

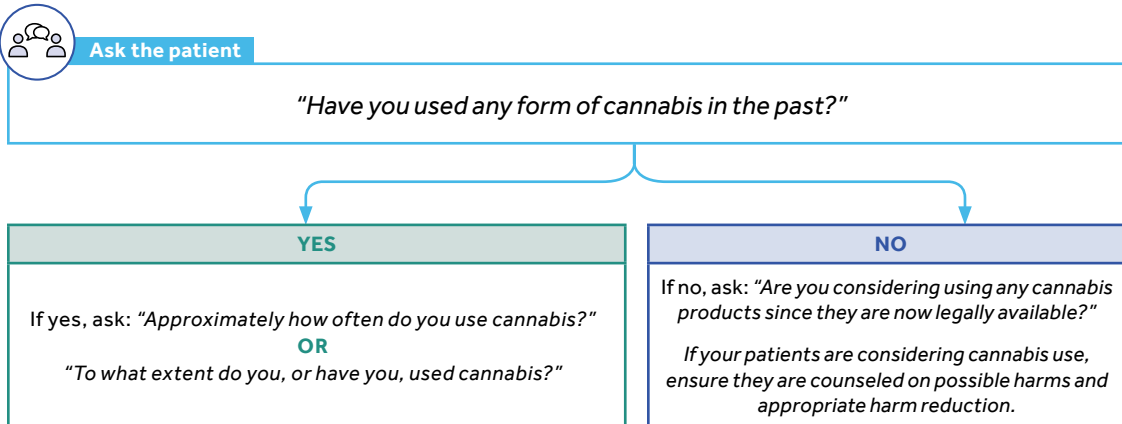
Introduction

The following resource has been developed to address the legalization of cannabis. The resource is designed to help primary care providers discuss non-medical cannabis with their adult (19+) patients, including education on the harms and benefits of cannabis, and general harm reduction strategies. This resource is not intended to address medical cannabis.

It is important to provide a safe, non-judgmental environment that allows for open dialogue. Counsel patients that use non-medical cannabis on harm reduction techniques and potential risk factors. If you identify problematic use or behaviour, screen for cannabis use disorder and/or cannabis related mental health issues.

Section A: Screening for cannabis use

Providers should screen all patients in their practice to ascertain their cannabis use. Patients who may have previously declined to inform their providers regarding their use may feel more comfortable disclosing cannabis use given legalization.



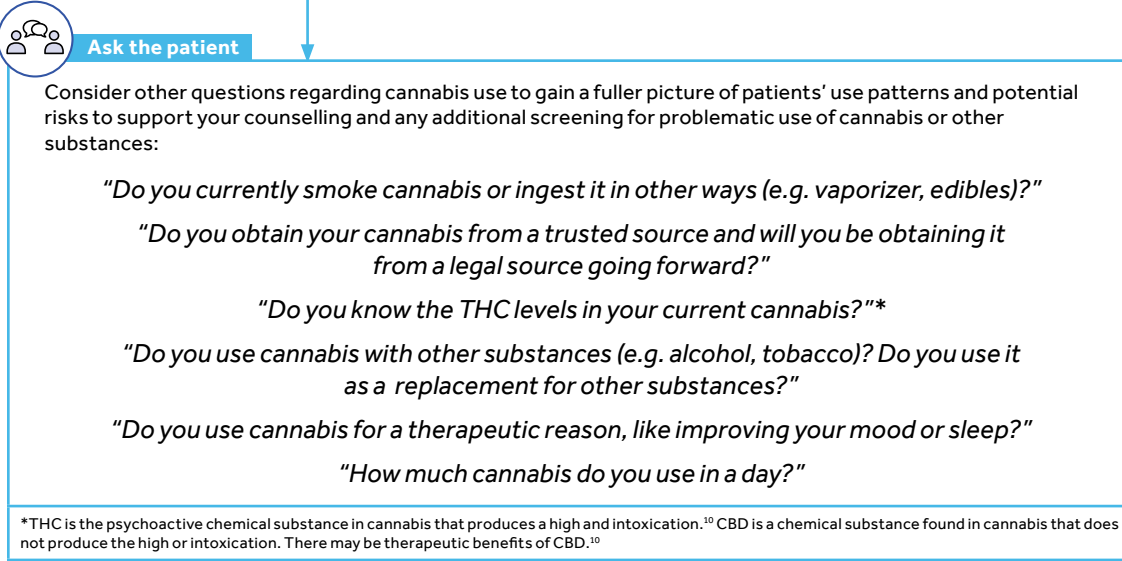
Talking points

“Smoking cannabis, like tobacco smoking, can have long-term risks to your health including respiratory, reproductive or memory issues.”

“There isn’t much reliable evidence to show cannabis is effective for most conditions. If you are using cannabis for other health issues, let’s discuss them and make sure we are managing them well with treatments that have more evidence.”

“While many people use cannabis to reduce their anxiety, it may in some cases make anxiety worse.”

“Using cannabis may make you feel more relaxed and you may feel your anxiety is reduced. This is only a short-term fix. As the cannabis wears off you may actually feel an increase in anxiety.”



*THC is the psychoactive chemical substance in cannabis that produces a high and intoxication.¹⁰ CBD is a chemical substance found in cannabis that does not produce the high or intoxication. There may be therapeutic benefits of CBD.¹⁰

! If you are concerned about potential problematic cannabis use, consider screening using the [Cannabis Use Disorder Identification Test \(CUDIT\)](#) or [Cannabis Abuse Screening Test \(CAST\)](#).^{1,2}

For more general screening to determine whether patients may be using other substances problematically, consider the [CAGE Adapted to Include Drugs](#) for adults or the [Brief Screener for Alcohol, Tobacco, and other Drugs](#) or the [CRAFFT Screening Tool for Adolescent Substance Abuse](#) for youth.^{3,4}

THERAPEUTIC INTENT

Patients may be using non-medical cannabis with therapeutic intent for conditions including chronic pain, arthritis or anxiety. In most cases, there is insufficient evidence to recommend the use of cannabis for these conditions. Ensure first- and second-line pharmacological and non-pharmacological management of patients’ other health conditions is trialled prior to discussions about medical or non-medical cannabis.

[Centre for Effective Practice primary care tools](#)
[Ontario Pain Management Resource](#)

Section B: Harm reduction and patient counselling^{5,6}

Ensure all patients, especially those considering new cannabis use, are aware of the potential risks prior to use.

HARM REDUCTION	HARM REDUCTION MEASURES TO COMMUNICATE TO PATIENTS ^{7,8}
<p>Cannabis is addictive, though not everyone who uses it will develop an addiction. For any patients using cannabis, or considering using cannabis, ensure that appropriate harm reduction measures are communicated. Applying harm reduction principles can help to reduce the risk of adverse effects or problematic use.</p> <p>For additional supports on harm reduction messages try the University of Victoria Take Care with Cannabis handout or CAMH's Cannabis Lower Risk Guidelines.</p>	<p>Advise your patients:</p> <p>Watch for symptoms of high cannabis toxicity, including:</p> <ul style="list-style-type: none">• Auditory and visual hallucinations.• Paranoid delusions.• Confusion and amnesia.• Rapid breathing, high heart rate and elevated blood pressure. <p>If these occur, call 911, local poison control centre or the emergency department of your nearest hospital.</p> <p>Try to defer use until the brain is fully developed, which is approximately age 25.</p> <p>Smoking burnt cannabis can be harmful to the lungs and respiratory system. Choose other methods such as vaporizers but be aware that they still come with risks.</p> <p>Avoid frequent (daily or near-daily) use.</p> <p>Avoid deep inhalation or holding your breath after inhaling.</p> <p>Avoid using large amounts, or cannabis with high potency THC (> 10% THC).</p> <p>Avoid synthetic cannabinoids (e.g. K2, spice).</p> <p>Ensure your cannabis products are safely stored to avoid accidental ingestion by pets or children.</p> <p>Consider tracking or monitoring your use to understand your use pattern, and when it may be affecting your daily life or becomes hard to control.</p> <p>Only use cannabis products purchased legally to ensure they are free from pesticides and contaminants.</p>

Advising special populations

For patients with specific health risk factors or comorbidities, cannabis use may increase adverse health events. Advise patients with specific health concerns accordingly:



MENTAL HEALTH⁵

If your patient or an immediate family member has a history of psychosis, their risk of cannabis-related psychosis is increased.

Cannabis use may exacerbate or trigger underlying mental health issues.



PRECONCEPTION AND MATERNAL HEALTH⁵

If your patient is pregnant, or is considering pregnancy, cannabis could harm their fetus or newborn. There is evidence that cannabis use may affect fertility in both men and women.

Use of cannabis during pregnancy increases risk of anemia and can lead to decreased birth weight, increased placement in neonatal care units, and child development and behavioural problems.

If your patient is breastfeeding, advise your patient that THC does pass into breastmilk and therefore to the baby but the impacts to the baby are unknown.



CARDIOVASCULAR

If your patient has previous cardiovascular events or cardiovascular risk factors, using dried and smoked cannabis could lead to elevated risk of stroke or adverse events.



SUBSTANCE USE

If your patients or an immediate family member has a history of substance use disorder, additional harm reduction and precaution should be exercised.

Concurrent use of cannabis and other substances, including alcohol, results in increased impairment-related risks. Tobacco is considered more addictive than cannabis. Combining tobacco and cannabis can result in an increased risk of developing addiction to tobacco which can lead to regular use of cannabis.



OLDER ADULTS

Older adults may have age-related changes that could impact the outcome of their cannabis use, even if they have used cannabis previously. Evidence is limited in the older adult population.



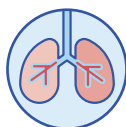
CANNABIS USE AND DRIVING

Cannabis use significantly increases risk of motor vehicle accidents – patients should wait at least 6-8 hours after using dry cannabis before driving or operating any heavy machinery and 8-12 hours if the patient ingests cannabis. This range may vary and is dependent on the amount and potency of the cannabis used, and the individual patient.

Ensure patients are aware of the current driving penalties in their province or territory if found under the influence of cannabis.

Driving penalties if found under the influence of cannabis in Ontario are available from: [Government of Ontario Cannabis Legalization - Driving](#)

Ensure patients are aware of the effects cannabis can have on driving: [Canadian Centre on Substance Use and Addiction Drug Impaired Driving Toolkit](#).



RESPIRATORY

Cannabis use, specifically dried and smoked cannabis, can exacerbate respiratory comorbidities and increase risk of additional respiratory concerns (e.g. chronic bronchitis, shortness of breath).



YOUTH AND YOUNGER ADULTS

Population-based studies have shown longer lasting cognitive effects including memory and attention problems in youth under the age of 25.

Ensure younger patients and their families are appropriately informed and supported [Canadian Centre for Substance Use and Addictions: The Effects of Cannabis Use During Adolescence, Talking Pot with Youth](#).

Section C: Benefits/harms for patients using cannabis^{5, 6}

Benefits & harms of cannabis use

Limited evidence is available about the benefits and harms of cannabis use. Some benefits and harms are known from research in medical cannabis:

BENEFITS*
Cannabis is medically indicated as a potential third-line treatment for:
<ul style="list-style-type: none"> • Refractory neuropathic or palliative pain • Chemotherapy induced nausea and vomiting • Spasticity in multiple sclerosis and spinal cord injury • Patients with these conditions may have reduced pain and symptom improvement (i.e. nausea and vomiting or spasticity)
Little evidence is available about the benefits for other conditions commonly cited for therapeutic non-medical use.
<small>*Although this resource is not intended to address the medical use of cannabis, providers may encounter patients who use cannabis for what they believe are medical reasons. Please ensure that they are aware of those conditions that cannabis is indicated for.</small>

HARMS*	
Patients using cannabis may experience:	
Cognitive issues (e.g. impaired memory)	NNH = 12
Disorientation or confusion	NNH = 15
Central nervous system effects	NNH = 4
Dizziness	NNH = 5
Speech disorders	NNH = 5
Numbness	NNH = 4
Ataxia or muscle twitching	NNH = 6
Some patients may experience serious psychiatric issues, including dissociation or acute psychosis.	NNH = 20
<small>*Given previous exposure and difficulty in conducting a true placebo control trial, it is thought that the harms may be underestimated in these findings.</small>	

ACUTE CANNABIS INTOXICATION¹¹
The physiologic signs of cannabis intoxication include: <ul style="list-style-type: none"> • Tachycardia • Increased blood pressure or, especially in the elderly, orthostatic hypotension • Increased respiratory rate • Conjunctival injection (red eye) • Dry mouth • Increased appetite • Nystagmus • Ataxia • Slurred speech
Cannabis intoxication in adolescents and adults also results in the following neuropsychiatric effects: <ul style="list-style-type: none"> • Mood, perception, thought content: Ingestion typically leads to feeling "high," marked by a euphoric, pleasurable feeling, and a decrease in anxiety, alertness, depression and tension. However, first-time cannabis users, as well as anxious or psychologically vulnerable individuals, may experience anxiety, dysphoria and panic. Increased sociability usually occurs during intoxication. Although dysphoric reactions may be accompanied by social withdrawal. Inexperienced users who ingest cannabis products may not be aware that effects may not be felt for up to three hours after use, which may cause them to continue to consume high potency products with an increased likelihood of dysphoria. • Cognition, psychomotor performance: Cannabis use slows reaction time and impairs attention, concentration, short-term memory and one's ability to assess risk. Acute cannabis use also impairs motor coordination and interferes with the ability to complete complex tasks that require undivided attention.

CANNABIS WITHDRAWAL¹¹
Symptoms are variable and may not relate to the quantity smoked or duration of use. Most common symptoms are: <ul style="list-style-type: none"> • Craving • Anxiety, restlessness, irritability • Anorexia (and weight loss) • Disturbed sleep and vivid dreams • Gastrointestinal tract symptoms (e.g. abdominal pain) • Night sweats • Tremor
Symptoms may last one to two weeks. There are no significant complications of withdrawal that would necessitate inpatient treatment. For more information on how to treat symptoms of cannabis withdrawal visit Government of South Australia SA Health

Section C Continued: Benefits/harms for patients using cannabis^{5,6}

Patient follow-up and continued use

As with other non-medical substances, keep apprised of your patients' use and related concerns. Consider following up more frequently with higher risk populations, including youth and patients with concurrent psychiatric or substance use disorders.

If problematic use or Cannabis Use Disorder is a concern, consider screening your patient using the [CUDIT](#) or [CAGE](#) for adults or the [Brief Screener for Alcohol, Tobacco, and other Drugs](#) or the [CRAFFT Screening Tool for Adolescent Substance Abuse](#) for youth.

Patients may also experience additional side effects as a result of cannabis use:

ADVERSE EVENTS	RECOMMENDED TREATMENT
<p>Cannabinoid Hyperemesis Syndrome (CHS)⁹</p> <p>Cannabinoid Hyperemesis Syndrome is a syndrome related to cannabis use that causes intermittent cycles of nausea and vomiting.</p> <p>There is limited evidence on the pathophysiology of CHS. However, it has been recognized with increasing frequency, particularly for patients who have used cannabis frequently and/or chronically.</p> <p>CHS may present similarly to Cyclical Vomiting Syndrome, with cyclic patterns of severe nausea and vomiting over months. Patients with CHS also generally report symptom relief with hot baths or showers.</p>	<p>Current treatment for CHS is abstinence and supportive care for hydration and anti-emesis.</p> <p>For patients presenting with CHS or cyclical vomiting symptoms, recommend patients stop using cannabis.</p>
<p>New or exacerbated mental health concerns (e.g. depression, anxiety)</p> <p>Patients who use cannabis may experience worsened or new mental health concerns (e.g. depression, anxiety, panic attacks), particularly with high potency THC (>10% THC) cannabis.</p> <p>The risk of developing psychosis or schizophrenia may increase when cannabis is used more frequently, especially when daily or near-daily use. Additionally, the use of high-potency cannabis product has been linked to an increased risk of psychosis.</p>	<p>Ensure mental health concerns are treated through non-cannabinoid medication and supportive care (e.g. CBT)</p> <p>Advise patients that frequent cannabis use may exacerbate mental health issues.</p> <p>Any persons who develop psychosis, especially those under age 25 years and those for whom the psychosis persists beyond several hours after use, should be advised to abstain from use, ideally long term or at least until the brain is fully developed.</p>
<p>Respiratory issues</p> <p>Patients who use cannabis frequently may experience increased incidences of respiratory or lung issues, including shortness of breath or chronic bronchitis.</p>	<p>Recommend patients with pre-existing or chronic respiratory issues abstain from cannabis use or consider alternative formulations.</p>
<p>Cardiovascular issues</p> <p>Limited evidence suggests association between elevated blood pressure and heart rate associated with smoked cannabis. This places patients at increased risk of cardiovascular events, including stroke.</p>	<p>Advise patients with cardiovascular risk factors or pre-existing cardiovascular events to abstain from cannabis use or consider alternative formulations.</p>

Supporting Materials

Drug Free Kids Canada - Cannabis Talk Kit - <https://www.drugfreekidscanada.org/wp-content/uploads/2017/06/34-17-1850-Cannabis-Talk-Kit-EN-10.pdf>
Clearing the Air About Marijuana Use - <http://www.ontariosdoctors.com/wp-content/uploads/2018/09/cannabis-myth-fact.pdf>
What You Should Know About Recreational Cannabis - http://www.ontariosdoctors.com/wp-content/uploads/2018/09/OMA_Cannabis-Infographic.pdf
Cannabis in Canada resources - <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/resources.html>
CAMH Cannabis Health Information & Resources - <https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/cannabis>
e-Couch - <https://ecouch.anu.edu.au/welcome>
Big White Wall - <https://www.bigwhitewall.com/V2/LandingV2.aspx>

References

- [1] Adamson SJ, Kay-Lambkin FJ, Baker AL, Lewin TJ, Thornton L, Kelly BJ, et al. An improved brief measure of cannabis misuse: the Cannabis Use Disorders Identification Test-Revised (CUDIT-R). *Drug Alcohol Depend.* 2010 Jul 1;110(1-2):137-43.
- [2] Legleye S, Guignard R, Richard J-B, Ludwig K, Pabst A, Beck F. Properties of the Cannabis Abuse Screening Test (CAST) in the general population. *Int J Methods Psychiatr Res.* 2015 Jun;24(2):170-83.
- [3] Brown RL, Rounds LA. Conjoint screening questionnaires for alcohol and other drug abuse: criterion validity in a primary care practice. *Wis Med J.* 1995;94(3):135-40.
- [4] Knight, J.R., Sherritt, L., Shrier, L.A., Harris, S.K. & Chang, G. (2002). Validity of the CRAFFT Substance Abuse Screening Test Among Adolescent Clinic Patients. *Archives of Pediatrics & Adolescent Medicine*, 156, 607-614.
- [5] Fischer B, Russell C, Sabioni P, van den Brink W, Le Foll B, Hall W, et al. Lower-risk cannabis use guidelines: A comprehensive update of evidence and recommendations. *AJPH Policy* 2017;107(8):e1-12 Available from: <https://crism.ca/wp-content/uploads/2018/03/LRCUG-2017.pdf>
- [6] Allan GM, Ramji J, Perry D, Ton J, Beahm NP, Crisp N, et al. Simplified guideline for prescribing medical cannabinoids in primary care. *CFP* 2018;64:111-120. Available from: <http://www.cfp.ca/content/cfp/64/2/111.full.pdf>
- [7] Canadian Nurses Association [Internet]. Harm reduction for non-medical cannabis use [cited 2018 Sept 1]. Available from: <https://www.cna-aic.ca/~media/cna/page-content/pdf-en/harm-reduction-for-non-medical-cannabis-use.pdf?la=en>
- [8] Hall W, Fischer B. "Chapter 8: Harm reduction policies for cannabis" in Harm reduction: evidence, impacts and challenges, European Monitoring Centre for Drugs and Drug Addiction. (2010). Available from: http://www.emcdda.europa.eu/publications/monographs/harm-reduction_en
- [9] Sorensen CJ, DeSanto K, Borgelt L, Phillips KT, Monte AA. Cannabinoid Hyperemesis Syndrome: Diagnosis, Pathophysiology, and Treatment—a Systematic Review. *J Med Toxicol.* 2017 Mar;13(1):71-87.
- [10] Health Canada [Internet]. About cannabis [cited 2018 Sept 1]. Available from: https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/about.html?utm_source=google&utm_medium=cpc_en&utm_content=marijuana_3&utm_campaign=cannabis-18
- [11] UpToDate [Internet]. Cannabis (marijuana): Acute intoxication [cited 2018 Sept 10]. Available from: <https://www.uptodate.com/contents/cannabis-marijuana-acute-intoxication>
- [12] Government of South Australia SA Health [Internet]. Cannabis Withdrawal Management [cited 2018 Sept 10]. Available from: <https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/clinical+resources/clinical+topics/substance+misuse+and+dependence/substance+withdrawal+management/cannabis+withdrawal+management>

This Resource was developed as part of the Knowledge Translation in Primary Care Initiative, led by the Centre for Effective Practice in collaboration with the Ontario College of Family Physicians and the Nurse Practitioners' Association of Ontario. Clinical leadership for the development of the Resource was provided by Dr. Jonathan Bertram CCFP and was subject to external review by health care providers and other relevant stakeholders. This Resource was funded by the Government of Ontario as part of the Knowledge Translation in Primary Care Initiative.

This Resource was developed for licensed health care professionals in Ontario as a guide only and does not constitute medical or other professional advice. Health care professionals are required to exercise their own clinical judgement in using this Resource. Neither the Centre for Effective Practice ("CEP"), Ontario College of Family Physicians, Nurse Practitioners' Association of Ontario, Government of Ontario, nor any of their respective agents, appointees, directors, officers, employees, contractors, members or volunteers: (i) are providing medical, diagnostic or treatment services through this Resource; (ii) to the extent permitted by applicable law, accept any responsibility for the use or misuse of this Resource by any individual including, but not limited to, primary care providers or entity, including for any loss, damage or injury (including death) arising from or in connection with the use of this Resource, in whole or in part; or (iii) give or make any representation, warranty or endorsement of any external sources referenced in this Resource (whether specifically named or not) that are owned or operated by their parties, including any information or advice contained therein.



Non-Medical Cannabis Resource is a product of the Centre for Effective Practice. Permission to use, copy, and distribute this material is for all non-commercial and research purposes is granted, provided the above disclaimer, this paragraph and the following paragraphs, and appropriate citations appear in all copies, modifications, and distributions. Use of the Non-Medical Cannabis Resource for commercial purposes or any modifications of the Resource are subject to charge and must be negotiated with the Centre for Effective Practice (Email: info@effectivepractice.org).

For statistical and bibliographic purposes, please notify the Centre for Effective Practice (info@effectivepractice.org) of any use or reprinting of the Resource. Please use the below citation when referencing the Resource:

Reprinted with Permission from Centre for Effective Practice. (October 2018). Non-Medical Cannabis Resource: Ontario. Toronto: Centre for Effective Practice.

Developed by:



In collaboration with:



Ontario College of Family Physicians

