nociceptive effect in animal models of chronic pain (inflammatory and neuropathic).

Neuropathic Pain

- A few studies that have used experimental methods having predictive validity for pharmacotherapies used to alleviate chronic pain, have reported an analgesic effect of smoked cannabis.
- Furthermore, there is more consistent evidence of the efficacy of cannabinoids (smoked/vapourized cannabis, nabiximols, dronabinol) in treating chronic pain of various etiologies, especially in cases where conventional treatments have been tried and have failed.

Cancer Pain

- The limited available clinical evidence with certain cannabinoids (dronabinol,

pre-clinical and limited clinical studies suggests certain cannabinoids (CBD) may have anti-epileptiform and anti-convulsive properties, whereas CB1R agonists (THC) may have either pro- or anti-epileptic properties.
- However, the clinical evidence for an anti-epileptic effect of cannabis is weaker, but emerging, and requires further study.
- Evidence from clinical studies with Epidiolex® (oral CBD) suggests efficacy and tolerability of Epidiolex® for drug-resistant seizures in treatment-resistant Dravet syndrome or Lennox-Gastaut syndrome.
- Evidence from observational studies suggests an association between CBD (in herbal and oil preparations) and a reduction in seizure frequency as well as an increase in quality of life among adolescents with rare and serious forms of drug-resistant epilepsy.
- Epidiolex® has received FDA approval (June 2018) for use in patients 2 years of age and older to treat treatment-resistant seizures associated with Dravet syndrome and Lennox-Gastaut syndrome.

Alzheimer's & Dementia

nabiximols) suggests a modest analgesic effect of dronabinol and a modest and mixed analgesic effect of nabiximols on cancer pain.

Arthritis & Muscular Skeletal

- The evidence from pre-clinical studies suggests stimulation of CB1 and CB2 receptors alleviates symptoms of osteoarthritis (OA), and THC and CBD alleviate symptoms of rheumatoid arthritis (RA).
- The evidence from clinical studies is very limited, with a modest effect of nabiximols for RA.
- There are no clinical studies of cannabis for fibromyalgia, and the limited clinical evidence with dronabinol and nabilone suggests a modest effect on decreasing pain and anxiety, and improving sleep.
- The role of cannabinoids in osteoporosis has only been investigated pre-clinically and is complex and conflicting.

Stress and Psychiatric Disorders

- There are anecdotal and, in some cases, historical claims regarding the beneficial effects of cannabis and cannabinoids in the treatment of a variety of psychiatric disorders including anxiety, depression, sleep disorders,

- Pre-clinical studies suggest that THC and CBD may protect against excitotoxicity, oxidative stress and inflammation in animal models of Alzheimer's disease (AD).
- Limited case, clinical and observational studies suggest that oral THC and nabilone are associated with improvement in a number of symptoms associated with AD (e.g. nocturnal motor activity, disturbed behaviour, sleep, agitation, resistiveness).

Headache & Migraine

- The evidence supporting using cannabis/certain cannabinoids to treat headache and migraine is very limited and mixed.

Medical Cannabis is being studied and used for many other medical conditions. For more information, please visit : https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/information-medical-practitioners/information-health-care-professionals-cannabis-cannabinoids.html#a4.3

Opioid Sparring Effect

- While pre-clinical and case studies suggest an "opioid-sparing" effect of certain cannabinoids, epidemiological and clinical studies with oral THC and

PTSD, and withdrawal symptoms associated with drug abuse/addiction.

Anxiety and Depression

- Evidence from pre-clinical and clinical studies suggests that THC exhibits biphasic effects on mood, with low doses of THC having anxiolytic and mood-elevating effects and high doses of THC having anxiogenic and mood-lowering effects.
- Limited evidence from a small number of clinical studies of THC-containing cannabis/certain prescription cannabinoids suggests that these drugs could improve symptoms of anxiety and depression in patients suffering from anxiety and/or depression secondary to certain chronic diseases (e.g. patients with HIV/AIDS, MS, and chronic neuropathic pain).
- Evidence from pre-clinical studies suggests that CBD exhibits anxiolytic effects in various animal models of anxiety, while limited evidence from clinical studies suggest CBD may have anxiolytic effects in an experimental model of social anxiety.
- Limited evidence from some observational studies also suggests that cannabis containing equal proportions of CBD and THC is

nabiximols are mixed.
- Observational studies suggest an association between U.S. states with laws permitting access to cannabis (for medical and non-medical purposes) and lowered rates of prescribed opioids and opioid-associated mortality.

associated with an attenuation of some perturbations in mood (anxiety/dejection) seen with THC-predominant cannabis in patients using cannabis for medical purposes.

When Medical Cannabis Should Not Be Used

- are under the age of 25
- are allergic to any cannabinoid or to smoke
- have serious liver, kidney, heart or lung disease
- have a personal or family history of serious mental disorders such as schizophrenia, psychosis, depression, or bipolar disorder
- are pregnant, are

Side Effects

- dizziness, drowsiness, feeling faint or lightheaded, fatigue, headache;
- impaired memory and disturbances in attention, concentration and ability to think and make decisions;
- disorientation, confusion, feeling drunk, feeling abnormal or having abnormal thoughts, feeling "too high", feelings of unreality, feeling an extreme slowing of time;
- suspiciousness, nervousness, episodes of anxiety resembling a panic attack, paranoia (loss of contact with reality), hallucinations (seeing or hearing things that do not exist);
- impairments in motor skills and perception, altered bodily

planning to get pregnant, or are breast-feeding
- are a man who wishes to start a family
- have a history of alcohol or drug abuse or substance dependence

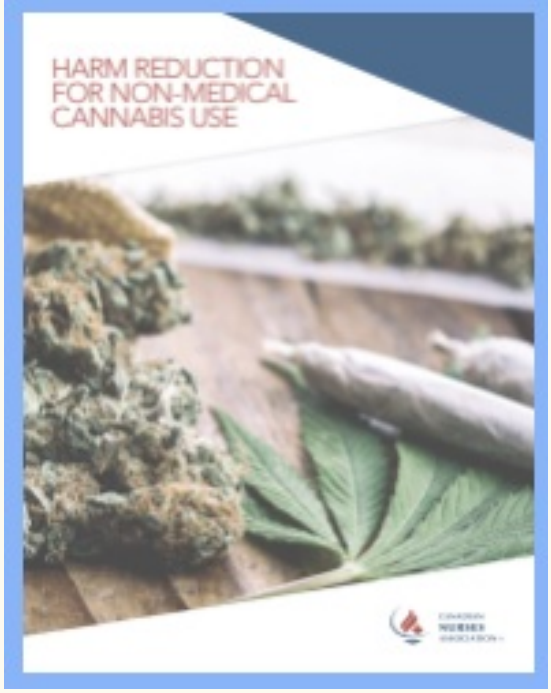
perceptions, loss of full control of bodily movements, falls;
- dry mouth, throat irritation, coughing;
- worsening of seizures;
- hypersensitivity reactions (contact dermatitis/hives);
- higher or lower blood levels of certain medications;
- nausea, vomiting; and
- fast heartbeat.

Long Term Side Effects

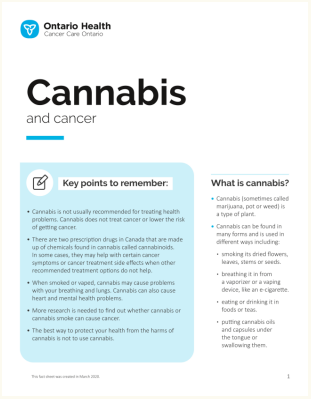
- increase the risk of triggering or aggravating psychiatric and/or mood disorders (schizophrenia, psychosis, anxiety, depression, bipolar disorder);
- increase the risk of developing respiratory infections or chronic cough (when smoking);
- decrease sperm count, concentration and motility, and increase abnormal sperm morphology;
- negatively impact the behavioural and cognitive development of children born to mothers who used cannabis during pregnancy;
- negatively affect cognitive functions (ability to think and make decisions);
- lead to a decrease in one or more of the effects of cannabis (tolerance);
- lead to withdrawal-type symptoms when use is abruptly halted or discontinued. Withdrawal symptoms may include anger or aggression, irritability, anxiety, nightmares/strange dreams, insomnia/sleep difficulties, craving, headache, restlessness, and decreased appetite or weight loss, depressed mood, chills, stomach pain, shakiness and sweating; and
- result in psychological dependence (addiction) which is characterized by impaired control over drug use, compulsive use, continued use despite harm, and craving.

Resources and References

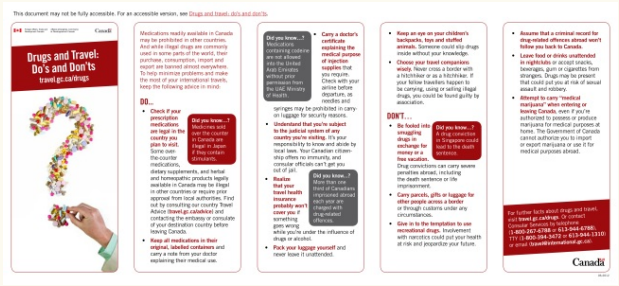
[How to reduce the harms of Non-medical Cannabis]



[Harm Reduction For Non-medical Cannabis Use]



[Ontario Health: Cannabis and Cancer]



[Drugs & Travel - Do's & Don't]

Central East Palliative Pain and Symptom Management Consultants

For consultation support or education requests:

Brenda Derdaele, RN, CHPCN (C)
Palliative Pain & Symptom Management Consultant
Durham Region

Email Me

August Educational Opportunities:

Topic: Symptom Management @ EOL/Symptom Response Kit (2022)

Lunch and Learn

- Wednesday, August 10
- 12-1pm

Lunch & Learn Registration

Coffee and Palliative Care

- Thursday, August 11
- 3-4pm

Erin Newman-Waller, RN, BScN, CHPCN(C)
Palliative Pain & Symptom Management Consultant
Peterborough Hospice

Email Me

Gwen Cleveland, RN, BScN, MEd, CHPCN(C)
Palliative Pain & Symptom Management Consultant
Scarborough

Email Me

Coffee & Care Registration

Durham Region PPSMC Educational Hub

PDF Version of Newsletter

Please help VON Durham Hospice Services support our Palliative Community.

We offer:

- Hospice Volunteer supports
- Patient & Caregiver support groups
- Care Navigation
- Supportive Care Counselling
- Grief & Bereavement support
- Community Education

Visit our Website | vondurham.org

VON Durham Referral Form

Hospice Peterborough offers:

- Hospice Volunteer supports
- Patient & Caregiver support groups
- Nurse Navigation
- Supportive Care Counselling
- Grief & Bereavement support
- Community Education
- Hospice Residence

hospicepeterborough.org

Referral Form

Thanks to Oak Ridges Hospice for their ongoing support and exemplary end-of-life care. If you are interested in a tour or making a referral, please visit their website for more information.

Visit their Website | Oak Ridges Hospice