

Marijuana and Pregnancy

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As of March 2017, 26 states and the District of Columbia had enacted laws broadly legalizing cannabis use for medical and recreational purposes.¹ A recent poll showed that 61% of Americans support legalization of marijuana and women currently support legalization in the same numbers as men.² The poll also show that 76% of individuals in the youngest age group surveyed, 18 to 34-year olds, support legalization, a number notably greater than the combined 56% of the older cohorts who support legalization. A gender breakdown of the supporters is not provided but the large percentage of supporters in that youngest age group strongly suggests that many women of reproductive age support legalization.

Although support for legalization is not automatically associated with cannabis use in women of reproductive age, there is a concern that relaxation of cannabis laws may lead to an increase in the number of these women using cannabis, particularly among pregnant women. For example, a recent analysis of data from the annual National Survey on Drug Use and Health (NSDUH) from 2002 through 2014 showed a 62% increase in the prevalence of past-month marijuana use among pregnant women.³ The authors noted that while the 2014 prevalence of past-month use—3.85%—was not high, the increase over the last 12 years was concerning and could continue to grow.

All the reasons why pregnant women smoke marijuana has not been delineated but the treatment of nausea has been shown to be a leading reason. Indeed, a Canadian survey of 77 women who experienced nausea during pregnancy found that 40 women or 68% self-reported marijuana use to treat this symptom.⁴ From this subgroup, 92% rated marijuana an “extremely effective” or “effective” treatment for nausea. Similarly, a more recent study in the United States found that 96% of 36 women who smoked throughout their pregnancy did so to treat nausea.⁵ The authors suggested that some of the women may choose to self-treat pregnancy-induced nausea with marijuana rather than expose the fetus to prescription medications, which they may perceive as more harmful.

What are the harms to the fetus associated with marijuana use during pregnancy? Delta-9-tetrahydrocannabinol or THC, the main psychoactive cannabinoid in marijuana, is a small lipophilic molecule that readily crosses the placenta and is slowly cleared from the fetus, resulting in prolonged fetal

exposure even after a woman stops using.⁶ A 2016 review by Friedrich et al⁷ documents the multiple effects cannabinoids can have on fetal development including disruptions in angiogenesis, neurogenesis, replication, cellular development, tissue differentiation, and cognitive development. The end-result of such disruptions in animal models have included miscarriage, low birth weight, developmental delays, and birth defects.

Presently, the effects of marijuana on the human fetus have been described as “at best subtle and likely confounded.”⁸ One meta-analysis of child health outcomes found that birth weight among marijuana-exposed newborns showed a pooled mean difference of 109 g or .24 pounds.⁹ Additionally, a positive association was found between in utero exposure to marijuana and the need for placement in the neonatal intensive care unit (NICU). Other fetal outcomes, however, such as gestational age, gestational length, head circumference, APGAR scores, neurobehavioral changes, days spent in the hospital and perinatal mortality were not found to be affected by maternal marijuana use during pregnancy.⁹ These subtle findings, however, may be confounded by several well-known factors influencing fetal outcomes such as psychiatric disorders, socioeconomic factors, educational factors and tobacco use.⁸

More research is clearly needed and it is incumbent on clinicians who treat women of reproductive age as well as pregnant women to ask about cannabis when asking about other substance use such as tobacco and alcohol. It is recommended that women who are or who want to become pregnant and who report marijuana use should be counseled in a non-judgmental manner about the potential negative effects on the fetus.¹⁰ Lastly, women need to know that these question about marijuana use are for screening purposes only, and not an attempt to punish or prosecute her.

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