

Fact Sheet

by the Organization of Teratology Information Specialists (OTIS)

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Marijuana (Cannabis)

This sheet talks about exposure to marijuana in pregnancy and while breastfeeding. This information should not take the place of medical care and advice from your health care provider.

What is marijuana?

Marijuana, also called pot, weed, or cannabis, is a drug that comes from a plant called cannabis. Marijuana can either be smoked (inhaled) or eaten (edibles). Marijuana is an illegal substance in parts of the United States. However, some states allow marijuana use by prescription for medical purposes, and some states allow the sale of marijuana for recreational use.

The main active chemical in marijuana is delta-9-tetrahydrocannabinol (THC), which is what causes you to feel high. Another major component of marijuana is cannabidiol (CBD).

The U.S. Food and Drug Administration (FDA) advises against the use of CBD, THC, and marijuana in any form during a pregnancy or while breastfeeding.

What do we know about cannabidiol (CBD)?

CBD use is becoming popular in U.S. society and can be found in many products ranging from coffee and chocolate, to supplements and tinctures, cosmetics, lotions, suppositories, and bath salts. Studies on "THC free" products find that many actually contain a measurable amount of THC. Unfortunately there are no studies looking at the use of CBD during pregnancy or while breastfeeding at this time.

How much is known about the effects of marijuana on a pregnancy?

It is difficult to study marijuana use during pregnancy. Marijuana contains about 400 different chemicals, and some marijuana preparations can be contaminated with other drugs, pesticides, and/or fungi. Most of the older studies focus on women who inhale marijuana, not ingest (eat) it. Taking edibles might lead to higher levels of marijuana in the body. We also know that the THC in marijuana has become more potent (stronger) over the years. Therefore, studies done years ago on marijuana with lower THC levels may not accurately reflect the possible risks for current marijuana users. Some women who use marijuana during pregnancy may have other risk factors such as use of alcohol, tobacco, or other drugs, medical conditions, and/or lack of prenatal care. Finally, information on the amount used and how much is used can be difficult for researchers to accurately collect. All of these factors explain why studies looking at marijuana use during pregnancy sometimes find different results.

I am using marijuana, but I would like to stop before becoming pregnant. How long could it stay in my body?

People eliminate drugs at different rates. This is particularly true for marijuana and its metabolites (breakdown products). The way you use marijuana (inhale, ingest, topical) and how often you use it and how much you take can affect how long its metabolites can stay in your body. For some people, it might take up to 30 days for the THC metabolite to be gone from the body.

I use marijuana. Can it make it harder for me to become pregnant?

Long-term use of marijuana might affect the menstrual cycle, which could make it more difficult to get pregnant. The effects on fertility appear to go away when marijuana use is stopped, or once a woman develops tolerance to the drug.

Does using marijuana increase the risk for miscarriage?

Miscarriage can occur in any pregnancy. One study found that women who used marijuana were at an increased risk of having a miscarriage. Other studies have not confirmed this finding.

Does using marijuana in the first trimester increase the chance of birth defects?

In every pregnancy, a woman starts with a 3-5% chance of having a baby with a birth defect. This is called her background risk. Most studies have not found an increase in the chance for birth defects among babies prenatally exposed to "occasional" marijuana use. A few studies have suggested a small increase in the chance for gastroschisis (a rare birth defect in which the infants' intestines stick out of an opening in the abdominal wall). However, it can be difficult to draw conclusions from these studies because of the limitations outlined above.

While most studies are reassuring regarding birth defects, without good studies among heavy marijuana users, the fact that marijuana is thought to be more potent now, and because of other potential pregnancy complications it is best to avoid marijuana during pregnancy.

Could using marijuana in the second or third trimester cause other pregnancy complications?

Possibly. Similar to what is seen with cigarette smoking, smoking marijuana may increase carbon monoxide levels in the blood, which can decrease the amount of oxygen the baby receives. Some studies have suggested that among women who smoke marijuana regularly, there is an increased chance for pregnancy complications such as premature birth, low birth weight, small length, small head size, and stillbirth. Babies that are born prematurely or with low birth weight can have higher rates of learning problems or other disabilities. In some studies, a dose-response relationship was seen, meaning the more a woman smoked, the higher her risk for these complications to occur. More research is needed to confirm if these complications are caused by the marijuana use itself, or if the women in these studies may have had other risk factors (such as smoking cigarettes).

Both THC and CBD might affect how the placenta works. The placenta is the organ that grows during a pregnancy and controls what can pass from mother to baby and baby to mother. Studies have also shown that THC can cross the placenta during pregnancy and reach the baby's system.

If I smoke marijuana in the third trimester, can it cause my baby to go through withdrawal after birth?

Some newborns exposed to marijuana have been reported to have temporary withdrawal-like symptoms, such as increased tremors, changes in sleeping patterns, and crying. These symptoms usually go away within 30 days.

Does using marijuana in pregnancy cause long-term problems in behavior or learning for the baby?

Possibly. Three studies have followed children prenatally exposed to marijuana, and found that they are at higher risk for problems such as impaired executive functioning (the ability to plan, focus, remember, and multi task), impulsivity, hyperactivity, aggression, depression, and anxiety. These children were also more likely to have problems with attention (ability to pay attention), memory, and academic achievement. When these children reached adulthood, some studies suggest that they are more likely to misuse substances themselves. The problems noted here have been seen more often in children whose mothers were "heavy" marijuana users (smoked one or more marijuana cigarettes per day). The evidence is not conclusive and some studies report conflicting results.

What happens if I use marijuana when I'm breastfeeding?

THC has been detected in breast milk. In one recent study, researchers found that breastfed babies ingest approximately 2.5% of the mother's THC dose. The amount of time THC remains in the milk ranges from 6 days to 6 weeks. Available research has not demonstrated clear health concerns except for a possible delay in motor development (learning to crawl and walk on time) when a woman reports smoking marijuana on a daily basis. Because the baby's brain continues to develop during the time that they are being breastfed, experts are worried about the possible effects this drug may have on a nursing infant when a mother uses it during breastfeeding.

Other factors to consider are possible legal implications if a breastfed baby tests positive for marijuana, the fact that there may be other contaminants (mentioned above) in the marijuana, thereby exposing the breastfed baby to other substances, and the possibility that the baby will be directly exposed to second hand smoke.

Most professional organizations such as the American Academy of Pediatrics, the Academy of Breastfeeding Medicine, and the American College of Obstetricians and Gynecologists advise that breastfeeding mothers avoid using marijuana. Be sure to talk to your healthcare provider about all your breastfeeding questions.

Because marijuana can affect prolactin (a hormone that tells your body to make milk), there is a concern that frequent marijuana users may see a negative effect on the quality and quantity of milk they produce.

If a man uses marijuana could it affect his fertility (ability to get partner pregnant) or increase the chance for birth defects?

In men, marijuana use may decrease sperm count (the number of sperm), and motility (the ability for those sperm to reach the egg). These factors could make it more difficult for a man to get his partner pregnant. These effects are thought to be temporary, and sperm function is expected to return to normal once a man stops using marijuana. In general, exposures that fathers have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures and Pregnancy at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/pdf/.

Please click here for references.

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