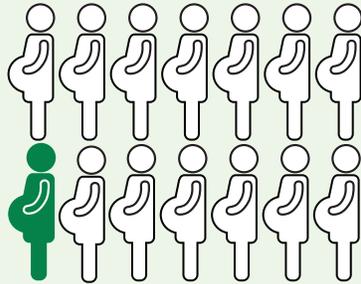


Cannabis is the most commonly used federally illegal drug during pregnancy,¹ with self-reported use rates of 7% during



pregnancy.^{2,3} Popular methods of cannabis use include smoking, edibles, vaping, and topicals.⁴ The two most common cannabis compounds found in these products are delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD). Patients report using cannabis during pregnancy mainly to help with nausea, stress, sleep, and appetite changes.^{5,6}

The US Surgeon General, Centers for Disease Control and Prevention, and the American College of Obstetricians and Gynecologists (ACOG)¹ advise pregnant and lactating patients to abstain from cannabis use. Yet due to limited perinatal data and mixed outcomes, patients and providers may be unsure about safe levels of prenatal cannabis use.⁷ The main psychoactive component in cannabis is THC, which can cross the placenta and has plausible maternal and fetal effects.

Cannabis is the most commonly used federally illegal drug during pregnancy

Effects on perinatal outcomes

- There is a possible increase in risk of miscarriage and stillbirth, but the results are inconsistent among studies, and many studies do not control for important confounders such as tobacco use.^{8,9}
- Some studies suggest an increased risk of neonatal intensive care admission and infant death.^{2,8,10}
- There is evidence that prenatal THC exposure is associated with low birth weight¹⁰ and preterm birth.¹¹
- The limited literature on teratogenicity is conflicting and inconsistent, but include reports of fetal anomalies with maternal THC use such as acrania, gastroschisis, esophageal atresia, and congenital diaphragmatic hernia.¹²

Effects on long-term neurodevelopmental outcomes

The data regarding long-term neurodevelopment impact of cannabis use in pregnancy is also mixed. Some previous studies reported an associations between prenatal cannabis exposure and neurobehavioral changes, mental health issues, autism spectrum disorder, attention problems, attention scores, and learning disorders.^{8,13-16} Other studies have not demonstrated an association with childhood cognitive impairments.^{16,17}

Clinical considerations

Properties of cannabinoids that might be of therapeutic use in pregnancy include analgesia, muscle relaxation, immunosuppression, anti-inflammation, anti-allergic effects, sedation, improvement of mood, stimulation of appetite, anti-emesis, lowering of intraocular pressure, bronchodilation, neuroprotection, and antineoplastic effects. Currently, there is no US Food and Drug Administration (FDA) approval for the use of either THC or CBD for any of these therapeutic uses.

Cannabinoid hyperemesis syndrome (CHS) is important to differentiate from hyperemesis gravidarum. Clinicians should consider CHS in all patients with chronic cannabis use or an atypical course of presumed hyperemesis gravidarum.¹⁸

- Rates of CHS in pregnancy have not been well established due to underreporting and underdiagnosis.
- Unlike hyperemesis gravidarum, CHS often is associated with intractable emesis relieved by frequent hot bathing or shower and is ultimately treated by abstaining from cannabis for at least 2 weeks.

There is inadequate counseling on cannabis use in pregnancy.¹⁹ ACOG recommends providers ask all women about their use of substances, including cannabis, before conception or in early pregnancy. This can be a standard set of questions asked of all patients as part of the detailed initial prenatal intake visit.

Providers should consider a harm reduction approach when abstinence is not realistic to mitigate potential maternal and neonatal risks by educating patients on cannabis effects during pregnancy and lactation.²⁰

Bottom line

Cannabis use during pregnancy may be associated with serious perinatal adverse effects, with no known safe or beneficial level of cannabis exposure during pregnancy. Some studies are limited by methodologic issues, small sample sizes, lack of confirmatory testing, and difficulty controlling for confounders. Additionally, the amount and potency of cannabis was variable and often imprecisely defined. Most studies focused on smoked cannabis rather than other delivery methods, and THC in older studies is less potent than current formulations.

Providers should be nonjudgmental when asking patients about cannabis use, preferably as part of the routine intake information gathering at the initial prenatal visit. Providers should use a shared decision-making approach with the patient, discussing potential adverse effects of cannabis use in pregnancy, limitations of safety data, and offer support and harm reduction advice when abstinence is not realistic.

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Suggested citation:

Prewitt K, Lo J, Ryan K. *Effects of prenatal cannabis use*. The Systematically Testing the Evidence on Marijuana Project; 2022. <https://www.cannabisevidence.org/clinician-resources/clinician-briefs/effects-of-prenatal-cannabis-use/>



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