

Effects of Marijuana Use During Pregnancy

Marijuana contains almost 500 substances including tetrahydrocannabinol (THC), the psychoactive ingredient in marijuana, that can pass to the baby during pregnancy and harm development.¹ When marijuana is used, regardless of the method (edibles, smoking, or vaping), THC travels rapidly to the baby's brain and fat cells and binds to areas that effect central nervous system development. This means marijuana can harm the baby's brain development and impact long-term effects on cognition and behavior.²

Here are the potential effects marijuana use during pregnancy has on different stages of development:



Pregnancy

- 2.3 times larger risk of stillbirth (loss of unborn baby at or after 20 weeks)³
- Complications such as anemia²
- Dizziness and altered judgement which increases the risk for injuries such as falls⁴



Breastfeeding

- Marijuana can pass into breastmilk potentially harming the baby's development⁵
- Breastfeeding among heavy marijuana users is particularly dangerous since THC is stored in fat tissues and slowly released over time, exposing the baby even if the mother has stopped using⁵
- Study found that one-year olds who were exposed to marijuana through breastmilk during the first month of birth had decreased muscle growth and body movements⁵
- Other studies have found that infants exposed to marijuana through breastmilk had poor sucking, shorter feeding times, less regular feeding, growth delay, and less activity⁵

Newborn

- Fetal growth restriction (baby doesn't gain proper weight before birth)²
- Low birth weight (born weighing less than 5 ½ pounds)⁶
- Preterm birth (born before 37 weeks)⁶
- Small for gestational age (weighing less than the 5th percentile for number of weeks)⁶
- Increased NICU admission⁶
- Increased trembling, high-pitched cry, and poor adaptation to visual stimuli²
- Decreased mean Apgar score at 1 minute⁶
- Babies born to mothers with marijuana use disorder have a higher risk of death within one year of birth⁵
- Second-hand marijuana smoke poses similar harms as tobacco smoke⁴



Early School Age

- Aggressive⁵
- Attention deficits⁵
- Hyperactive⁵
- Impulsive⁵
- Impaired verbal and visual reasoning⁵
- Lower short-term memory⁵
- Lower academic scores²

Pre-Adolescence (about ages 9 to 12)

- Same problems continued from early school age⁵
- Depression⁵
- Anxiety⁵
- Autism spectrum disorder⁵
- Learning disorders⁵
- Psychotic behaviors⁵
- Internalizing and externalizing problems⁵
- Sleep problems⁵
- Lowered cognition⁵
- Social problems⁵
- Thought problems⁵



Adolescence and Young Adulthood

- Lower academic scores²
- Problem behaviors²
- Depression²
- Psychosis²
- Higher risk of using marijuana²
- Higher risk of developing a substance use disorder²

For these reasons, it is highly recommended that pregnant women, women of child-bearing age, and breastfeeding women do not use marijuana.

References:
¹Substance Abuse and Mental Health Services Administration. (n.d.). *Marijuana and pregnancy*. Retrieved October 6, 2022, from <https://www.samhsa.gov/marijuana/marijuana-pregnancy>
²Ryan, S. A., Ammerman, S. D., & O'Connor, M. E. AAP Committee on Substance Use and Prevention, AAP Section on Breastfeeding. (2018, September). *Marijuana use during pregnancy and breastfeeding: Implications for neonatal and childhood outcomes*. *Pediatrics*, 142(3). <https://doi.org/10.1542/peds.2018-1889>
³National Institutes of Health. (2013, December 11). *Tobacco, drug use in pregnancy can double risk of stillbirth*. <https://www.nichd.nih.gov/newsroom/releases/121113-stillbirth-drug-use#>
⁴The American College of Obstetricians and Gynecologists. (n.d.). *Marijuana and pregnancy*. Retrieved October 4, 2022, from <https://www.acog.org/womens-health/faqs/marijuana-and-pregnancy>
⁵Lo, J. O., Hedges, J. C., & Girardi, G. (2022, October). *Impact of cannabinoids on pregnancy, reproductive health, and offspring outcomes*. *American Journal of Obstetrics & Gynecology*, 227(4), 571-581. doi: 10.1016/j.ajog.2022.05.056
⁶Marchand, G., Masoud, A. T., Govindan, M., Ware, K., King, A., Ruther, S., Brazil, G., Ulibarri, H., Parise, J., Arroyo, A., Coriell, C., Goetz, S., Karrys, A., & Sainz, K. (2022, January 27). *Birth outcomes of neonates exposed to marijuana in utero: A systematic review and meta-analysis*. *JAMA Netw Open*. 2022, 5(1):e2145653. doi:10.1001/jamanetworkopen.2021.45653