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# Cannabis & Mental Health: What You Should Know

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# Outline

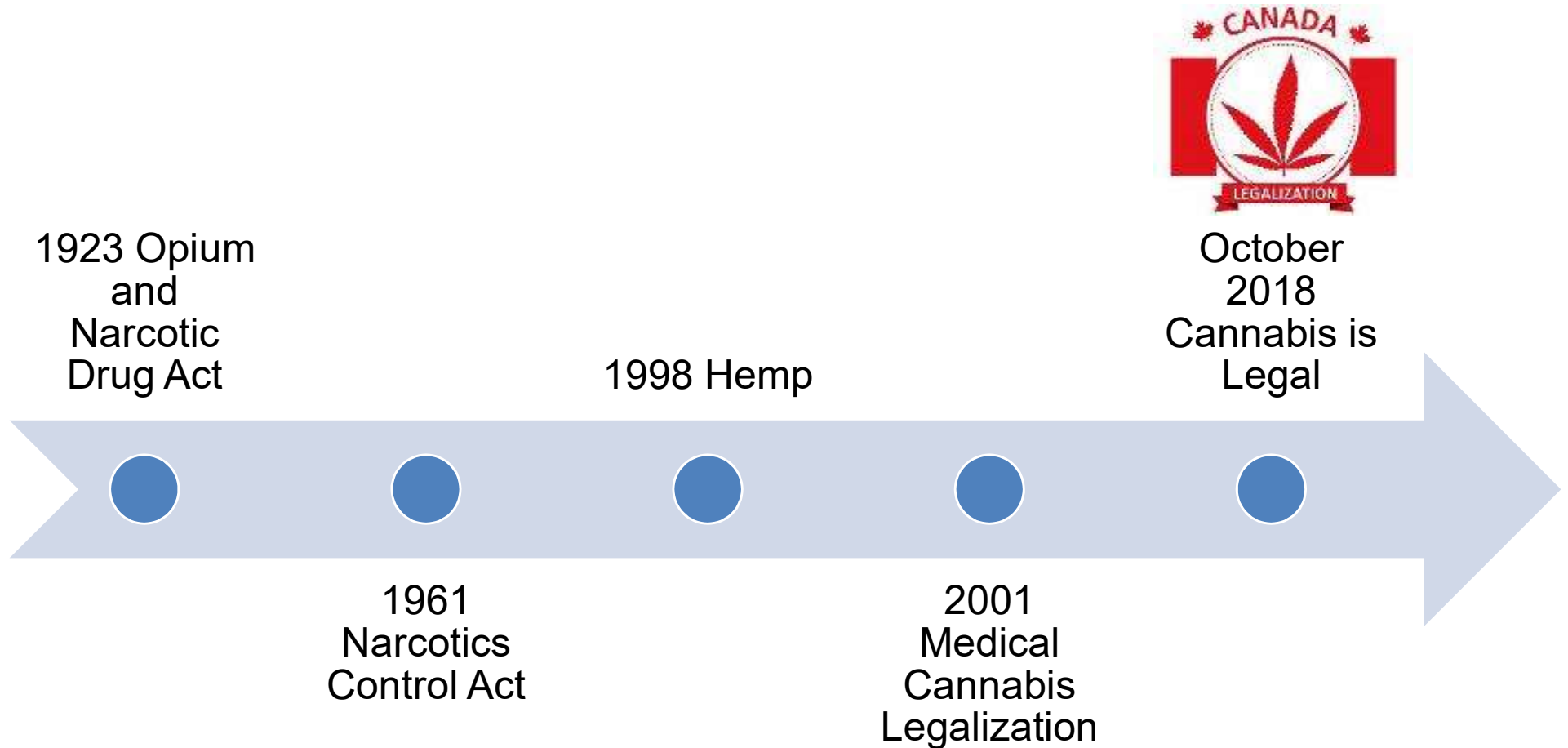
- Describe the legislation of Cannabis in Canada and Ontario
- Review the different kinds of cannabis plants and associated active chemicals
- Review the current evidence regarding Cannabis and Mental Health Conditions
- Review common drug interactions with Cannabis affecting those suffering from Mental Illness
- Discuss how to best support Residents

# Legal Requirements Related to Cannabis

- Main source of cannabis legislation in Canada
  - Cannabis Act (2018)
  - Cannabis Regulations (2018)
- Main source of cannabis legislation in Ontario
  - Cannabis Statute Law Amendment Act (2018)



# How did we get here?



# Two Regulated Sources of Cannabis by Use

- RECREATIONAL CANNABIS
  - Federal and Provincial Laws
  - Personal use for enjoyment, pleasure, or self-care
- MEDICAL CANNABIS
  - Federal laws
  - Prescribed by a medical or nurse practitioner



# Legal Forms of Cannabis

Form of Cannabis	Description	THC Potency
Cannabis oil	Cannabis extract dissolved in oil. Can be used to make other forms (for example, edibles).	up to 3%
Fresh cannabis	Fresh flowers and leaves from the cannabis plant	up to 30%
Dried cannabis	Dried flowers and leaves from the cannabis plant	up to 30%
Cannabis plant seeds		Up to 30%
Cannabis plants		Up to 30%

# Not Yet Legal Forms of Cannabis- But Will Be Legal by October 2019

Form of Cannabis	Description	THC Potency
chemically concentrated extracts (for example, hash oil/shatter/budder/wax)	Highly concentrated cannabis extract dissolved in petroleum-based solvent (for example, butane). Shatter, budder and wax most highly concentrated.	up to 90%
physically concentrated extracts (for example, hash/kief)	Loose trichomes or pressed resin from the cannabis plant.	up to 60%
edibles	Foods and drinks containing extracts of cannabis	Depends on the amount of extract added
tinctures/sprays	Cannabis extract dissolved in a solvent, often alcohol. Can be used to make other products (for example, edibles).	varies
creams/salves/liniments	Cannabis extract preparation prepared with alcohol, oil or wax and applied to the skin.	varies

# Cannabis vs Marijuana

- Marijuana is a slang term for the dried flowers, leaves, stems and seeds of the cannabis plant.





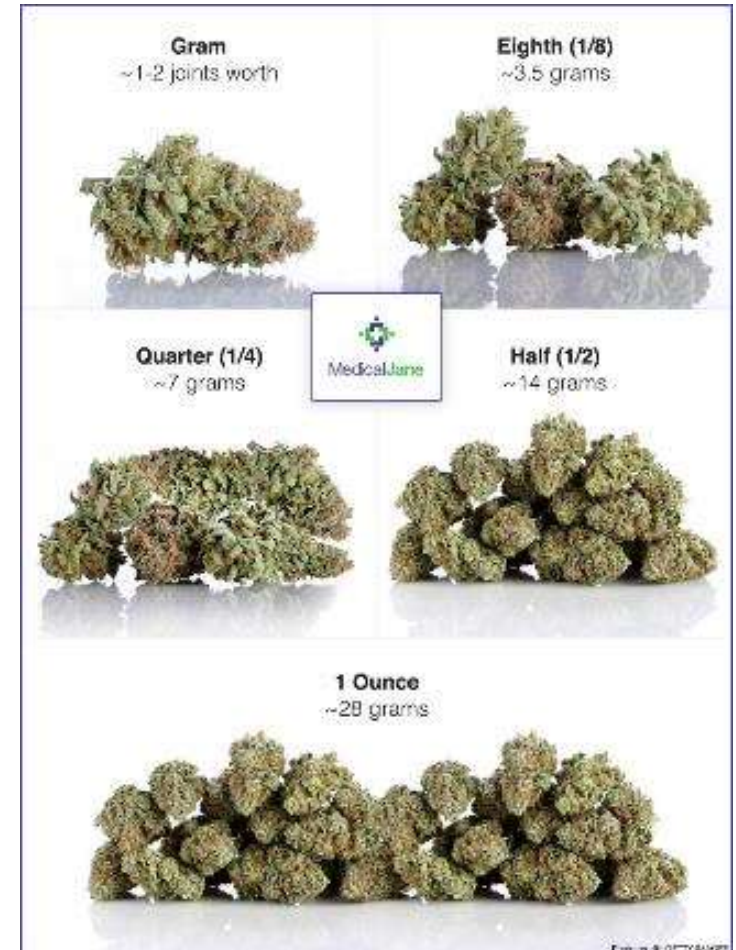
# Cannabis Act: Adults 18+

- Purchase/possess up to 30g of dried/equivalent at a time
- Share up to 30g with other adults at a time
- Make food/drinks (if organic solvents are not used to create concentrated products)
- Buy (dried/fresh/oil) from a provincially licensed retailer
- Buy seeds
- Grow up to 4 plants per household at a time



# Cannabis Act: Young Persons <18

- Cannot purchase cannabis if <18 years old
  - Provinces can INCREASE minimum age (Ontario is 19 yrs)
- Can possess up to 5g of dried/equivalent
- Cannot make food/drinks
- Cannot grow plants



# Cannabis Statute Law Amendment Act: Ontario

- INCREASES  
minimum age for  
growth, purchase,  
use and  
possession to **19**  
**yrs**





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# Cannabis & Its Components

# Cannabis Plants

- Cannabis Sativa
  - uplifting and energetic
  - cerebral, spacey or hallucinogenic
- Cannabis Indica
  - relaxing and calming
  - body buzz or 'couch lock'
- Cannabis Ruderalis
  - Contains low levels of THC/CBD



# Cannabis Components

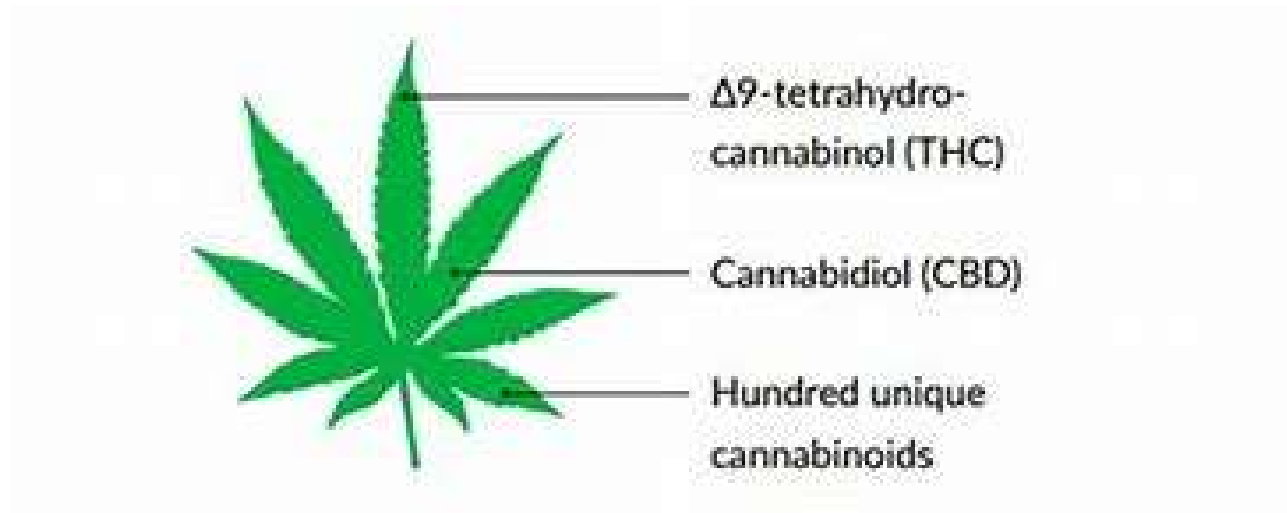
- Cannabis contains over 400 components,
- Over 100 are cannabinoids
  - Cannabinoids have effects on cell receptors in the brain and body.
- Terpenes give cannabis its distinctive smell





# Major Cannabinoids: THC & CBD

- THC = delta-9-tetrahydrocannabinol
  - Responsible for the high and intoxication
- CBD = cannabidiol
  - Does not produce a “high”



# Cannabis Use In Canada

- Cannabis is one of the most widely used psychoactive substances in Canada
  - 14.8% of Canadians aged >15 yrs reported using cannabis at least once in the past year
    - 20.6% of youth aged 15-19
    - 29.7% of young adults aged 20-24
  - 72% of Canadians aged >15 yrs who used in the past year, used it in the past 3 months
    - 33% reported using it on a daily or almost daily basis



# What is Regular vs Heavy Use?

- REGULAR USE:
  - Weekly or more frequent cannabis use over a period of month to years
- HEAVY USE:
  - Daily or more frequent use
  - A sign of dependence and cannabis use disorder

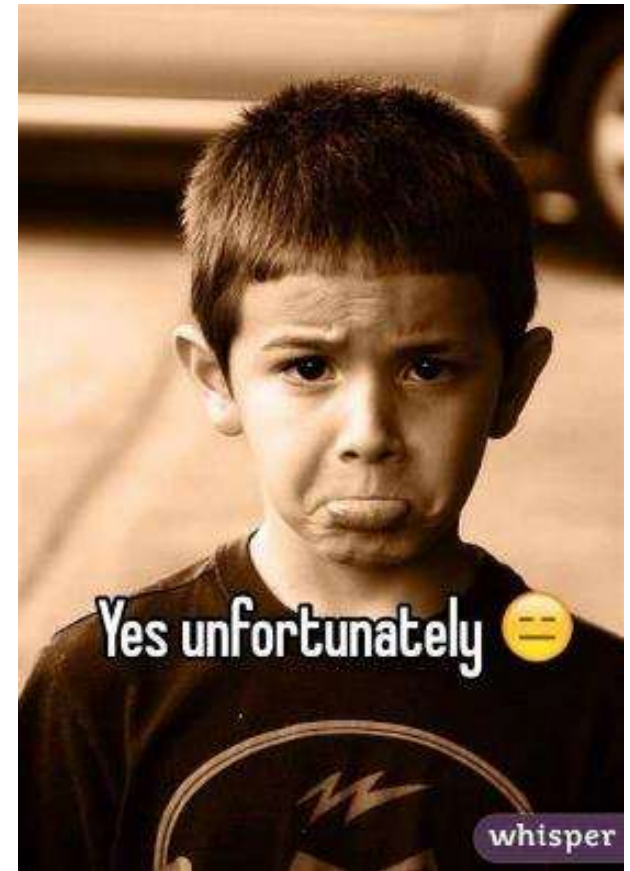
# Regular Cannabis Use & Mental Health

- Regular use is 2x more common among people with mental disorders, including schizophrenia, bipolar disorder, depression, anxiety and PTSD



# Does it Cause Schizophrenia and Psychosis

- **Regular use** leads to development of psychosis and schizophrenia among individuals
  - with a family history (2x the risk)
  - without a family history (40% increased risk)



# Psychosis & Cannabis Use

Symptom	Cannabis Use	Schizophrenia / Psychosis
Impaired memory, cognition and processing of external stimuli	✓	✓
Delusions & hallucinations	✓	✓
Anxiety	✓	✓
Symptoms are short-lasting and do not last after drug wears off	✓	X

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# Other Risk Factors For Developing Psychosis & Schizophrenia

- Using early (before age 18)
- Using products with high THC content
- Presence of COMT and AKT1 genes
  - 5X risk of developing psychosis



# Ongoing Use of Cannabis in Psychosis

- Will bring forward a diagnosis of psychosis by an average of 2.7 years
- Exacerbates symptoms in people with established psychotic disorder
- Relapses and hospitalizations are more common
- Poorer future outcome





# Depression & Anxiety





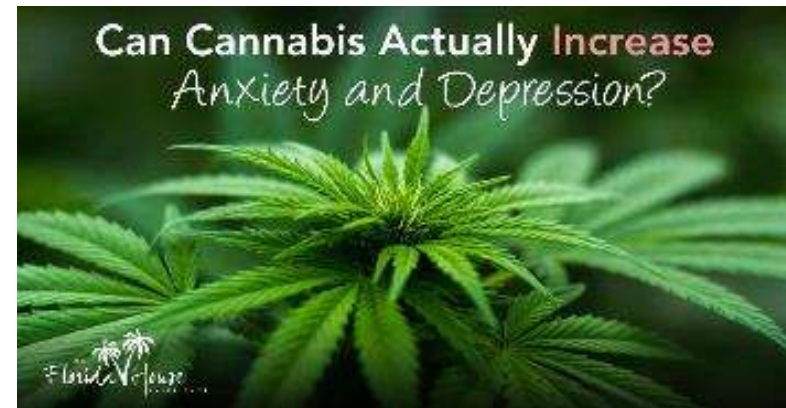
# Anxiety & Depression

- Response to cannabis use differs between individuals and products
  - Some use cannabis for its euphoric and relaxing effects.
  - But some people also experience feelings of anxiety or paranoia when intoxicated



# Anxiety & Depression

- High CBD ratio may have antipsychotic and anti-anxiety effects
- High THC ratio may produce anxiety and psychotic features



# Depression & Anxiety

- Risk of **developing** first depressive episode or anxiety disorder is small. However it can:
  - Increase risk of suicidality, even in the absence of a pre-existing condition
  - Increase other factors that increase the risk of depression, like school dropout or unemployment
  - Increase risk of developing cannabis use disorder, when used to treat anxiety

# Cannabis & PTSD

- Associated with poorer mental health outcomes in PTSD
- Commonly associated with cannabis use disorders
- More studies required



# Cannabis & Addiction

- Addiction is possible for 10% of people who ever try cannabis
  - THC's euphoric effects are likely to blame
- But also used to treat addiction (e.g. to opioids)
  - Harm reduction
  - Treat symptoms of withdrawal and cravings



# Why So Many Mixed Messages?

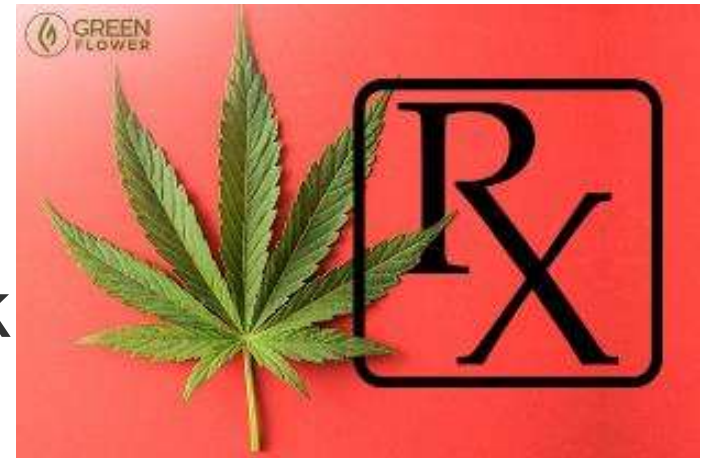
- Cannabis plant is complex  
(THC:CBD +++ others)
- Cannabis related research is complex
  - Small and inconsistent
  - Do not always account for:
    - Polysubstance use
    - Genetic background
    - Sex and gender differences
- Topic is emotionally and politically charged





# Drug-Cannabis Interactions

- Smoking cannabis may decrease the effect of common antipsychotics:
  - Olanzapine (Zyprexa)
  - Chlorpromazine
- Cannabis can increase the risk hypomania from some antidepressants
  - Fluoxetine (Prozac)
  - Sertraline (Zoloft)



# Drug-Cannabis Interactions

- Cannabis can increase the effect of sedatives
  - Alcohol
  - Benzodiazepines
    - Lorazepam (Ativan)
    - Clonazepam





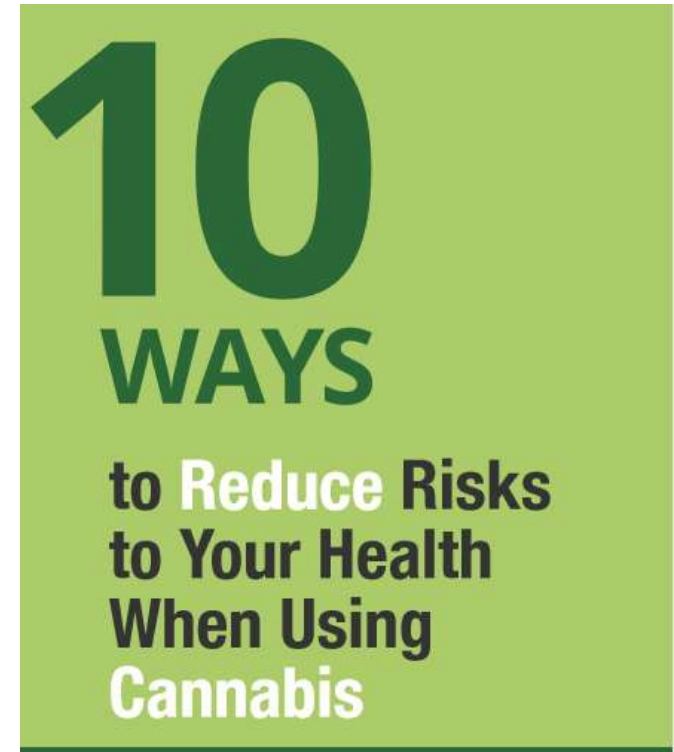
# Drug-Cannabis Interactions

- Cannabis can increase the effect of blood pressure medications
  - Carvedilol
  - Lisinopril
  - Valsartan
- Cannabis can increase the risk of bleeding with blood thinners
  - Eliquis
  - Xarelto
  - Coumadin



# How to Support Residents

- For the occasional user, cannabis is relatively safe
  - Follow low-risk guidelines
- For those with mental health and addiction concerns, close medical and psychological attention is required



# Have The Conversation



# Low-Risk Guidelines

## **Cannabis & Your Health**

### **10 WAYS** to Reduce Risks When Using

Cannabis use is now legal for adults, but it does have health risks. If you use non-medically, you can make informed choices for safer use.



Delay using cannabis as late as possible in life, ideally not before adulthood.

Avoid using if you're pregnant, or if you or family members have a history of psychosis or substance use problems.



# Low-Risk Guidelines



Choose low-potency products — those with low THC and/or high CBD content.

Stay away from synthetic cannabis products, such as K2 or Spice.

Use cannabis in ways that don't involve smoking — choose less risky ways of using like vaping or ingesting.

If you do smoke, avoid deep inhalation or breath-holding.

# Low-Risk Guidelines



Occasional use, such as one day per week or less, is better than regular use.

Don't operate a vehicle or machinery while impaired by cannabis. Wait at least 6 hours after using. Remember that combining alcohol and cannabis makes you more impaired.

Your actions add up. The more risky choices you make, the more likely you are to harm your health.

Not using cannabis at all is still the best way to protect your health (unless you use with a medical recommendation).

# 5 Things to Know About Cannabis



# Questions?





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