

## CANNABIS LEGALIZATION: SUPPORT MATERIAL FOR MANITOBA PHYSICIANS

### 1. GENERAL INFORMATION

#### Cannabis 101

What is cannabis?

Cannabis is a product derived from the Cannabis sativa plant. Cannabis contains hundreds of chemical substances known as cannabinoids. Cannabinoid receptors and the endocannabinoid system process cannabinoids. Terpenes give cannabis its distinct smell.

What is the endocannabinoid system?

The endocannabinoid system is a lipid signaling system found in all vertebrates. This system has important regulatory functions throughout the body and has been linked with the following physiological and pathophysiological processes: neural development, immune function, inflammation, appetite, metabolism and energy homeostasis, cardiovascular function, digestion, bone development and bone density, synaptic plasticity and learning, pain, reproduction, psychiatric disease, psychomotor behaviour, memory, wake/sleep cycles, and the regulation of stress and emotions.

Two important components of cannabis include:

#### THC

Delta-9-tetrahydrocannabinol (THC) is the cannabinoid responsible for how the body reacts to cannabis, including intoxication. The concentration of THC is usually shown as a percentage of THC by weight of the cannabis product or by volume if dealing with a cannabis oil. If a cannabis product has less than 0.3% of THC in its flowers or leaves it is considered as hemp.

#### CBD

Cannabidiol (CBD) is a cannabinoid that does not intoxicate users or produce a high, but it does affect ion channels, receptors and enzymes. There is some evidence that CBD can block or decrease the effects of THC. Common effects of CBD use include: anti-inflammatory, analgesic, anti-nausea, anti-emetic, anti-psychotic, anti-ischemic, anxiolytic, and anti-epileptiform.

#### Addiction and Problematic Use

Recreational cannabis can be addictive. Overall, the addiction risk is 1 in 11 and 1 in 6 for those who start using as a teen.

Cannabis use disorder:

- The DSM-5 defines as “a problematic pattern of cannabis use leading to clinically significant impairment or distress”.
- Symptoms include tolerance and withdrawal.

- Cannabis withdrawal includes: irritability, anger or aggression, anxiety, depressed mood, restlessness, difficulty sleeping, decreased appetite, and weight loss.
- Adolescence is the most common time for onset.

#### Cannabis smoke & second-hand smoke:

- Exposure to cannabis smoke can trigger acute and chronic health issues that include: cardiovascular events, asthma, cancers, chronic obstructive pulmonary disease, and a range of respiratory and circulatory conditions as well dermatitis, rhinosinusitis and allergic reactions.
- Cannabis smokers tend to inhale more deeply and hold their breath for longer, this can push cancer causing agents to travel further into the lungs.
- Exposure to second hand cannabis smoke contains many of the same toxins found in cannabis smoke that is directly inhaled, including carcinogens.

#### Cannabis and mental health:

- Recreational cannabis use can trigger or heighten symptoms of anxiety and or depression.
- Recreational cannabis use in teenage years is linked to the development of mood and anxiety disorders and an increased likelihood of developing psychiatric disorders later in life.
- Cannabis use and schizophrenia:
  - Increases the risk of developing schizophrenia in youth
  - Increases the risk of triggering an early onset of schizophrenia for an individual that has a genetic predisposition (for example, family history)
  - Continued cannabis use for an individual with schizophrenia can heighten psychotic symptoms

#### Toxic effects and other harms/risks:

- There are no known cases of death due to an overdose of cannabis. However, cannabis increases the heart rate so users with heart disease or high blood pressure, or those taking blood pressure medications, are at increased risk.
- Those people who experience hallucinations, paranoia or panic may behave in ways that put themselves at risk for physical harm.
- Cannabis products can be contaminated or laced with other harmful substances, such as fentanyl.

## 2. COMMONLY ASKED QUESTIONS ABOUT RECREATIONAL USE

#### How does recreational cannabis make you feel?

- Recreational cannabis can affect users in very different ways. Some users feel relaxed and happy, others feel drowsy, panicked, confused, or forgetful. Some users have delusions and altered perceptions. These effects can change over time and can be dependent on factors such as the strain of cannabis.

Is one consumption method safer than the rest?

- Recreational cannabis is an inherently harmful substance and the health risks caused by recreational cannabis use can best be avoided by abstaining from use. Cannabis smoke can trigger acute and chronic health issues, including a range of respiratory conditions, cardiovascular events, asthma, cancers, and chronic obstructive pulmonary disease.

Is recreational cannabis safe to use when trying to get pregnant?

- Individuals trying to get pregnant should refrain from consuming cannabis and exposure to second-hand cannabis smoke.

Is it safe to use recreational cannabis when pregnant?

- Women who are pregnant should refrain from consuming recreational cannabis and exposure to second-hand smoke. Cannabis use during pregnancy may increase the risk of: preterm birth, low birth weight and small for gestational age.

Is it safe to use recreational cannabis when breastfeeding?

- Women who are breastfeeding should refrain from consuming recreational cannabis and exposure to second-hand cannabis smoke.

Is it safe to use recreational cannabis and drive?

- It is not safe to drive when impaired by the use of recreational cannabis, as it negatively affects reaction times and concentration.
- The recently published Lower-Risk Cannabis Use Guidelines instruct individuals who consume cannabis to wait before driving for at least six hours. This wait time may need to be longer, depending on the user and the product consumed. Variables such as individual tolerance, amount and form of consumption can impact what an appropriate wait time may be.

Is it safe to use recreational cannabis before surgery?

- It is not safe to use recreational cannabis prior to surgical procedures as cannabis can interact with other medications, including anesthetics.

### 3. GUIDING THE CONVERSATION WITH PATIENTS

Provide health information

- Let the patient know that part of your role is to convey health information, including the side effects of recreational cannabis and how it can impact his or her health.

Encourage honesty

- The patient may feel embarrassed to share information and stigma may still exist. Encourage the patient to be accurate with the information he or she may provide and encourage open discussion about their cannabis use.

There are no stereotypes

- Cannabis crosses all ages, cultures, genders, and socioeconomic groups.

Be aware of other medications

- Recreational cannabis could interact with other medications. The most significant interactions are between cannabis and other central nervous system drugs (sedative-hypnotics or alcohol).

Talk about health impacts

- Recreational cannabis can have negative health impacts that include: harmful effects on mental health and addiction, cognitive effects, respiratory and circulatory diseases and impairment.

Ask the patient about their cannabis use

- This can be a discussion on its own or part of a conversation about substance use when talking alcohol and tobacco. Quickly screening to see if the patient plans on using recreational cannabis or how often a patient is using recreational cannabis can help to determine whether a more in-depth conversation is appropriate.

Be supportive

- If your patient lets you know he or she is using cannabis, try to understand why. Some common reasons might include stress management, peer pressure, or self-medication. Be prepared to help your patient with additional supports if appropriate.

Talk about cognitive effects

- The immediate effects normally lessen within about six hours of use, although cognitive impacts have been seen for up to 3 weeks after cessation.
- More evidence-based research on the cognitive impacts of cannabis is required. Below is a list of known acute and long-term effects that can be caused by cannabis use. While these effects are general, the severity may be impacted by THC levels, age of the person using, and frequency of use.
- Acute cognitive effects
  - Inattentiveness
  - Impaired judgement
  - Impaired decision making
  - Challenges in processing and retaining information
  - Impaired motor coordination and reaction time
- Long-term cognitive effects for regular users
  - Challenges with problem solving and learning
  - Challenges with inattentiveness
  - Challenges with memory
  - Challenges with processing complex information

#### 4. ADDITIONAL CONSIDERATIONS FOR UNDERAGE PATIENTS

##### Unique health risks for youth

- A young person's desire to use or try recreational cannabis may be similar or different from adults'. Youth have described a number of factors that motivate trying and using recreational cannabis, including: peer pressure; to experiment; to party or socialize; to cope with stress; to alter their perspective. Consider having a conversation with teens that is similar to the conversation you have about alcohol.
- The health risks of using recreational cannabis are higher for those who start using in their teens. These health risks include addiction, increased risk for developing mental illness, and impacts on cognitive development. There is strong evidence that demonstrates that recreational cannabis impacts brain development through early adulthood.
- Per the CMA guidelines, doctors continue to recommend that individuals under 25 should abstain from recreational cannabis.

##### Longer term health impacts

- Damage to the lungs and difficulty breathing: Cannabis smoke contains many of the same harmful substances as tobacco smoke. Also, like smoking cigarettes, smoking cannabis can damage the lungs and result in a cough or wheezing and other breathing symptoms.
- Affects mental health: Teens that start using cannabis early, use it regularly and continuously over time ("heavy" users) are more likely to experience anxiety, depression, psychosis, and schizophrenia. Stopping use improves these symptoms.
- May lead to addiction: Addiction to cannabis may have major negative impacts on everyday life and affect school, relationships with family and friends, sports, extra-curricular activities and volunteer work. Adolescents who use cannabis are at higher risk of developing addictions.

##### Shorter term health impacts:

- Impairs concentration and reaction time shortly after use: Cannabis diminishes concentration and attention, impairs coordination and slows reaction time. Using cannabis and driving can result in a car accident and serious injuries or death.
- Makes it harder to learn and remember things: Youth may have problems paying attention, remembering or learning things, and making decisions after using cannabis.
- Affects mood and feelings: Cannabis can make youth feel very anxious, panicked, sad, and fearful.
- Affects mental health: Cannabis can trigger a psychotic episode (not knowing what is real, experiencing paranoia, having disorganized thoughts, and in some cases having hallucinations).
- Worsens mental health effects when higher potency products are used: Using higher-potency cannabis products (such as concentrates like "shatter", dabs or wax) can worsen the mental health effects of cannabis use (such as paranoia and psychosis).

Resources:

- *Beyond the Basics Series: Cannabis*. Addictions Foundation of Manitoba. Available at [http://afm.mb.ca/wp-content/uploads/woocommerce\\_uploads/2013/03/CannabisBTB.pdf](http://afm.mb.ca/wp-content/uploads/woocommerce_uploads/2013/03/CannabisBTB.pdf)
- *Cannabis Evidence Brief: Is cannabis safe to use? Facts for youth aged 13-17 years*. Government of Canada, 2018. Available at [www.edu.gov.mb.ca/k12/cur/physhlth/docs/is-cannabis-safe-to-use.pdf](http://www.edu.gov.mb.ca/k12/cur/physhlth/docs/is-cannabis-safe-to-use.pdf)
- *Backgrounder on Cannabis*. Canadian Medical Association. Available at <https://www.cma.ca/Assets/assets-library/document/en/advocacy/submissions/backgrounder-cannabis-en.pdf>
- *CMA Submission: Legalization, Regulation and Restriction of Access to Marijuana*. Canadian Medical Association, August 2016. Available at <https://www.cma.ca/Assets/assets-library/document/en/advocacy/submissions/2016-aug-29-cma-submission-legalization-and-regulation-of-marijuana-e.pdf>
- *Cannabis Conversation Guide*. Ontario Medical Association, September 2018. Available at <https://www.oma.org/wp-content/uploads/Cannabis-Conversation-Guide.pdf>