

# Clinical Pearl: The Effects of Prenatal Exposure to Marijuana: Is Legalization in 21 States a Good Idea for the Fetus?

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Now that recreational marijuana (*Cannabis sativa*) and its active components are legal in 21 states and Washington D.C, many women take it in different forms prenatally and during pregnancy (1). The perception is that now that it has been legalized, it is safe to consume, even during pregnancy (and beyond), and has been recommended for morning sickness (1). However, the American College of Obstetricians and Gynecologists (ACOG) has not recommended its use for any medicinal purposes prenatally, during pregnancy, or lactation (2).

***“Pregnant mothers who were documented to have used marijuana beginning in the first trimester only showed significantly less weight gain in their fetuses (1). If they continued to use throughout gestation, their fetuses had significant less weight gain and smaller head circumferences and a trend toward less growth in length as well (1)”***

There has been much discussion about the potential effects of marijuana on the placenta and the fetus (1,2). In a rat study, marijuana use during gestation has been found to compromise oxygen transfer and nutrition to the fetus, secondary to compromised development of fetal-placental circulation, which resulted in compromised fetal growth (1,3).

In a well-organized study by Dodge and colleagues, in comparing fetal growth of weight, length, and head circumference during pregnancy, pregnant mothers who were documented to have used marijuana beginning in the first trimester only showed significantly less weight gain in their fetuses (1). If they continued to use throughout gestation, their fetuses had

significantly less weight gain and smaller head circumferences and a trend toward less growth in length as well (1). These abnormalities in fetal growth, especially in head circumference, have been associated with abnormalities in neurodevelopment in other studies (1).

Further, what we know about marijuana during pregnancy reflects a large body of literature published before marijuana was legalized and available for controlled trials. Enhanced potency, drug delivery using vape pens, and the potentially deleterious effects of the vehicle for administration have not been evaluated sufficiently.

The situation following delivery can be problematic. Even where marijuana is legal, most states have laws restricting the furnishing of marijuana to those under 18. If a mother continues to use it following the baby's delivery, is breastfeeding a criminal act? In California, Health and Safety Code 11361 establish five to seven years behind bars as the penalty for furnishing or offering to furnish "any marijuana" to a minor. Offering to furnish can include nurses, physicians, hospital administrators, clinic workers, or any health provider that reassures a mom that it is okay to breastfeed while using (4).

***“These data strongly suggest that women who are trying to become pregnant and are pregnant should not use any form of recreational marijuana (1-3) as recommended by ACOG, even for the treatment of morning sickness (1-3).”***

These data strongly suggest that women who are trying to become pregnant and are pregnant should not use any form of recreational marijuana (1-3) as recommended by ACOG, even for the treatment of morning sickness (1-3). Further, after delivery, beyond further potential compromise in developmental outcomes, using marijuana may create an at-risk legal environment for those moms who choose to breastfeed as well as their providers.

## References:

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