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Marijuana and Pregnancy

This sheet talks about the risks that exposure to marijuana can have during pregnancy. With each pregnancy, all women have a 3% to 5% chance of having a baby with a birth defect. 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 recreational drug that comes from the hemp plant. Parts of the plant are dried and smoked in pipes or cigarettes (joints) or sometimes directly eaten. It is an illegal substance in the United States, except in some states that allow marijuana use by prescription for medical purposes.

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

It is difficult to accurately study the effects of marijuana use during pregnancy. Marijuana contains about 400 different chemicals, and some marijuana cigarettes may contain other drugs or pesticides. Some women who use marijuana may also use alcohol, tobacco, or other substances at the same time. Women who use marijuana during pregnancy may have other factors that can increase pregnancy complications, such as lack of prenatal care. Finally, information on the amount, frequency, and timing of marijuana use can be difficult to accurately collect. All of these factors explain why studies looking at marijuana use during pregnancy sometimes find inconsistent results.

I am trying to become pregnant. If I or my partner uses marijuana, do I have a lower chance of becoming pregnant?

In women, long-term use of marijuana may affect the menstrual cycle and lead to a

reduction in hormones involved in reproduction and fertility. In men, an association with reduced sperm count has been documented. These effects do not appear to totally prevent pregnancy, but may lower the chances. The effects on fertility appear to be reversible when marijuana is discontinued.

Will smoking or ingesting marijuana cause birth defects in my baby?

Most studies have not found an increase in the risk for birth defects among babies prenatally exposed to marijuana. The frequency of birth defects was not higher than expected in the babies of 1246 women who reported “occasionally” smoking marijuana during pregnancy. A few studies have suggested a small increase in the risk for gastroschisis (a rare defect in which the infants’ intestines stick out of an opening in the abdominal wall), and one study reported an increased risk for heart defects among babies prenatally exposed to marijuana. It can be difficult to draw conclusions from these studies because most of the women who used marijuana also used other substances at the same time or had other factors that may have increased their risk for these defects.

While most studies are reassuring, in the absence of studies where women smoked more heavily, it is best to avoid marijuana during pregnancy.

Can marijuana harm the baby in any other way?

The main active chemical in marijuana is delta-9-tetrahydrocannabinol (THC), which

is known to cross the placenta during pregnancy. This means it gets into the baby's system, although how THC may impact a developing baby is unclear. Some studies have suggested that for women who smoke marijuana cigarettes regularly, there is an increased risk for premature birth and lower birth weight, length and head circumference. Babies that are born prematurely or with low birth weight have higher rates of infant deaths, learning problems or other disabilities. 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, and may also affect the growth of the baby.

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 and crying. These symptoms usually go away within a few days.

Can my marijuana smoking affect the brain development of the baby?

Differences in brain activity, behavior, and sleeping patterns of infants and children exposed to marijuana in pregnancy have been reported in some studies. It is believed that these children may have more problems with attention, impulsive behavior, academic performance and short term memory. These problems 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?

Marijuana can be passed to infants through their mother's breast milk. Marijuana may also affect the quality and quantity of breast milk

that you make. Although no consistent effects have been noticed in infants exposed to marijuana through breast milk, the American Academy of Pediatrics advises that breastfeeding mothers avoid using marijuana.

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Selected References:

Goldschmidt L, et al. 2004. Prenatal marijuana and alcohol exposure and academic achievement at age 10. *Neurotoxicol Teratol* 26(4):521-32.

Goldschmidt L, et al. 2008. Prenatal marijuana and intelligence test performance at age 6. *J Am Acad Child Adolesc Psychiatry* 47(3):254-263.

Gray T, et al. 2010. Identifying prenatal cannabis exposure and effects of concurrent tobacco exposure on neonatal growth. *Clin Chem* 56(9):1442-1450.

Huizink A. 2009. Moderate use of alcohol, tobacco, and cannabis during pregnancy: New approaches and update on research findings. *Reprod Toxicol* 28:143-151.

Lam PK and Torfs CP. 2006. Interaction between maternal smoking and malnutrition in infant risk of gastroschisis. *Birth Defects Res* 76:182-186.

Leech SL, et al. 1999. Prenatal substance exposure: effects on attention and impulsivity of 6-year-olds. *Neurotoxicol Teratol* 21(2):109-18.

Liston J. 1998. Breastfeeding and the use of recreational drugs alcohol, caffeine, nicotine and marijuana. *Breastfeed Rev* 6(2):27-30.

Smith AM, et al. 2004. Effects of prenatal marijuana on response inhibition: an MRI study of young adults *Neurotoxicol Teratol* 26(4):533-42.

Weinsheimer RL, et al. 2008. Impact of maternal substance abuse and smoking on children with gastroschisis. *J Pediatr Surg* 43:879-883.

Williams L, et al. 2004. Maternal lifestyle factors and risk for ventricular septal defects. *Birth Defects Res A Clin Mol Teratol* 70:59-64.

If you have questions about the information on this fact sheet or other exposures during pregnancy, call OTIS at 1-866-626-6847.