

Cannabis Use and Pregnancy: A Quick Guide for Clinicians

Axel Rodriguez Rosa, MD

Addiction Medicine Fellow

Board Certified Internal Medicine Specialist



Cannabis 101

- The **cannabis plant** contains hundreds of cannabinoids, which include **Tetrahydrocannabinol (THC)** and **Cannabidiol (CBD)**.
- There are several variations of THC, the **main psychoactive component** of cannabis. The most naturally abundant type is **delta-9 THC**.
- If the plant contains **delta-9 THC >0.3%**, it's called **cannabis**; if it contains **delta-9 THC <0.3%**, it's called **hemp**.
- **CBD** is a **non-psychoactive** cannabinoid that allosterically binds to the same receptors THC does.



Is it safe to use cannabis during pregnancy?

No. There is currently no recognized “safe” amount of cannabis in pregnancy.

- At present, it's recommended to avoid cannabis in pregnancy because THC crosses the placenta, and there are uncertain perinatal effects.
- Health care providers should verbally screen all women for cannabis use at their intake for obstetrical care and consider rescreening later in pregnancy, using the **Cannabis Use Disorder Identification Test—Revised** (CUDIT-R)

Source: Sheryl A. Ryan, Seth D. Ammerman, Mary E. O'Connor, COMMITTEE ON SUBSTANCE USE AND PREVENTION, SECTION ON BREASTFEEDING, Lucien Gonzalez, Stephen W. Patrick, Joanna Quigley, Leslie R. Walker, Joan Younger Meek, IBCLC, Margreete Johnston, Lisa Stellwagen, Jennifer Thomas, Julie Ware; Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics* September 2018; 142 (3): e20181889. 10.1542/peds.2018-1889



Is CBD safe during pregnancy?

- There is no comprehensive research studying the effects of CBD on the developing fetus, pregnant mother, or breastfed baby. However, **based on what we do know, there is significant cause for concern.**
- High doses of CBD in pregnant test animals have caused **long-term disruption of testicular function** of developing male fetuses.
- **Epidiolex** (CBD) is the only cannabinoid medication **FDA-approved for seizures** associated with Lennox-Gastaut syndrome or Dravet syndrome.

Source: Commissioner, O. of the. (2016, October 16). *What you should know about using CBD when pregnant or breastfeeding*. U.S. Food and Drug Administration. <https://www.fda.gov/consumers/consumer-updates/what-you-should-know-about-using-cannabis-including-cbd-when-pregnant-or-breastfeeding>



Can cannabis affect the developing baby?

Studies have shown that cannabis use during pregnancy can put the developing baby at risk of the following:

- Fetal growth restriction
- Increased risk of stillbirth
- Preterm birth
- Low birth weight
- Long-term brain development affecting memory, learning, and behavior

Source: *Marijuana and pregnancy*. SAMHSA. (2024, June 6). <https://www.samhsa.gov/marijuana/marijuana-pregnancy>



Impacts of cannabis use during pregnancy and after birth

American Academy of Pediatrics: The evidence for independent, adverse effects on human neonatal outcomes and prenatal development is limited, and inconsistency in findings may be the result of the potential confounding caused by the high correlation between cannabis use and use of other, as well as sociodemographic risk factors. However, **the evidence from the available research studies indicate reason for concern, particularly in fetal growth and early neonatal behaviors.**

CDC: The U.S. Surgeon General recently advised consumers that cannabis use during pregnancy **may affect fetal brain development and may increase the risk of a newborn with low birth weight.** Research also suggests **increased risk for premature birth and potentially stillbirth.**

Source: Sheryl A. Ryan, Seth D. Ammerman, Mary E. O'Connor, COMMITTEE ON SUBSTANCE USE AND PREVENTION, SECTION ON BREASTFEEDING, Lucien Gonzalez, Stephen W. Patrick, Joanna Quigley, Leslie R. Walker, Joan Younger Meek, IBCLC, Margreete Johnston, Lisa Stellwagen, Jennifer Thomas, Julie Ware; Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics* September 2018; 142 (3): e20181889. 10.1542/peds.2018-1889
Source: Commissioner, O. of the. (2019, October 16). *What you should know about using CBD when pregnant or breastfeeding*. U.S. Food and Drug Administration. <https://www.fda.gov/consumers/consumer-updates/what-you-should-know-about-using-cannabis-including-cbd-when-pregnant-or-breastfeeding>



Impacts of cannabis use during pregnancy and after birth (Cont.)

AAP: Prenatal exposure is associated with long-term neurodevelopmental and behavioral deficits (e.g. problems with executive functioning, attention, impulse control, and academic achievement), behavioral and mental health issues (e.g. increased depressive symptoms and externalizing behaviors). These studies have significant limitations due to methodological issues, confounding by other substances and environmental factors, and studies based on lower-potency cannabis.

SAMHSA: Cannabis can cause permanent drop in IQ score when people start using at a young age, even after quitting. It affects timing, movement, and coordination, which can harm athletic performance. Research suggests that people who use cannabis are more likely to have relationship problems, worse educational outcomes, lower career achievement, and reduced life satisfaction.

Source: Sheryl A. Ryan, Seth D. Ammerman, Mary E. O'Connor, COMMITTEE ON SUBSTANCE USE AND PREVENTION, SECTION ON BREASTFEEDING, Lucien Gonzalez, Stephen W. Patrick, Joanna Quigley, Leslie R. Walker, Joan Younger Meek, IBCLC, Margreete Johnston, Lisa Stellwagen, Jennifer Thomas, Julie Ware; Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics* September 2018; 142 (3): e20181889. 10.1542/peds.2018-1889
Source: *Know the risks of marijuana*. SAMHSA. (2024a, July 29). <https://www.samhsa.gov/marijuana>



Does cannabis use affect breastfeeding?

- THC has a low molecular weight, is lipid soluble, and is 99% protein bound, which can cause it to **transfer into human milk and be stored in lipid-filled tissues such as the brain.**
- **Little is known about THC and other cannabinoids in relation to their transfer into human milk** and no information about how the amount transferred is related to the concentration of THC in the cannabis, frequency of use, or the concentration in maternal plasma.
- Persons who are breastfeeding are encouraged to **avoid all cannabis use.**

Source: Sheryl A. Ryan, Seth D. Ammerman, Mary E. O'Connor, COMMITTEE ON SUBSTANCE USE AND PREVENTION, SECTION ON BREASTFEEDING, Lucien Gonzalez, Stephen W. Patrick, Joanna Quigley, Leslie R. Walker, Joan Younger Meek, IBCLC, Margreete Johnston, Lisa Stellwagen, Jennifer Thomas, Julie Ware; Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics* September 2018; 142 (3): e20181889. 10.1542/peds.2018-1889



Should I consider use of other substances in pregnant patients using cannabis?

Several studies have shown higher rates of licit and illicit substance use in pregnant patients who use cannabis are:

- Younger (<25 years of age)
- Lack of a high school diploma
- Unemployed
- Lower-income households
- Cigarette smoking or concurrent use of alcohol
- Significant emotional stressors (e.g., traumatic, financial, or partner-related)
- History of abuse

Current guidance recommends **routine screening of all pregnant women for substance use** by way of validated questionnaires or conversations with patients.

Source: Sheryl A. Ryan, Seth D. Ammerman, Mary E. O'Connor, COMMITTEE ON SUBSTANCE USE AND PREVENTION, SECTION ON BREASTFEEDING, Lucien Gonzalez, Stephen W. Patrick, Joanna Quigley, Leslie R. Walker, Joan Younger Meek, IBCLC, Margreete Johnston, Lisa Stellwagen, Jennifer Thomas, Julie Ware; Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics* September 2018; 142 (3): e20181889. 10.1542/peds.2018-1889



My patient has Cannabis Use Disorder. How can I treat them?

Screening can be performed using the Cannabis Use Disorder Identification Test—Revised (CUDIT-R)

- Hazardous Cannabis use: 8+
- Possible Cannabis Use Disorder (CUD): 12+

If CUD is suspected, use DSM-5 criteria to diagnose.

Currently, there are not pharmacological FDA approved medications and **full cessation, and abstinence is recommended.**

Women using cannabis and desire cessation should be referred to appropriate resources (e.g. substance-use programs) and Addiction Medicine specialist.

Source: Sheryl A. Ryan, Seth D. Ammerman, Mary E. O'Connor, COMMITTEE ON SUBSTANCE USE AND PREVENTION, SECTION ON BREASTFEEDING, Lucien Gonzalez, Stephen W. Patrick, Joanna Quigley, Leslie R. Walker, Joan Younger Meek, IBCLC, Margreete Johnston, Lisa Stellwagen, Jennifer Thomas, Julie Ware; Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics* September 2018; 142 (3): e20181889. 10.1542/peds.2018-1889



My patient has or is interested in a medical cannabis card. What should I do?

- Because cannabis is neither regulated nor evaluated by the FDA, there are **no approved indications, contraindications, safety precautions, or recommendations** regarding its use during pregnancy and lactation.
- There are no standardized formulations, dosages, or delivery systems, and **smoking cannot be medically accepted** during pregnancy and lactation.
- Therefore, **providers should be discouraged from prescribing or suggesting the use of cannabis** for medicinal purposes during the period before pregnancy, and during pregnancy and lactation.
- Pregnant women or women contemplating pregnancy should be **encouraged to discontinue use of cannabis, even if for medicinal purposes**, in favor of an alternative therapy for which there are better pregnancy-specific safety data.

Source: Committee opinion no. 722: Marijuana use during pregnancy and lactation. (2017). *Obstetrics & Gynecology*, 130(4). <https://doi.org/10.1097/aog.0000000000002354>



What are common reasons my patient uses medical cannabis?

The Commonwealth of Pennsylvania has approved several qualifying conditions for use of medical cannabis that include, but are not limited to:

- Anxiety, Cancer, Chronic Hepatitis C, Epilepsy, HIV/AIDS, Multiple sclerosis, Opioid use disorder, PTSD, Severe chronic or intractable pain, Sickle cell anemia, etc.

For more information on qualifying conditions, please visit:

[Medical Marijuana Patients | Department of Health | Commonwealth of Pennsylvania](#)

Providers and patients should have a risk vs benefit discussion regarding alternative evidence-based options for management of conditions in pregnancy and lactation:

[Pregnancy and Lactation Labeling \(Drugs\) Final Rule | FDA](#)



Bottom line

The AAP, ACOG, SAMHSA, CDC, and FDA, all strongly advise against use of cannabis or cannabis-derived products of any kind by any route if a person is or planning to be pregnant and while breastfeeding.



Cannabis Resources

- [Cannabis and Pregnancy | Cannabis and Public Health | CDC](#)
- [MARIJUANA USE AND PREGNANCY](#)
- [Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes | Pediatrics | American Academy of Pediatrics](#)
- [Marijuana Use During Pregnancy and Lactation | ACOG](#)
- [Marijuana During Pregnancy - Know the Risks | SAMHSA](#)
- [Know the Negative Effects and Risks of Marijuana Use | SAMHSA](#)

