# If it's Legal it Can't be all Bad... can it?

# Impact of Recreational and Medical Marijuana use during Pregnancy and Lactation on the Newborn

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### Objectives

 Understand the current use, risks and differences between medical (CBD) and recreational (THC) marijuana

 Discuss evidence based education for women and current management strategies for caring for newborns exposed to THC through pregnancy and breastfeeding

 Discuss the impact of increased newborn exposure to recreational and medical marijuana with it's legalization

#### Marijuana... common term for Recreational Cannabis in the form of dried leaves, stems or seeds



- Cannabis: pot, grass, reefer, weed, herb, Mary Jane, or MJ
- Contains over 700 chemicals, about 70 of which are cannabinoids
- Hash and hash oil also come from the cannabis plant

- Anticipated legalization in Canada July 2018
- Currently legal in 29 states in the US
- Recreational use and self medication with cannabis is very common
- Peak use is in the 20's and 30's : women's reproductive years

### Cannabis Ingredients

- Tetrahydrocannabinol (THC) is the chemical that makes people high
- Cannabidiol (CBD) is known for its medicinal qualities for pain, inflammation, and anxiety
  - o CBD does not make you feel as high
- Different types of cannabis and effects depend on the amount of THC or CBD, other chemicals and their interactions
- THC content is known to have increased over the past several decades
- Oils have higher percentage of THC and THC in edible cannabis products can vary widely and can be potent

THC content/potency of THC confiscated by DEA in US has been steadily increasing Consequences could be worse than in the past, especially among new users or in young people with developing brains

ElSohly et al, (2016) Changes in cannabis potency over the last 2 decades (1995-2014): Analysis of current data in the United States. Biological Psychiatry 79: 613-619

#### Potency: Mean THC % 1995 - 2014

#### Legalization State by State



### National Survey on Drug Use and Health in the US 2012

- 5.2% of pregnant women 15 24 yrs reported past month use
- Use of cannabis was reported higher during the first trimester (10.7%) as compared to the second (2.8%) and third (2.3%)

### Use in Canada

- After alcohol, cannabis is the most widely used psychoactive substance in Canada
- 2013 Canadian Tobacco, Alcohol and Drugs Survey (CTADS):
  - 10.6% of Canadians aged 15 and older reported using cannabis at least once in the past year
  - In 2015, Statistics Canada reported 10.2% usage in same group.... Virtually unchanged
  - 22. 4% among 15 19 yrs and 26.2% among young adults 20 to 24 yrs
  - Approx. 28% of Canadians age 15 and older who used cannabis in the past three months reported they used this drug every day or almost every day

#### Use in Canada among women

- Approx. 11% of women of childbearing age, 15 44 yrs reported past year use of cannabis (Health Canada, 2013)
- 2008 Canadian Prenatal Health Report , 5% of pregnant women illicit drug use during pregnancy, but did not specify the actual % that used cannabis (Ordean & Kahan, 2011)
- Alberta Reproductive Health Working Group indicated that 2.3% of women who gave birth in 2006 reported using street drugs and cannabis was the most commonly used substance
- These stats are below the reported usage from the studies which state rates of 10 – 16% in middle class samples to 23 – 30% in inner city populations (Day, Leech & Goldschmidt, 2011; Fried, 2002)

#### Methods of Use



# **Edibles**



Serving Size = 10mg Retail Limit = up to 100 mg Medical Limit = N/A Onset = 30 min to 4 hour



5mg = 2 hits on a joint
35mg = an entire joint
130mg = an eighth ounce
Onset : instant

























From: Unintentional Pediatric Exposures to Marijuana in Colorado, 2009-2015

JAMA Pediatr. 2016;170(9):e160971. doi:10.1001/jamapediatrics.2016.0971

State Pediatric Marijuana Exposures Annual children's hospital visits and regional poison center cases for unintentional marijuana exposures in children 9 years or younger in Colorado between 2009 and 2015. Children's hospital visits include emergency department visits, urgent care visits, and inpatient hospital admissions.

#### SOGC Position Statement (May 9th, 2017)

- Cannabis is the most commonly used illicit drug among pregnant women
- Legalization of cannabis in Canada may reinforce the reputation of cannabis being a harmless drug and result in an increase of use among pregnant women
- Evidence-based data has shown that cannabis use during pregnancy can adversely affect the growth and development of the baby and lead to long-term learning and behavioral consequences
- Pregnancy is a critical time for the brain development of the baby and the adverse effects caused by cannabis exposure can be lifelong

#### SOGC Canada – watching the pending legislation with concern

#### Dr. George Carson, president of SOGC stated: (June, 2017)

- o "Our worry is that because it is made legal, people may not think it's a problem."
- SOGC's position will be that while it is legal, there are adverse effects on brain development from cannabis consumption until the brain development is finished, which in not until the early 20's. It is legal but should be strongly discouraged
- Further concern is that is it widely promoted among some as an anti-nauseant during early pregnancy. "there are safer and more effective medications for nausea in pregnancy" said Carson. "My hope is that it is not used because of the adverse effects on brain development".
- SOGC is issuing new guidelines on substance use during pregnancy later this year due to the upcoming legalization and new evidence about it's use in pregnancy and also because of the increased use of opioids

#### ACOG Committee Opinion- Oct. 2017

Because of the concerns regarding impaired neurodevelopment, as well as maternal and fetal exposure to the adverse effects of smoking, women who are pregnant or contemplating pregnancy should be encouraged to discontinue marijuana use

OBGYN's should be discouraged from prescribing or suggesting the use of marijuana for medicinal purposes during conception, pregnancy and lactation

#### Ask a Practice Advisor: Medical Cannabis

Donna Cooke, RN, Nursing Advisor, Policy

## Can Registered Nurses in Saskatchewan assist with and/or administer medical cannabis?

Yes, the SRNA has determined that Registered Nurses (RNs) in Saskatchewan may assist with providing, and/or administering, medical cannabis (including cannabis products and derivatives such as dried or fresh leaves, oils and concentrates) to a patient, client or resident receiving publicly funded healthcare services and who is currently under medical treatment. The patient, client or resident must possess a medical document issued by a physician. The medical document contains similar information to a prescription, including:

- the authorized health care practitioner's licence information
- the patient's name and date of birth
- a period of use of up to one (1) year
- a daily quantity of medical cannabis.

An employer/agency policy will define what employees may act as agents of a physician with respect to the handling of medical cannabis as well as the process(es) for complying with the applicable regulations in the care setting. The policy will include the limits on the amount of medical cannabis that RNs can possess during the medication administration process.

RNs are required to understand and comply with the applicable legislation and employer/agency policy when assisting and/or administering medical cannabis to a patient, client or resident.

As with the administration of all medications, RNs need to utilize the principles outlined in the SRNA document entitled, <u>Medication</u> <u>Management: A Patient Centred Decision-making</u> <u>Framework (2015)</u> to provide safe client care.

#### What legislation is related to medical cannabis?

- Health Canada has released the <u>Access to Cannabis for Medical</u> <u>Purposes Regulations (ACMPR)</u>. This federal legislation replaced the Marihuana for Medical Purposes Regulations (MMPR).
- Medical Cannabis is a controlled substance under the federal Controlled Drugs and Substance Act and the Narcotic Control Regulations.
- Health Canada has provided information on cannabis for medical purposes and the <u>interpretation of the Medical Cannabis Regulations</u>.

#### What factors should RNs consider prior to administering, or assisting a client to self-administer, medical cannabis?

- Do you have knowledge about the medication and the competence to safely administer medical cannabis or to assist a client with selfadministration?
- Do you need to consult with any other members of the health care team prior to administration?
- Is there a valid order from an authorized health care provider?
- Is the medical cannabis appropriately labelled?
- Have you included the medical cannabis in the client's medication reconciliation profile?
- What should be documented related to assistance and/or administration of medical cannabis?

#### Where can RNs access additional information about Medical Cannabis?

Health Canada has prepared information for health care professionals.

For more information ACMPR please contact Health Canada at 1-866-337-7705

SRNA practice advisors are also available to discuss practice issues and concerns regarding medical cannabis. To contact the SRNA for practice advice please call 1-800-667-9945 or 306-359-4200 (ask to speak to a practice advisor), or send an email to: practiceadvice@srna.org

# SRNA "Ask a Practice Advisor: Medical Cannabis"

- SRNA has determined that the RN's in Saskatchewan can assist with providing and/or administering medical cannabis (including cannabis products and derivatives such as dried or fresh leaves, oils and concentrates) to a patient, client or resident receiving publicly funded healthcare services and who is currently under medical treatment
- Patient, client or resident must have a medical document issued from a physician which contains information similar to a prescription

### Key Effects of Cannabis & Risks

- Varies from one person to another
- Your age and sex
- The potency of the cannabis
- Amount, frequency, and duration of use
- Your physical and mental health
- Your use of other substances such as alcohol and other drugs.... illegal. OTC or prescribed
- Increasing evidence that it's harmful to early brain development if used before the age of 25
- Further studies required to determine the full impact on long-term outcomes and association with academic and employment success

- Effects on short term memory, attention and coordination
- Anxiety and mild to acute paranoia
- Increased appetite (benefit for some)
- Impact on physical health, including risk of cancer (may be increased risk of lung cancer is smoke both cigarettes and cannabis)
- Heavy use can lead to developing or worsening mental health symptoms
- Impact on fertility, pregnancy and parenting

Volkow N, et al. Adverse Health Effects of Marijuana Use. N Engl J Med 2014;370:2219-27.

### Addiction and Withdrawal

- Addiction
  - Approximately 9% of those who use marijuana will become addicted (according to criteria for dependence in the DSM-IV)
  - 1 in 6 among those who start marijuana use as teenagers
  - Withdrawal -- Can occur ( has also been reported in newborns)
     Irritability
    - Sleeping difficulties
    - O Dysphoria (opposite Euphoria)
    - O Craving
    - O Anxiety

Lopez-Quintero C, et al. Results of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). Drug Alcohol Depend 2011;115:120-30.

#### Effects on Conceiving

- May affect the ability to become pregnant
- Heavy use has been linked to changes in menstrual cycle for women
- Iower sperm counts and sperm quality in men



#### Prenatal Marijuana Exposure

#### Marijuana DOES pass through the placenta to a developing fetus



#### UC Health North Newborns positive for THC at birth



### Effects on Pregnancy & the Fetus

- Increased risk of preterm birth for heavy cannabis users and those who also use tobacco
- Cannabis is often used with other drugs such as alcohol which is known to have negative effects on the pregnancy and the health of the fetus
- Some women report benefits from using cannabis in pregnancy to treat morning sickness.... Due to potential harms to the pregnancy, fetus and the mother, safer treatments should be discussed
- Encouraging early and regular prenatal care and visits allows for such discussions
- If not stopping completely, encourage to less and less often

- Cannabis smoke contains many of the same harmful chemicals as cigarettes
- These can decrease the supply of oxygen and nutrients to the fetus
- Some studies show effects such lower birth weights, lower alertness and slower growth
- Cannabis has not been linked to birth defects, but the known effects on the developing brain may be lasting well into adolescence
- As a result of cannabis exposure in pregnancy a child may have difficulties with learning, behavior and mental health later in life

### Evidence of Effects on Exposed Offspring

	Substantial	Moderate	Limited	Insufficient	Mixed
		Decreased Growth	Stillbirth	Psychosis symptoms	Preterm
		Decreased IQ scores in young children	SIDS (no evidence of association)	Breastfeeding and SIDS	Low Birth weight
		Decreased Cognitive Function	Increased depression	Initiation of future marijuana use	Small for gestational age
		Decreased Academic Ability	Delinquent behavior		Newborn behavioral issues
		Attention Problems	Isolated simple ventricular septal defects		Breastfeeding and infant motor development
/					Neural tube defects, gastroschisis
					Frequency of use as adolescent

Weed & Feed: Marijuana in Pregnancy and Breastfeeding:Borgelt, Laura, Pharm.D., NCMP, USLCA Webinar, May, 2015. "

#### Effects on the Developing Brain

- THC binds to cannabinoid receptors (CBRs)
- CBRs are located on the surface of nerve cells
  - in high-density areas of the brain that influence pleasure, memory, thinking, concentration, movement, coordination, and sensory and time perception
  - Part of a vast communication network called the endocannabinoid system
     plays a critical role in normal brain development and function
- TCH effects are similar to those produced by naturally occurring chemicals found in the brain and body called endogenous cannabinoids – help control many of the same mental and physical functions disrupted by MJ use

Drugs are "imposters" of brain messages

They affect chemical communication

A brain cannabinoid and  $\triangle 9$ -THC are similar

#### **Brain's Chemical**



Drug

#### Anandamide



### What Studies?

- Most available evidence derived from three studies that described the impact of cannabis use during pregnancy on child development and behavior
  - **Ottawa Prenatal Prospective Study (OPPS)** 
    - Initiated in 1978, predominantly Caucasian, middle class families (Fried, 2002)
- 2. The Maternal Health Practices and Child Development study (MHPCD)
  - Commenced in Pittsburgh in 1982 and based on a cohort of children of mostly African American women from low socio-economic backgrounds (Day, Sambaoorthi, Taylor, et al., 1991).
- 3. The Generation R Study
  - Commenced in 2001 and consisted of a multi-ethnic cohort of mothers and children with a predominantly higher socio-economic status from the Netherlands (El Marroun, Tiemeler, Steefers, et al., 2009)

All three of these studies began when the women were pregnant and have followed their children into early childhood (Generation R), adolescence (MHPCD) and early adulthood (OPPS).

Caution is urged when comparing the results from the OPPS and the MHPCD to the Gen R study because the THC content in cannabis preparations has steadily increased over the past decades.... So it is possible that children exposed in the Gen R study were exposed to higher THC levels compared to those participating in the other two studies

- In the Gen R study:
  - maternal cannabis use in pregnancy was associated with reduced fetal growth in mid and late pregnancy as well as lower birth weight and these associations were independent of various lifestyle and socio-economic factors (El Marroun et al., 2009)
  - o also suggested a dose-response relationship.. So that heavier cannabis use during pregnancy was associated with lower birth weight
- MHPDC study noted a small but significant relationship between cannabis use during the 1<sup>st</sup> trimester and length of the child at birth (Day et al., 1991)
- In contrast OPPS did not observe any differences in growth measures at birth between users and non cannabis users
  - Hayatbakhsh and colleagues (2011) reported that use of cannabis in pregnancy
    - Significantly predicted negative outcomes, including low birth wt., preterm birth, small size for gest. Age and admission to the NICU
    - These effects were independent of the mother's socio-economic status, cigarette smoking, alcohol consumption and the use of illicit drugs
- A metanalyses of 10 studies found only a weak evidence that any maternal use of cannabis during pregnancy was associated with either a reduction in birth wt or low birth weight (English, Hulse, Milne, Holman & Bower, 1997)

- MHPCD study, prenatal exposure to heavy maternal cannabis use predicted poorer scores on academic achievement, particularly reading, at age 14
- At age six, noted were attention problems and depression symptoms at age 10, and early initiation of cannabis use
- At age 16, deficits in information processing speed, interhemispheric transfer of information and visual motor coordination were reported
- Findings from imaging studies of young adults aged 18 22 in the OPPS study indicate that in utero cannabis use negatively impacts the neural circuitry involved in aspects of executive functioning, including response to inhibition and visual spatial working memory (Smith, Fried, Hogan and Cameron, 2004 & 2006).

#### Implications

Early brain development involves a complex cascade of events that can be influenced by prenatal and environmental factors

These events can have downstream effects, influencing postnatal development and behavior

Prenatal exposure to cannabis, particularly heavy use can have subtle effects beginning as early as age three, on cognitive functioning, behavior, mental health and substance use during adolescence

### Long-term effects on Children & Teens

#### In Infancy

- o Decreased ability to self-soothe
- Increased tremulousness, exaggerated startles and disrupted sleep patterns
- By age 3-6 years
  - Poorer memory and verbal reasoning skills
  - Less attentive, easily distracted and more impulsive
- By age 6-10 years
  - Hyperactivity, impulsivity and inattention
  - o More difficulty in making decisions

- o More difficulty learning
- Symptoms of depression and anxiety
- By age 14 16 years
  - Reduced school performance
  - o Delinquency problems
  - Continued hyperactivity, impulsivity and inattention
  - More likely to start trying and using cannabis earlier

http://www.ccsa.ca/Resource%20Library/CCSA-Cannabis-Maternal-Use-Pregnancy-Report-2015-en.pdf

### Cannabinoid Hyperemesis Syndrome (CHS)

- Occurs with chronic cannabis use
- Cyclic vomiting
- Compulsive bathing

#### Women cite nausea as reason for using THC during pregnancy

- The Cannabis Hyperemesis Syndrome Characterized by Persistent Nausea and Vomiting, Abdominal Pain, and Compulsive Bathing Associated with Chronic Marijuana Use: A Report of Eight Cases in the United States (Gastroenterology November 2010, Volume 55, <u>Issue 11</u>, pp 3113–3119 )
- Obstetricians need to determine whether compulsive bathing or showering provides symptomatic relief
- Ask specific questions regarding possible/suspected cannabis consumption
- Suggest/prescribe known safer pharmacological options for management of nausea in pregnancy

#### Cannabis Use & Breastfeeding

- Very little is known about cannabis use and lactation
- Motherisk Program helpline receives about three calls a week regarding safety in nursing mothers for recreational use, for health issues such as depression, anxiety or pain
  - Questions come from mothers themselves, friends, relatives and health care providers concerned about newborn exposure
- Answer from Motherisk is:
  - Lactating mothers should refrain from consuming cannabinoids. Advise mothers to discontinue breastfeeding if they cannot stop using but must take in account the known risks of formula feeding. Due to the lack of evidence about the neonatal risk at this time best practice is to closely monitor every case

## Marijuana Effects on Breastfeeding

- Limited data
- THC is absorbed from the GI Tract and lungs rapidly transmitted into breast milk in moderate amounts
- Lipophilic (loves fat): distributed to brain and fat tissue and extensively bound to plasma proteins (97%)
- Relative Infant Dose 0.8% of what mom is using
- Milk: plasma ratio is 8:1 in chronic, heavy users metabolites can be found in infant feces



### From Motherisk Program Information Site

- THC metabolized in the liver , has an elimination half life of 20 to 36 hrs
- In chronic users half life could be up to 4 days because it is stored in body fat and can be detected for up to one month after last use
- Excreted in urine and feces over a prolonged period
- Infants may test positive in urine screens for 2-3 weeks
- Animal studies suggest cannabis can decrease milk supply by suppressing prolactin production and possibly through a direct effect on the mammary glands
- There are no human studies to corroborate this

- 1990 study by Astley & Little suggested that exposure to THC through breastmilk in the first month of life could result in decreased motor development at 1 year. No studies have adequately studied long term neurodevelopment
- Lethargy, less frequent feeding, and shorter feeding times have been observed after exposure through breastmilk
- A mother's ability to nurse and care for the child might be compromised because cannabis can affect mood and judgement

#### Professional Organizations Statements on Marijuana use during pregnancy and lactation

- ACOG: Committee Opinion 637: marijuana use during pregnancy and lactation is contraindicated
- AAP March 2013 Technical Report: marijuana use during pregnancy and lactation is contraindicated

American Academy of Breastfeeding Medicine: Breastfeeding mothers should be counseled to reduce or eliminate their use of marijuana to avoid exposing their infants to this substance and advised of the possible long-term neurobehavioral effects from continued use. (III)



### Parenting & Cannabis

- Second hand smoke (whether smoke or vapourized) is harmful to all of us , can cause illness in infants and young children
- Cannabis can affect alertness, understanding and judgement
- Safe storage. Important that children not eat cannabis... may look fine at first as the reaction to the drug may not be immediate, but show effects much later
  - Edible product production not well regulated
  - o May contain molds, bacteria, heavy metals and pesticides
- Being high while parenting can affect how parents interacts with their child
  - May miss cues for your child's hunger, to be comforted, or to play and learn
  - Being attentive to your child is important to their development
  - o Can also affect ability to judge, make good decision and protect from danger
  - Feeling more relaxed can lead to slower reaction time and reduce ability to attend to your child for many hours
- Make sure there is always someone available who is not high to take care of your child
- Being high while driving slows reaction time and driving skills
  - o Cannot judge distances and driving slower is not safer
  - Places yourself and your child at risk of collision and injury
- Consider the potential benefits and risks to our health, your relationships, your work and your finances

### Goal: Well Informed Staff & Practice Consistency

What staff need to know

This is a strong recommendation not a contraindication for breastfeeding.

Balance the rights of the mother vs the newborn ...support a patient's right to make informed decisions about their and their newborn's care. Our role is to provide the patient with information in a nonjudgmental way

#### Goal: Well Informed Staff & Practice Consistency

- Professionals who provide health care to pregnant women need to be well informed of the latest clinical evidence and research
- Patient education is an interdisciplinary team effort and the expectation is that providers (OB and Pediatric) and staff discuss the risks of cannabis use during pregnancy and breastfeeding while using marijuana / cannabis
- Results from a recent survey of gynecologists, obstetricians, midwives and general practitioners practicing in France (Gerardin, Victorri-Vigneau, Louvigne, Rivoal & Jolliet, 2011) suggest that:
  - o Only 51% asked their pregnant patients about drug use
  - 68% did not feel sufficiently informed about the risks of cannabis use during pregnancy to provide advice
  - lacked the means to inform and take care of their patients who used cannabis

#### Goal: Well Informed Staff & Practice Consistency

- Patients will most likely choose one of the following scenarios to feed their baby.
  - Pump and dump to establish milk supply while in the process of stopping marijuana use, provide newborn with donor human milk or formula per patient preference. We want to support a patient's desire to stop or reduce her use of marijuana as well as her desire to breastfeed.
  - Not breastfeed or pump and provide infant with donor human milk or formula
  - Breastfeed We recognize that this is not the preferred choice, however once we have offered the patient appropriate education the choice is hers to make. If the patient chooses to breastfeed staff MAY assist her with breastfeeding throughout her hospital stay, we want to make sure all our newborns are being discharged home eating well to reduce the risk of excessive weight loss and possible readmission.

### Goal: Well Informed Staff & Practice Consistency

- Develop patient handouts available at provider offices discussing substance use at various times during pregnancy
- Develop patient handouts explaining the hospital screening process and possible testing
- Educate providers that there is no known safe level of substance use during pregnancy and provide in depth information on Maternal Newborn Risk Screening process

#### Options for "What to say"

#### Setting the stage

- o It's rare that a mother seeks harm for her baby... assume that the family wants what is best for the child
- o "I can see how much you love \_\_\_\_\_and I know you want what is best for her...she is so cute..."
- Talk about general aspects regarding the baby, compliment the baby, set a positive tone...bridge into...THC discussion
- With a positive screen... " I noticed your drug screen was positive for THC. I wanted to take a moment to discuss this with you
- An educational approach......The legalization of marijuana has raised many questions related to whether it is safe to use marijuana (including smoking, eating and drinking) during pregnancy and while breastfeeding.

- <sup>o</sup> "There is no known safe level of THC consumption during pregnancy or breastfeeding"
- "THC is "lipophilic" it loves fats. With all the wonderful fats in breastmilk the THC loves to hang on in the breast milk. In fact in some studies the THC level in breastmilk was up to 8 times higher that in the maternal serum"
- "Studies have shown that children that have been exposed to THC as babies have an increased risk of short term memory issues, difficulty completing tasks and making decisions. This is especially seen by these children having a hard time in school"
- "Since we all want what's best for your baby- it is important that you not consume any THC while breastfeeding, since there really is no known safe level for consumption"
- " The THC in today's marijuana is much stronger than in years past. THC is stored in fat tissue.
   Every nerve in the body is lined with fat and many body organs have high amounts of fat.
   Because THC is stored in fat the effects of THC last a long time. It is difficult to know exactly how long the THC will stay in a baby's system"
- "Studies have shown that children that have been exposed to THC as babies have an increased risk of short term memory issues, difficulty completing tasks and making decisions. This is especially seen by these children having a hard time in school"
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#### Point Counterpoint

I've read that a little marijuana is fine during pregnancy/breastfeeding

- O "We know that your baby is exposed to any marijuana you use. There is no known safe level of THC consumption during pregnancy or breastfeeding"
- I always pump and dump after using marijuana
  - O "THC is "lipophilic" it loves fats. With all the wonderful fats in breastmilk the THC loves to hang on in the breast milk. In fact in some studies, the THC level in breastmilk was up to 8 times higher that in the maternal serum"
- I've read the study done in Jamaica, it showed no harm from using marijuana during pregnancy.
  - O That was a relatively small study done over a decade ago. The THC in today's marijuana is much stronger than in years past. Larger and more recent studies have repeatedly shown that THC can cause problems for your baby. There is also no benefit at all to your baby of exposure to marijuana.

I used marijuana with my first pregnancy and my 2 year old is fine

O "The most significant problems associated with marijuana use during pregnancy don't become apparent until kids reach school age. Children that have been exposed to THC as babies have an increased risk of short term memory issues, difficulty completing tasks, paying attention and making decisions. All this leads to difficulty, frustration and poor school performance for your child"

O "We all want what's best for your baby- medical professionals believe that the best choice is to not use any marijuana during pregnancy or breastfeeding."

### A Lot to Learn

- Are the effects dose dependent?
- Does use in different trimesters change risk/outcome?
- Are the effects impacted by the type of cannabis used?
- Are the risks of exposure through human milk outweighed by the benefits of breastfeeding?
- How long does THC remain in human milk?
- How concentrated is THC in human milk?
- Are the risks of fetal exposure outweighed by the potential risks of other medications?
- Is exposure to THC different than CBD?

Take Home points:

- Legalization of THC does not appear to be 'going away' and use during pregnancy is rising
- Interaction with a caring health care provider is the number #1 motivator for change by women with SUDs
- Strength of THC is increasing and the original research is on THC of much less strength
- THC crosses the placenta to the fetus
- JHC crosses into breast milk
- There is moderate evidence associating Fetal/newborn THC exposure is associated with Decreased Growth, IQ scores, cognitive function, academic ability and attention problems
- There are no know safe levels for THC use during pregnancy and breastfeeding
- There are no know benefits of THC use during pregnancy and breastfeeding
- There has been an increased rate of pediatric visits and poison control calls related to pediatric THC exposures correlating with legalization of THC

#### Final Thoughts....Recommendations from SOGC

- Health professionals discuss potential adverse health effects of cannabis use during pregnancy with couples contemplating pregnancy or are pregnant
- Encourage to discontinue cannabis use during pre-conceptional period and during pregnancy
  - Use of cannabis for medicinal purposes during pregnancy be strongly discouraged in favor of alternative therapies that have been proven to be safe during pregnancy
  - Women should be encouraged to abstain from cannabis use during lactation and breastfeeding
- Further research is needed on the effects of cannabis on pregnancy and lactation
- Public education should be funded and widely available for those who are pregnant or contemplating pregnancy on the risks posed by cannabis use

#### Helpful Links

- Marijuana Research ... www.ccsa.ca/eng/topics/marijuana/marijuanaresearch/pages/default.aspx
- SOGC CLINICAL PRACTICE GUIDELINE Substance Use in Pregnancy https://sogc.org/wpcontent/uploads/2013/01/gui256CPG1104E.pdf

www.motherisk.org

Marijuana and Your Baby and Tips for Parents www.colorado.gov/pacific/sites/default/files/MJ\_RMEP\_Factsheet-Pregnancy-Breastfeeding.pdf www.colorado.gov/pacific/sites/default/files/MJ\_RMEP\_Factsheet-Tips-for-Parents.pdf

Take Care with Cannabis – www.vch.ca/media/TakeCarewithCannabis.pdf Women and Marihuana Info Sheet – http://bccewh.bc.ca/wp-content/uploads/2016/08/Infor- mation-Sheet-Women-Marijuana030716.pdf

- Consumer Information Cannabis (Marihuana, marijuana) www.hc-sc.gc.ca/dhp-mps/marihuana/info/cons-eng.php
- Do You Know... Cannabis

http://www.camh.ca/en/hospital/health\_information/a\_z\_mental\_health\_and\_addiction\_information/marijuana/Pages/cannabis\_dyk.asp

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