

CANNABIS IN PRIMARY CARE

Kelly Grindrod BScPharm
PharmD MSc
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LEARNING OBJECTIVES

By the end of the session, you should be able to:

- Describe the general indications for medical cannabis
- Recognize the common adverse effects of medical cannabis
- Adjust the THC/CBD concentrations according to desired effects and adverse reactions
- Support prescribers in prescribing cannabis

OUTLINE OF TOPICS

- **Cannabis prescribing:**
 - Initiating and up-titrating cannabis
 - Selecting an appropriate THC:CBD ratio
 - Cannabis prescription
 - Medical cannabis guidelines
- **General considerations:**
 - Cannabis side effects,
 - Onsets of effect/duration of action for different formulations
 - Lower risk cannabis use guidelines
 - Addiction & withdrawal side effects
 - Asking patients about cannabis use

PHARMACY5IN5.CA CANNABIS MODULE

1600 have accessed the module

Average years in practice: 15

Female 72%

Trained in Canada 73%

Licensed pharmacists 69%

Community pharmacy 71%

Hospital pharmacy 15%

Ontario 81%



Cannabis

A quick review of marijuana and pharmaceutical cannabinoids for medical and recreational use.

PHARMACY5IN5.CA CANNABIS MODULE

Quiz Type	Average Score
Fast Facts	81%
Harm Reduction	75%
Medicinal Use	75%
Adverse Effects	74%
Prescribing	63%

Drug Interactions	49%
Routes of Admin	40%



Cannabis

A quick review of marijuana and pharmaceutical cannabinoids for medical and recreational use.

PHARMACY5IN5.CA CANNABIS MODUL



Reflection Question (Pharmacists only)	Yes (%)
Have you ever asked specifically about cannabis use during medication reviews to assess for safe use and drug interactions (i.e., asking “When was the last time you used cannabis”)?	18%
Have you checked to ensure your pharmacy software checks for drug interactions with cannabis?	14%
Have you ever recommended that a patient who smokes cannabis switch to vaporized or edible cannabis?	12%
Have you ever entered cannabis into a patient’s profile to ensure your computer system can check for cannabis drug interactions?	9%
Prior to doing this module, were you aware of the "Simplified guidelines for prescribing medical cannabinoids in primary care"?	7%
Have you ever assessed a patient for signs/symptoms of a cannabis use disorder?	3%

Cannabis 101

For recreational or medicinal use. Also known as marijuana, pot, bud, and weed.



How it's Used

- Inhaled starts working within 10 min and effects lasts 2-4h (but can be up to 24h)
- Edibles start working at around 1h and effects last 4-6h (but can be up to 24h)
- Vaping and edibles likely safer than smoking

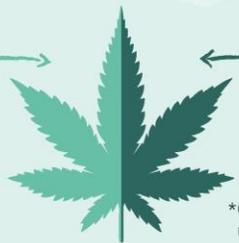
When to Avoid

- Pregnancy and breastfeeding
- Personal/family history of psychosis
- Several hours before driving
- Allergy to cannabis
- Under age 25



Tetrahydrocannabinol (THC)

- Makes some people high
- Stimulates appetite
- More cognitive side effects than CBD (e.g., confusion, drowsiness)



Cannabidiol (CBD)

- Does not make people high
- Many potential medicinal uses

*Cannabis has hundreds of other ingredients with unknown effects

What to Watch For

Side effects are higher for cannabis than most prescription medicines

Very common (10-30%)

- Intensely happy/uneasy
- Sedation/relaxation
- Difficulty speaking
- Numbness
- Disconnected thoughts
- Muscle twitching
- Changes in heart rate/blood pressure

Common (1-10%)

- Impaired memory, confusion
- Blurred vision/visual hallucination
- Loss of touch with reality/self
- Problematic cannabis use (e.g., difficulty cutting down, continued use, despite harm)

Uncommon but serious (<1%)

- Intense/prolonged vomiting
- Loss of motivation



Long term side effects largely unknown

Reduce Harm

- Avoid driving for several hours after use
- Vaporizing/edibles preferred over smoking
- Keep away from children, especially edibles
- Delay age of first use as long as possible

Practical Tips for Medical Cannabis

Includes medical marijuana and pharmaceutical cannabinoids



Reasons for Use

Most evidence is from pharmaceutical cannabinoids

- May help in chronic nerve pain, palliative care, nausea and vomiting from chemotherapy, and spasticity from multiple sclerosis
- May help drug-resistant seizure disorders in kids
- Very little evidence to support use for anxiety, general nausea/vomiting, or other pain conditions

Prescribing for Medical Use

- Try pharmaceutical cannabinoids first (nabilone, nabiximols)
- Don't need to feel high for effective symptom management
- Avg use is 1.5-3g of herbal cannabis/day
- 1 joint ≈ 0.5g of cannabis

Dosing Medical Marijuana

- Effects vary considerably based on strain
- Start with lower THC, limit to <9%
- **Inhaled:** start with 1 puff and wait 10 min to assess effect, repeat as needed
- **Edible:** start with 1 small bite and wait 1 hour to assess effect, repeat as needed



http://www.cfpc.ca/Release_Dried_Cannabis_Prelim_Guidance/

	Inhaled	Edible	Pharmaceutical Cannabinoids
Product	Plant/oil that is smoked or vaporized	Plant/oil added to food/drink	Nabilone, nabiximols
Onset of effect	5-10 min	Up to 60 min	1-2h
Peak effect	10-20 min	2-4h	2-4h
Duration of effect	2-4h (up to 24h)	Adults: 4-6h (up to 24h) Kids: 6-12h (up to 36h)	12h (up to 24h)
Can impair driving	Yes	Yes	Yes

Managing Side Effects

- Reduce dose (frequency, potency, amount) or stop
- Reduce THC if cognitive side effects
- Tolerance may develop over weeks to months
- Stop if signs of problematic cannabis use
- Withdrawal symptoms include intense anxiety/fatigue 1-2 days after stopping

Cannabis Drug Interactions

- Smoked cannabis induces CYP1A2 (e.g., may decrease effect of olanzapine, chlorpromazine)
- Inhibitors of CYP3A4 (e.g., ketoconazole) may result in **more effects** from THC or CBD
- Inducers of CYP3A4 (e.g., rifampin, St. John's wort, phenytoin) may result in **less effects** from THC or CBD
- Clinical importance of other interactions unclear

THE BASICS



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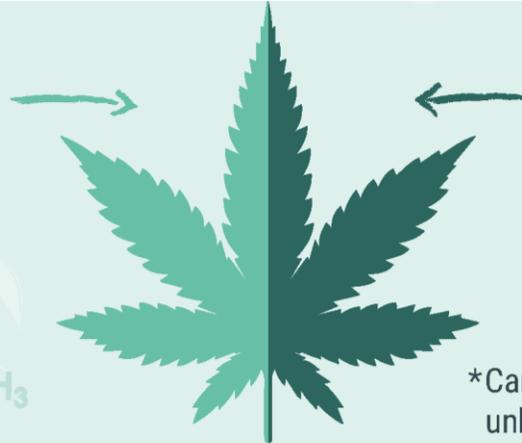


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CANNABASICS (CANADIAN PUBLIC HEALTH ASSOCIATION)

[HTTPS://WWW.CPHA.CA/CANNABASICS](https://www.cpha.ca/cannabasics)



Cannabasics

This information package is a set of fact sheets on cannabis for health and social service providers. It provides a basic overview of common cannabis plants and products, methods of consumption as well as information to better understand consumption and harm reduction. Each fact sheet is comprised of a high level overview with graphics followed by a detailed overview with links and references.

CONTENTS

Plant and Products



Information related to the cannabis plant, derivatives, types, main active ingredients, most common forms and products.

1-3

Methods of Consumption



Details related to the more common delivery methods.

4-6

Understanding Consumption



Details about some of the primary reasons people consume cannabis

7-9

Harm Reduction



Information about some of the side effects associated with cannabis and

10-12

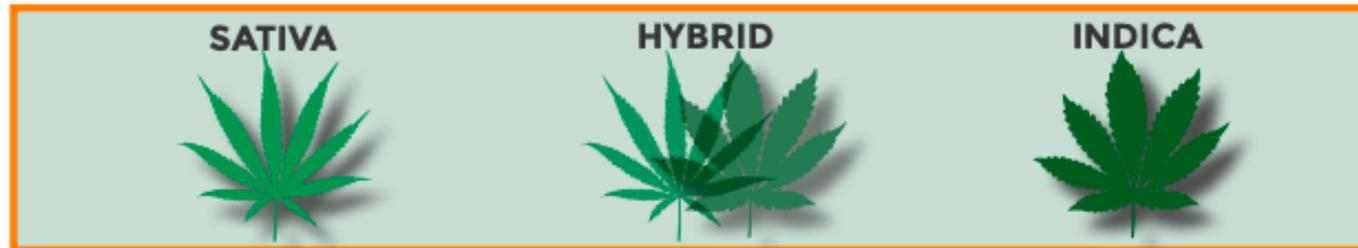


Cannabasics

Plant and Products



Cannabis refers to the plant *Cannabis sativa* and has many forms from hash to hemp oils. There are several plant types that consumers may indicate they are accessing including sativa, indica, and hybrids, which are marketed as having different physiological effects.



Cannabis has over 100 chemical compounds called cannabinoids

Cannabinoids interact with the human endocannabinoid system to produce a broad range of physiological effects. The two most commonly known active ingredients are:

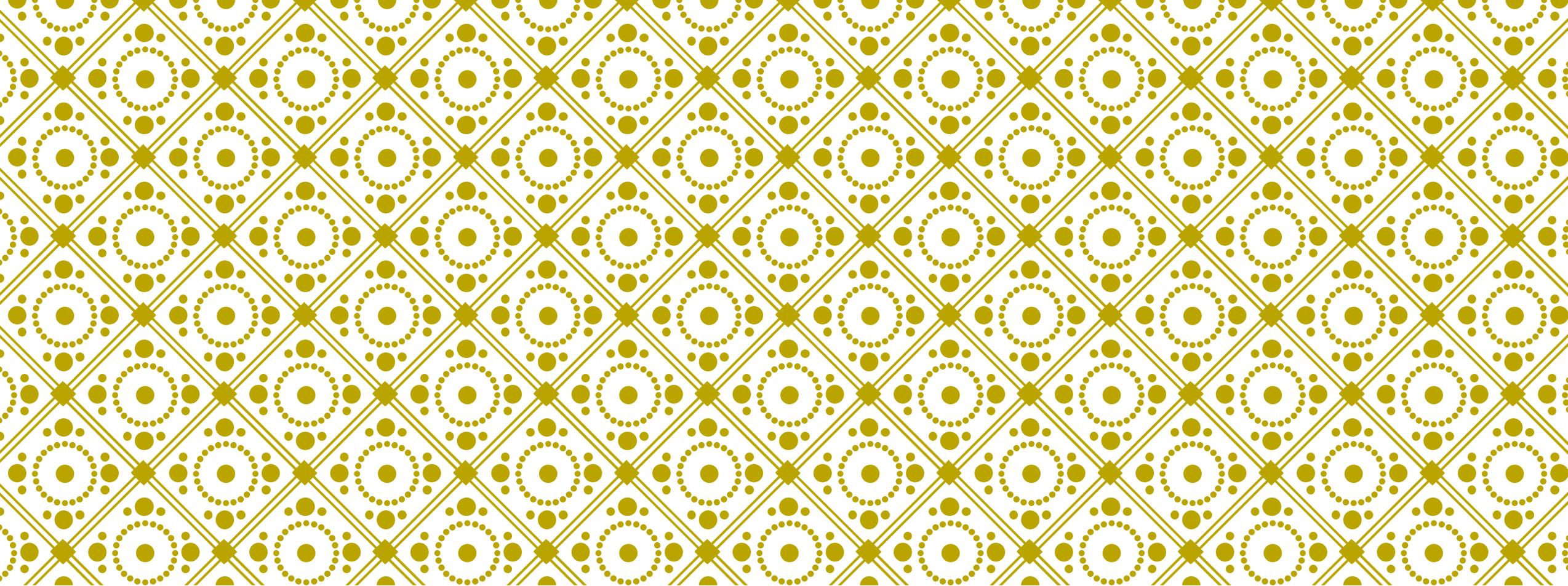
CBD is most known for analgesic, anti-inflammatory and anti-anxiety properties without the intoxicating effects (the "high")

NON-INTOXICATING



THC is most known for the "high" and for some therapeutic uses

INTOXICATING (GETS YOU "HIGH")



PRESCRIBING

Medical Cannabis

Practical Tips for Medical Cannabis

Includes medical marijuana and pharmaceutical cannabinoids



Reasons for Use Most evidence is from pharmaceutical cannabinoids

- May help in chronic nerve pain, palliative care, nausea and vomiting from chemotherapy, and spasticity from multiple sclerosis
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<i>Can impair driving</i>	Yes	Yes	Yes

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GUIDELINES (CAN FAM PHYSICIAN 2018; 64: 111-20.)

CLINICAL PRACTICE GUIDELINES

Simplified guideline for prescribing medical cannabinoids in primary care

G. Michael Allan MD CCFP Jamil Ramji Danielle Perry Joey Ton PharmD Nathan P. Beahm PharmD
Nicole Crisp RN MN NP-Adult Beverly Dockrill RN Ruth E. Dubin MD PhD FCFP DCAPM Ted Findlay DO CCFP FCFP
Jessica Kirkwood MD CCFP Michael Fleming MD CCFP FCFP Ken Makus MD FRCPC Xiaofu Zhu MD FRCPC
Christina Korownyk MD CCFP Michael R. Kolber MD CCFP MSc James McCormack PharmD Sharon Nickel
Guillermina Noël MDes PhD Adrienne J. Lindblad ACPR PharmD

Abstract

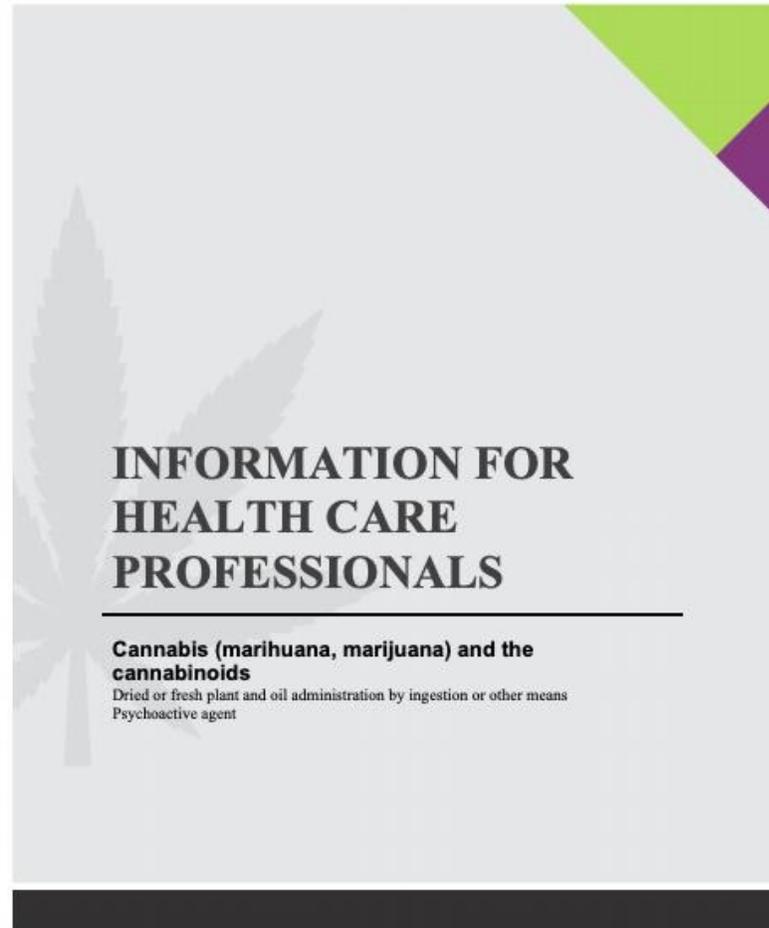
Objective To develop a clinical practice guideline for a simplified approach to medical cannabinoid use in primary care; the focus was on primary care application, with a strong emphasis on best available evidence and a promotion of shared, informed decision making.

Methods The Evidence Review Group performed a detailed systematic review of 4 clinical areas with the best evidence around cannabinoids: pain, nausea and vomiting, spasticity, and adverse events. Nine health professionals (2 generalist family physicians, 2 pain management-focused family physicians, 1 inner-city family physician, 1 neurologist, 1 oncologist, 1 nurse practitioner, and 1 pharmacist) and a patient representative comprised the Prescribing Guideline Committee (PGC), along with 2 nonvoting members (pharmacist project managers). Member selection was based on profession, practice setting, location, and lack of financial conflicts of interest. The guideline process was iterative through content distribution, evidence review, and telephone and online meetings. The PGC directed the Evidence Review Group to address and provide evidence for additional questions as needed. The key recommendations were derived through consensus of the PGC. The guideline was drafted, refined, and distributed to a group of clinicians and patients for feedback, then refined again and finalized by the PGC.

Recommendations Recommendations include limiting medical cannabinoid use in general, but also outline potential restricted use in a small subset of medical conditions for which there is some evidence (neuropathic pain, palliative and end-of-life pain, chemotherapy-induced nausea and vomiting, and spasticity due to multiple sclerosis or spinal cord injury). Other important considerations regarding prescribing are reviewed in detail, and content is offered to support shared, informed decision making.

GUIDELINES (HEALTH CANADA 2018)

[HTTPS://WWW.CANADA.CA/EN/HEALTH-CANADA/SERVICES/DRUGS-MEDICATION/CANNABIS/INFORMATION-MEDICAL-PRACTITIONERS/INFORMATION-HEALTH-CARE-PROFESSIONALS-CANNABIS-CANNABINOIDS.HTML](https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/information-medical-practitioners/information-health-care-professionals-cannabis-cannabinoids.html)



COMPREHENSIVE REPORT

(NATIONAL ACADEMIES OF SCIENCES, ENGINEERING, AND MEDICINE)

[HTTP://NATIONALACADEMIES.ORG/HMD/REPORTS/2017/HEALTH-EFFECTS-OF-CANNABIS-AND-CANNABINOIDS.ASPX](http://nationalacademies.org/HMD/Reports/2017/Health-Effects-of-Cannabis-and-Cannabinoids.aspx)



RXTX CANNABIS MONOGRAPH ([HTTPS://WWW.MYRXTX.CA/](https://www.myrxtx.ca/))

RxTx Drugs ▾ Conditions ▾ Resources ▾ Advisories ▾ Lexi-Interact

Welcome University of Wate... | Français | ?

All ▾ Cannabis

Home Results CPS Cannabis (CPhA Monograph)

TABLE OF CONTENTS

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- Adverse Reactions
- Drug Interactions
- Dosage and Administration
- Overdosage
- Action and Clinical Pharmacology
- Storage and Stability
- Supplied
- Suggested Citation

Cannabis

cannabis
Cannabinoid

 CPhA Monograph

Date of Preparation: April 2018

This monograph has been compiled by CPhA and reviewed by experts. The reader is referred to the [CPS Editorial Policy](#) for more information.

Introduction

Cannabis is not classified as a Natural Health Product (NHP) nor as a drug and thus no Drug Identification Number (DIN) or Natural Product Number (NPN) is available. This monograph discusses plant-based **cannabis** that is not available as a pharmaceutical product (e.g., nabiximols) nor as a synthetic cannabinoid (e.g., nabilone). The term "**cannabis**" will be used to represent the dried **cannabis** plant as well as **cannabis**-derived oil extracts.

Delta⁹-tetrahydrocannabinol (THC) and cannabidiol (CBD) are the 2 main psychoactive components within **cannabis**; however, other compounds found within the **cannabis** plant (e.g., cannabinol, flavonoids, terpenoids) may play a role in the physiologic effects of **cannabis** (for more information, see [Action and Clinical Pharmacology](#)).^[1] Each strain of **cannabis** has a specific THC-to-CBD ratio; this leads to different physiologic effects based on the concentration of THC and CBD. Patients can utilize these ratios based on their indication; the most effective product for one indication may not necessarily be effective for another indication. Updates to the monograph will occur as more information becomes available.

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CANADIAN PHARMACISTS ASSOCIATION ASSOCIATION DES PHARMACIENS DU CANADA

STEP 1: IDENTIFY THE INDICATION

✓ Evidence of likely effect

- Refractory chronic pain
- Nausea/vomiting from chemo
- Spasticity
 - Multiple sclerosis
 - Spinal cord injury
- Drug-resistant pediatric seizure
 - Dravet syndrome
 - Lennox-Gastaut syndrome

Other potential uses where more evidence is needed

- Anxiety, depression
- Sleep
- Tourette's syndrome
- Palliative care
- Cachexia (AIDS/HIV, anorexia, cancer)
- Cancer pain
- Parkinson's Disease (dystonia)
- Glaucoma

Unlikely to have effect/may worsen

- Acute pain
- Headache
- PTSD

STEP 2: CHOOSE A FORMULATION

Prescription Products

- Nabilone
- Dronabinol (not in Canada)
- Nabiximols

Plant Based Products (fresh, dried)

- Indica, sativa, hybrid
- THC %, CBD %

Cannabis Oils

- Epidiolex (98% CBD commercial product, not in Canada)

Edibles

WHAT FORMULATIONS HAVE (SOME) EVIDENCE?

	Nabilone	Dronabinol	Nabiximols	CBD Oil	Plant
Refractory chronic neuropathic pain		✓	✓		✓
Refractory spasticity (and pain) from multiple sclerosis (MS) or spinal cord injury			✓		?
Chemotherapy induced nausea/vomiting (CINV)	✓				
Certain drug-resistant pediatric seizure disorders				✓	
Sleep (sleep apnea, fibromyalgia, chronic pain, MS)	?	?	?		?
HIV/AIDS appetite		✓			?
Anxiety (HIV/AIDS, MS, chronic pain)		?	?		?
Palliative Care	✓	✓	✓		

STEP 3 (PLANT): DOSE, QUANTITY & DURATION

Prescribers don't typically choose product

- Patient chooses licensed producer (from Health Canada list) <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/industry-licensees-applicants/licensed-cultivators-processors-sellers.html>
- Producer helps patient choose product
- Prescriber may specify THC concentration (e.g., <10%), but not common

Average daily quantity: ~3g/day (90g/month)

- For oils, licensed producer uses their conversion to convert from grams/day of dried product to oil equivalent

Duration: Maximum 12 months



STEP 4 (PLANT): WRITE THE PRESCRIPTION

Step 2a: Prepare prescription and submit it directly to the licensed producer

Step 2b: Patient registers with the licensed producer

Step 2c: Patient chooses fresh, dried, or oil (or edibles in future)

Step 2d: Product is shipped by mail or picked up by the patient

***Note, there may be the option of compassionate pricing for low income patients*



Medical Document Authorizing the use of Cannabis for Medical Purposes under the Access to Cannabis for Medical Purposes Regulations

Help on accessing alternative formats, such as Portable Document Format (PDF), Microsoft Word and PowerPoint (PPT) files, can be obtained in the [alternate format help section](#).

For related information, please see Health Canada's [Information for Health Care Practitioners](#).

This document may be completed by the applicant's health care practitioner as defined in the Access to Cannabis for Medical Purposes Regulations (ACMPR). A health care practitioner includes medical practitioners and nurse practitioners. In order to be eligible to provide a medical document, the health care practitioner must have the applicant for the medical document under their professional treatment. Regardless of whether or not this form is used, the medical document must contain all of the required information, (see in particular s. 8 of the ACMPR).

Your health care practitioner may use this form to provide you authorization to use cannabis for medical purposes. Your health care practitioner may use a different form, but the required information as per section 8 of the ACMPR (outlined below) must be included.

Access via Health Canada licensed producers: Should you choose to access cannabis from a licensed producer, this form must be sent directly to the licensed producer of your choice. You may choose any licensed producer who is authorized to sell to registered clients. Please see the Health Canada website for a list of licensed producers. Should you wish to switch from one Health Canada licensed producer to another a new medical document will be required as licensed producers are required to keep the original medical document on file.

Access via production for own medical purposes: Should you choose to produce your own cannabis, or designate someone to produce it for you, the original of this document must be sent to Health Canada with your Registration Application Form.

Patient's Given Name and Surname:

Patient's Date of Birth (DD/MM/YYYY):

Daily quantity of dried marihuana to be used by the patient: grams / day

The period of use is day(s) or week(s) or month(s).

Note: The period of use cannot exceed one year

Health care practitioner's given name and surname:

Profession:

Health care practitioner's business address:

Full business address of the location at which the patient consulted the health care practitioner (if different than above):

Phone Number:

Fax Number (if applicable):

Email Address (if applicable):

Province(s) Authorized to Practice in:

Health Care Practitioner's Licence number:

By signing this document, the health care practitioner is attesting that the information contained in this document is correct and complete.

Health Care Practitioner's Signature: _____

Date Signed (DD/MM/YYYY):

Important Note for Authorizing Health Care Practitioner

If the patient chooses to produce cannabis for their own medical purposes or you are not submitting this document via secure fax do not initial the box below.

If your patient chooses to access cannabis for medical purposes via a licensed producer, this medical document can be submitted from the health care practitioner's office to the licensed producer by secure fax. If you choose to submit the medical document by secure fax, initial the statement below to acknowledge agreement.

I, the health care practitioner, acknowledge that the faxed medical document is now the original medical document and that I have retained a copy of this document for my records only.

Initial here:



PRESCRIBING

Prescribing for Medical Use

- Try pharmaceutical cannabinoids first (nabilone, nabiximols)
 - Don't need to feel high for effective symptom management
-
- Avg use is 1.5-3g of herbal cannabis/day
 - 1 joint ≈ 0.5g of cannabis

Dosing Medical Marijuana

- Effects vary considerably based on strain
- Start with lower THC, limit to <9%
- **Inhaled:** start with 1 puff and wait 10 min to assess effect, repeat as needed
- **Edible:** start with 1 small bite and wait 1 hour to assess effect, repeat as needed

http://www.cfpc.ca/Release_Dried_Cannabis_Prelim_Guidance/



ONSET & DURATION OF EFFECT

	Inhaled	Edible	Pharmaceutical Cannabinoids
<i>Product</i>	Plant/oil that is smoked or vaporized	Plant/oil added to food/drink	Nabilone, nabiximols
<i>Onset of effect</i>	5-10 min	Up to 60 min	1-2h
<i>Peak effect</i>	10-20 min	2-4h	2-4h
<i>Duration of effect</i>	2-4h (up to 24h)	<i>Adults:</i> 4-6h (up to 24h) <i>Kids:</i> 6-12h (up to 36h)	12h (up to 24h)
<i>Can impair driving</i>	Yes	Yes	Yes

PRESCRIBING PRINCIPLES: START LOW, GO SLOW

Clinicians

- Can request product with lower THC (<9%)

Patient Education

- Smoked/vaped: Inhale 1 puff, wait 10 min to assess affect
- Oral: Ingest 1 dose (e.g., 0.1 mL of oil or 1 bite of a baked good), wait 30-60 min (preferably up to 3hrs) to assess effect
- Increase dose over days, not hours

DOSING CANNABINOID PRODUCTS

	Nabilone	Dronabinol	Nabiximols	CBD Oil (Rx)	Dried Cannabis
Product	Synthetic THC	Synthetic THC	THC/CBD extract	98% CBD extract	THC/CBD
Lowest dose	0.2mg	2.5mg	2.7mg THC/2.5mg CBD (1 spray)	5mg/kg/day	7mg THC/day (75mg of 9% THC)
Average daily dose	1-4mg	20mg	8-12 sprays/day		60mg THC/day (680mg of 9% THC)
Maximum daily dose	6mg	40mg	43.2mg THC/40mg CBD (16 sprays)	20mg/kg/day	256 mg THC (3200mg of 1-8% THC)

Source: <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/information-medical-practitioners/cannabis-medical-purposes-regulations-daily-amount-fact-sheet-dosage.html>

QUANTITIES OF CANNABIS

Dried cannabis for smoking OR oral ingestion

- Studies show an average of 1.5-3 grams/day
 - Smoking/vaping
 - Edibles
 - Teas
- Tends to be the same amount per day

No info on quantities for ointments, creams, lotions, balms, oils, salves

Source: <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/information-medical-practitioners/cannabis-medical-purposes-regulations-daily-amount-fact-sheet-dosage.html>

Instructions

Physician:

1. Completes and signs the **Medical Document**
2. Sends the *original Medical Document* to [redacted] by mail, courier or electronically*
3. Keeps a photocopy of the **Medical Document** to verify the dose

Applicant/Patient:

1. Completes and signs **Application Form A, B, or C.**
2. Sends the **Application Form** to [redacted] by fax, email, courier or mail.
3. A scan of the signed **Application Form** will be accepted

* The **Medical Document** and **Application Form** can be mailed to [redacted] either the applicant or the physician, and can be sent together or separately. Electronic forms must be sent from the medical office. See Part 4 for details.

Accessing and submitting forms



Medical Cannabis Products

[redacted] Cannabis

	THC	CBD
22:1	22.0%	less than 1.0%
17:1	17.0%	less than 1.0%
15:5	15.0%	5.0%
12:0	12.5%	less than 0.5%
9:9	9.0%	9.5%
4:10	4.0%	10.0%
1:13	0.7%	13.0%

[redacted] Oil

	THC	CBD
18:0	18.3 mg/ml	0.2 mg/ml
10:10	9.8 mg/ml	9.9 mg/ml
1:20	1.0 mg/ml	20.0 mg/ml

Part 1 - Health Care Practitioner information

First name: JANE Last name: DOE
 Profession: FAMILY PHYSICIAN Medical licence number: 32156
Identify licensing province if different than that of your clinic.
 Clinic/Business name: AVENUE MEDICAL CLINIC
 Street address: 2019 AVENUE D SOUTH
 City: SASKATOON Province: Saskatchewan Postal code: S7W1L2
 Telephone: 306-306-2020 Ext. 3 Fax: 306-630-1920 Email: AVENUECLINIC@SASKTEL.CA
Address of consultation (if different from business location)
 Street address:
 City: Province: Postal code:

Part 2 - Patient information

First name: JAMES Last name: SMITH Birthdate: 03/21/1957
MM/DD/YYYY
 Contact Information (phone and/or email): 306-262-1112

Part 3 - Physician directions

Default will be full product selection. Please indicate specific instructions below if applicable:
i.e. Patient may access cannabis oil only, or THC under 20%.

CANNABIS OIL ONLY

2.4 grams per day
Average Authorized Amount Per Patient per Health Canada market data March 31, 2017.

Part 4 - Authorization

I (the Health Care Practitioner) choose to submit the Medical Document electronically directly to [redacted] acknowledge that this digital Medical Document is now the original, and the completed form must be kept as a copy in my records. By initialing, I attest that this Medical Document will not be provided to another Licensed Producer or to the patient.

Health care practitioner initial here [redacted] if submitting electronically

Submit Medical Document
 Secure fax: 1-844-331-8920

Part 5 - Authorization

Medical diagnosis: NEUROPATHIC PAIN
 The Applicant may access 3 grams of medical marijuana per day for 12 months.

Note: Applicant can possess a maximum of 150g or 30 times their daily amount, whichever is less. Under the Access to Cannabis for Medical Purposes Regulations, maximum authorization is a period of 12 months and begins the day the Medical Document is signed by the HCP.

I, (the Health Care Practitioner) attest that the information in this document is correct and complete.

Health Care Practitioner's signature: _____ Date: _____
MM/DD/YYYY

For office use only

Verified by: _____
 Date (time if by phone): _____
 Employee: _____

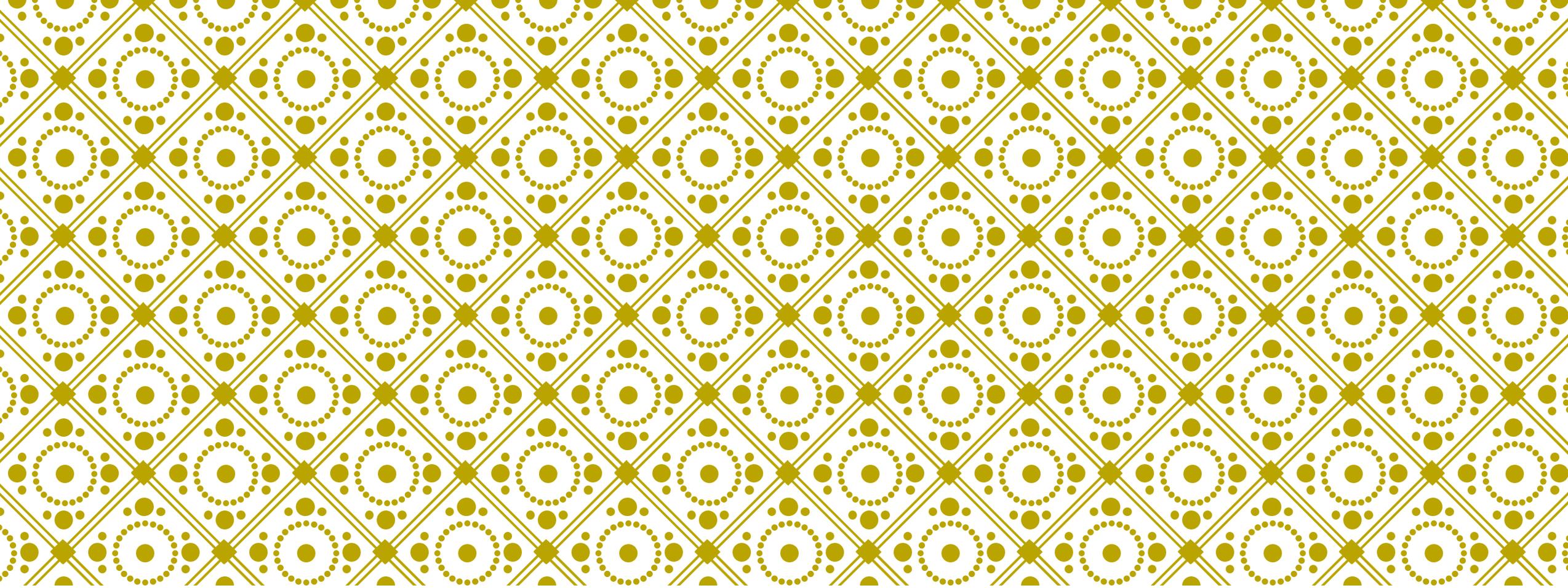
LEGAL/REGULATORY LIMITS: OIL & DRIED

Storage at home:

- No limit (as with recreational cannabis)

Maximum possession in public for medical cannabis:

- Lesser of 150grams/person or up to 30 times the daily amount prescribed
- Limited amount grown (<https://www.canada.ca/en/health-canada/topics/production-cannabis-for-your-own-medical-purposes.html>)
 - E.g, If using 1g/day, can have 4 plants indoors or 2 plants outdoors
- Must be able to prove to law enforcement that they are approved to have cannabis at home



ADVERSE EFFECTS & SAFETY



DRUG INTERACTIONS



Cannabis Drug Interactions

- Smoked cannabis induces CYP1A2 (e.g., may decrease effect of olanzapine, chlorpromazine)
- Inhibitors of CYP3A4 (e.g., ketoconazole) may result in **more effects** from THC or CBD
- Inducers of CYP3A4 (e.g., rifampin, St. John's wort, phenytoin) may result in **less effects** from THC or CBD
- Clinical importance of other interactions unclear

ADVERSE EFFECTS



What to Watch For *Side effects are higher for cannabis than most prescription medicines*

Very common (10-30%)

- Intensely happy/uneasy
- Sedation/relaxation
- Difficulty speaking
- Numbness
- Disconnected thoughts
- Muscle twitching
- Changes in heart rate/blood pressure

Common (1-10%)

- Impaired memory, confusion
- Blurred vision/visual hallucination
- Loss of touch with reality/self
- Problematic cannabis use (e.g., difficulty cutting down, continued use, despite harm)

Uncommon but serious (<1%)

- Intense/prolonged vomiting
- Loss of motivation

Long term side effects largely unknown



MANAGING ADVERSE EFFECTS



Managing Side Effects

- Reduce dose (frequency, potency, amount) or stop
- Reduce THC if cognitive side effects
- Tolerance may develop over weeks to months
- Stop if signs of problematic cannabis use
- Withdrawal symptoms include intense anxiety/ fatigue 1-2 days after stopping

CANNABIS USE DISORDER DOMAINS (DSM 5)

Behavioral (9 criteria)

- Impaired/loss of control
- Social impairment
- High risk use

Pharmacologic tolerance/dependence (2 criteria)

CANNABIS USE DISORDER DIAGNOSIS (DSM 5)

Diagnosed when there is "clinically significant impairment or distress"

Includes 11 criteria/symptoms

Based on the past 12 months

Must meet at least 2/11 criteria/symptoms

Severity

- Mild 2-3 symptoms
- Moderate 4-5 symptoms
- Severe 6+

CANNABIS USE DISORDER DOMAINS (DSM 5)

Pharmacologic tolerance/dependence (2 criteria)

- **Criterion 10.** Tolerance, as defined by either: a need for markedly increased amounts of cannabis to achieve intoxication and desired effect or a markedly diminished effect with continued use of the same amount of cannabis. Pharmacological tolerance is an expected consequence of regular, repetitive use of marijuana.
- **Criterion 11.** Withdrawal, as manifested by either: The characteristic withdrawal symptoms for cannabis, or cannabis or a closely related substance is taken to relieve or avoid withdrawal symptoms. Pharmacological withdrawal is common with regular repetitive use.

CANNABIS WITHDRAWAL SYNDROME (DSM 5)

3+ symptoms developing within ~1 week of cessation of heavy and prolonged cannabis use

- Irritability, anger, or depression
- Nervousness or anxiety
- Sleep difficulties (e.g., insomnia or disturbing dreams)
- Decreased appetite or weight loss
- Restlessness
- Depressed mood
- At least one physical symptom that causes significant discomfort (abdominal pain, shakiness/tremors, sweating, fever, chills, or headache)

LOW RISK CANNABIS USE GUIDELINES

Cannabis and Health

Using cannabis is a personal choice, but it can have short- and long-term effects on your health. Cannabis can affect your thinking, physical co-ordination and control, and increase your risk of accidents, injuries, reproductive issues and mental health problems, including dependence. Smoking cannabis can increase your chances of having lung problems.

Cannabis Use and Others

Remember that cannabis use can also harm those around you. Be considerate of other people's health and preferences if you choose to use cannabis.

If You Develop Problems

Some people who use cannabis develop problems and may become dependent. Don't hesitate to seek support if you think you need help controlling your cannabis use, if you experience withdrawal symptoms or if your use is affecting your work, school or social and family life. You can find help online, or through a doctor or other health professional.

Endorsements

The LRCUG have been endorsed by the following organizations:



Council of Chief Medical Officers of Health

Acknowledgment

The Lower-Risk Cannabis Use Guidelines (LRCUG) are an evidence-based intervention project by the Canadian Research Initiative in Substance Misuse (CRISM), funded by the Canadian Institutes of Health Research (CIHR).

10 WAYS

to Reduce Risks to Your Health When Using Cannabis

Canada's Lower-Risk
Cannabis Use Guidelines
(LRCUG)

Revised 2018

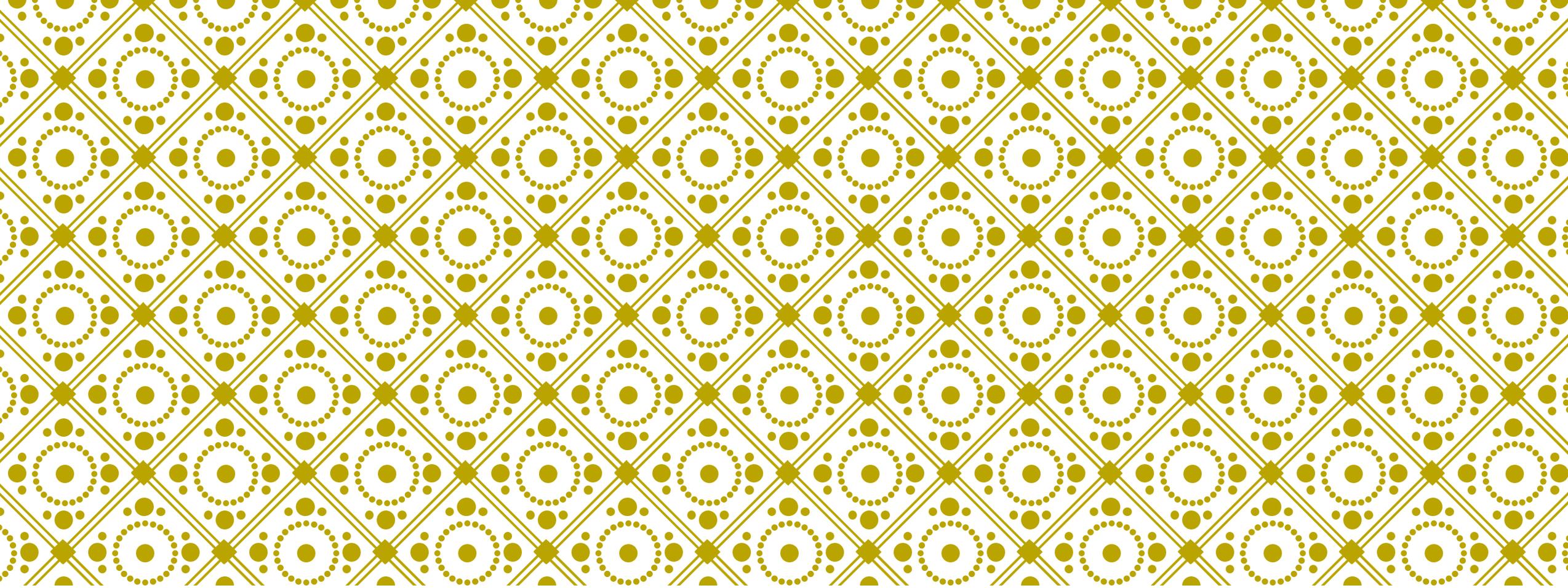
Reference

Fischer, B., Russell, C., Sabioni, P., van den Brink, W., Le Foll, B., Hall, W., Rehm, J. & Room, R. (2017). Lower-Risk Cannabis Use Guidelines (LRCUG): An evidence-based update. *American Journal of Public Health, 107*(8). DOI: 10.2105/AJPH.2017.303818.

The following **10 recommendations** suggest ways to use cannabis more safely, based on the best available scientific evidence.

- 1** Remember that every form of cannabis use poses risks to your health. **The only way to completely avoid these risks is by choosing not to use cannabis.** If you decide to use cannabis, follow these recommendations to lower risks to your health.
- 2** The earlier in life you begin using cannabis, the higher your risk of serious health problems. Teenagers, particularly those younger than 16, should delay using cannabis for as long as possible. **You'll lower your risk of cannabis-related health problems if you choose to start using cannabis later in life.**
- 3** Higher-strength or more powerful cannabis products are worse for your health. If you use products with high tetrahydrocannabinol (THC) content, the main mind-altering ingredient in cannabis, you're more likely to develop severe problems, such as dependence or mental health problems. Cannabidiol (CBD), another cannabis ingredient, can counteract some of THC's psychoactive effects. **If you use, choose low-strength products, such as those with a lower THC content or a higher ratio of CBD to THC.**
- 4** **Don't use synthetic cannabis products.** Compared with natural cannabis products, most synthetic cannabis products are stronger and more dangerous. K2 and Spice are examples of synthetic cannabis products. Using these can lead to severe health problems, such as seizures, irregular heartbeat, hallucinations and in rare cases, death.
- 5** **Smoking cannabis (for example, smoking a joint) is the most harmful way of using cannabis because it directly affects your lungs.** There are safer, non-smoking options like vaping or taking edibles that are better for your lungs. Keep in mind that these alternatives aren't risk-free either.
- 6** **If you choose to smoke cannabis, avoid inhaling deeply or holding your breath.** These practices increase the amount of toxins absorbed by your lungs and the rest of your body, and can lead to lung problems.
- 7** The more frequently you use cannabis, the more likely you are to develop health problems, especially if you use on a daily or near-daily basis. Limiting your cannabis use to occasional use at most, such as only using once a week or on weekends, is a good way to reduce your health risks. **Try to limit your use as much as possible.**
- 8** **Cannabis use impairs your ability to drive a car or operate other machinery. Don't engage in these activities after using cannabis, or while you still feel affected by cannabis in any way.** These effects typically last at least six hours, but could be longer, depending on the person and the product used. Using cannabis and alcohol together further increases your impairment. Avoid this combination before driving or operating machinery.
- 9** Some people are more likely to develop problems from cannabis use. **Specifically, people with a personal or family history of psychosis or substance use problems, and pregnant women should not use cannabis at all.**
- 10** **Avoid combining any of the risky behaviours described above.** The more risks you take, the greater the chances of harming your health as a result of cannabis use.

Please note: These recommendations are aimed mainly at non-medical cannabis use.



OTHER CONSIDERATIONS



LEARNING OBJECTIVES

By the end of the session, you should be able to:

- To describe the general indications medical cannabis
- Recognize the common adverse effects of medical cannabis
- Adjust the THC/CBD concentrations according to desired effects and adverse reactions
- Support prescribers in prescribing cannabis

OUTLINE OF TOPICS

We will review the following

- Cannabis prescribing:
 - How to initiate and up-titrate the cannabis
 - How to select an appropriate THC:CBD ratio,
 - What a cannabis prescription looks like
 - Safety for use in pediatrics
 - Medical cannabis guideline including indications for use
- General considerations with cannabis
 - Cannabis side effects,
 - Onsets of effect/duration of action for different formulations
 - Edibles and risk to kids
 - Lower risk cannabis use guidelines (delay use as much as possible)
 - Cannabis use disorder and withdrawal side effects
 - How to ask about cannabis use and the use of other drugs

PATIENT CASE 1

Eleanor is a 22 year old woman

- Chronic neuropathic pain from a motor vehicle accident
- Has tried pregabalin, amitriptyline, to no effect
- Wants to try cannabis

What do you recommend?

PATIENT CASE 1

Has she tried at least 3 drugs?

Do you choose nabilone, nabiximols, CBD oil, or a plant based product?

What will you do if it doesn't work?

PATIENT CASE 2

Peter is a 58 year old man with chronic pain

- Prescribed cannabis last year at a cannabis clinic
- Vapes dried plant product (9% THC, 9.5% CBD)
- Uses 2 grams/day
- Symptom relief usually lasts 2-3 hours
- Forgetting diabetes medications since starting

What do you recommend?

PATIENT CASE 2

What is likely working—the THC or CBD?

Can you change the THC/CBD ratio?

What about an oil or edible?

SUMMARY

Identify if cannabis is indicated

Determine the product that should be prescribed

If plant-based product is to be prescribed

- Assess for potential drug interactions
- Start low, go slow
- Regularly assess for efficacy/withdrawal/cannabis use disorder/adverse effects
- Have an exit strategy if ineffective

Make a habit of asking about cannabis use

LEARNING OBJECTIVES

By the end of the session, you should be able to:

- Describe the general indications for medical cannabis
- Recognize the common adverse effects of medical cannabis
- Adjust the THC/CBD concentrations according to desired effects and adverse reactions
- Support prescribers in prescribing cannabis

USEFUL REFERENCES

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