

Marijuana, Reproduction, and Pregnancy

Marijuana is the most commonly used illicit drug among women of reproductive age or by women who are pregnant.

It is difficult to be certain about the specific effects of marijuana on pregnancy and the developing fetus, in part because those who use it often use other drugs as well, including tobacco, alcohol, as well as the influence of social and genetic factors¹³, and ethical and practical problems in conducting prospective longitudinal studies. We don't know enough yet to be certain about all of the possible risks. We do know that THC, the psychoactive component in marijuana, crosses the placental barrier and is secreted into breastmilk of nursing mothers⁸. This raises important concerns about the potential impact of maternal marijuana use on the developing child, so to be safe, it is strongly recommended that pregnant and breastfeeding mothers do not use marijuana.

CAN MARIJUANA USE AFFECT FERTILITY?

Heavy use of marijuana has been linked to decreased fertility in both men and women. In women, there is evidence that marijuana use may disrupt the menstrual cycle. In men, a number of studies have found a connection between marijuana use and reduced fertility in men⁷. Men who smoke marijuana frequently have significantly less seminal fluid, a lower total sperm count, and their sperm behave abnormally, all of which may affect fertility adversely. Marijuana use can also disrupt in vitro fertilization (IVF) procedures, resulting in fewer eggs retrieved and lower chance of fertilization. In one study, women smoking marijuana 1 year before attempting IVF had 25% fewer eggs retrieved and fewer fertilized¹⁶. These factors can make it difficult for a woman to become pregnant.



CAN MARIJUANA USE AFFECT PREGNANCY?

THC is known to pass from the mother to the developing fetus through the placenta²⁴. This means that the fetus is affected by any amount of marijuana taken by the pregnant woman, placing it at a greater risk of complications occurring. Secondhand marijuana smoke may result in illness or altered consciousness in infants and young children²⁵. The effect of the passive inhalation of marijuana as a result of breathing in the smoke of others is not quantified, but has been associated with altered consciousness in the infant²⁵ and should be avoided. Any form of smoking can disrupt the supply of oxygen and nutrients to the fetus, which can result in restrictions in the growth of the fetus including overall length, foot length, head size and body weight¹³.

Mothers using marijuana to treat medical conditions, like chronic pain, should discontinue use while they are pregnant until more information about the potential harms is available. While the use of marijuana appears to relieve reported symptoms of nausea during pregnancy (though it didn't impact the rate of vomiting)⁴, women should be aware of the fact it has unproven fetal safety and other treatments for morning sickness may be safer. Although marijuana has not been implicated as an agent that causes birth defects¹⁷, there is evidence for adverse neuro-developmental effects after prenatal exposure^{5,9}.

CAN MARIJUANA USE AFFECT THE BABY?

Adverse fetal outcomes related to marijuana use during pregnancy remain unclear. There is some evidence, however, that women who use marijuana during pregnancy are more likely to experience placental complications²¹ and give birth to babies with lower birth weight^{14,12}; temporary poor autonomic control, particularly in terms of regulating their alertness¹⁹, and a "hole in the heart" (ventricular septal defect)²³.

Research suggests that, at ages three to four years, children of mothers who used marijuana while pregnant have poorer verbal, memory and reasoning ability; poorer motor skills and shorter length of play; and are more likely to be fearful, impulsive, inattentive, hyperactive and delinquent⁶. These difficulties appear to persist into adolescence, when they may be accompanied by increased depression and anxiety, along with reading and spelling problems and general underachievement at school⁶. Such deficits may also continue into early adulthood, along with an increased risk for initiation of tobacco and marijuana use^{19,20}.

In addition, there exists some evidence that mothers' marijuana use during pregnancy increases the risk of their children developing childhood cancers, including non-lymphoblastic leukemia, rhabdomyosarcoma (a rare, highly malignant tumor that can occur anywhere in the body), and astrocytoma (a type of brain tumor)¹¹.

Preliminary research suggests that fathers' marijuana use in the year prior to their children's birth is associated with an increased risk of rhabdomyosarcoma in their children¹⁰, and that fathers' marijuana use during conception, pregnancy, or post-natally may be associated with an increased risk of Sudden Infant Death Syndrome (SIDS) in their infants¹⁵.

CAN MARIJUANA USE AFFECT BREAST MILK?

When a breastfeeding mother uses marijuana, THC passes into the breast milk and thus into the baby, where it can be stored in the baby's fatty tissue for several weeks. Infants exposed to THC through breast milk experience increased tremors, poor sucking, slow weight gain, and poor feeding in the first month of life^{18,22}. Studies have also suggested marijuana exposure through breast milk could decrease motor development of the child at one year of age⁸, but little is known for sure about the adverse effects of postnatal marijuana exposure through breastfeeding because of a lack of studies in lactating women.

More research is needed to be certain of the risks to infants from breast milk containing THC, and the American Academy of Pediatrics has recommended that women avoid breastfeeding if they consistently or heavily use marijuana^{1,2}.

CONCERNED ABOUT YOUR OR YOUR PARTNER'S USE?

A woman planning to become, or already pregnant, and her partner are both advised to stop using marijuana and to talk to a health care provider openly about past use and the potential risks of continued use. Your health care provider needs a complete history in order to best provide you with the care you, your partner, and your baby need. They will also be able to help, or refer you to someone else who can help, you or your partner cut down or quit marijuana use.

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