Methylphenidate

This sheet is about exposure to methylphenidate in pregnancy and while breastfeeding. This information is based on available published literature. It should not take the place of medical care and advice from your healthcare provider.

**What is methylphenidate?**

Methylphenidate is a stimulant medication that has been used to treat attention deficit disorder (ADD), attention deficit hyperactivity disorder (ADHD), and sleep disorders (narcolepsy). It has also been used to lower appetite. Methylphenidate is sold under brand names including Ritalin®, Metadate®, Cotempla®, and Concerta®. A transdermal (skin) patch called Daytrana® is approved for children and adolescents.

Sometimes when people find out they are pregnant, they think about changing how they take their medication, or stopping their medication altogether. However, it is important to talk with your healthcare providers before making any changes to how you take your medication. Your healthcare providers can talk with you about the benefits of treating your condition and the risks of untreated illness during pregnancy.

*I take methylphenidate. Can it make it harder for me to get pregnant?*

It is not known if methylphenidate could make it harder to get pregnant. Animal studies have not shown negative effects on fertility (ability to get pregnant) at doses up to 200 times the maximum dose given to humans.

**Does taking methylphenidate increase the chance of miscarriage?**

Miscarriage is common and can occur in any pregnancy for many different reasons. It is not known if taking methylphenidate increases the chance of miscarriage. One small study found a small increased chance for miscarriage in humans. As there can be many causes of miscarriage, it is hard to know if a medication, the medical condition, or other factors are the cause of a miscarriage.

**Does taking methylphenidate increase the chance of birth defects?**

Every pregnancy starts out with a 3-5% chance of having a birth defect. This is called the background risk. Information from studies looking at about 2,200 pregnancies suggests methylphenidate is not expected to increase the chance of birth defects above the background risk. Most studies have reported healthy babies delivered at full-term after exposure to methylphenidate. One large database study suggested an increased chance for heart defects when methylphenidate is used in pregnancy. Other studies have not suggested an increased chance for heart defects. Research has not been done on the skin patch and pregnancy.

**Does taking methylphenidate in pregnancy increase the chance of other pregnancy-related problems?**

Limited research does not suggest an increased chance for other pregnancy-related problems, such as preterm delivery (birth before week 37) or low birth weight (weighing less than 5 pounds, 8 ounces at birth) when methylphenidate is taken as prescribed during pregnancy.

*I need to take methylphenidate throughout my entire pregnancy. Will it cause withdrawal symptoms in my baby after birth?*

The use of methylphenidate during pregnancy can cause temporary symptoms in newborns soon after birth. These symptoms are sometimes referred to as withdrawal. However, this has not been seen with use of methylphenidate when taken as prescribed. Not all babies exposed to methylphenidate will have symptoms. It is important that your healthcare providers know you are taking methylphenidate so that if symptoms occur your baby can get the care that is best for them.

**Does taking methylphenidate in pregnancy affect future behavior or learning for the child?**

Methylphenidate is not expected to increase the chance for behavior or learning issues for the child. Limited studies have shown typical growth in children up to one year of age who were exposed to methylphenidate during pregnancy. Studies have shown no changes in neurodevelopment in children after being exposed to methylphenidate during pregnancy.
Breastfeeding while taking methylphenidate:

Methylphenidate passes into breast milk in small amounts. When taken as prescribed, methylphenidate is not expected to cause problems for a nursing infant. There are reports on 5 nursing infants exposed to methylphenidate through breastmilk. The people who were breastfeeding were taking doses of methylphenidate that ranged from 35-80mg per day. The nursing infants reportedly had typical weights, and typical sleeping and feeding habits. Breastfeeding studies have not been done on the skin patch. Be sure to talk to your healthcare provider about all your breastfeeding questions.

If a male takes methylphenidate, could it affect fertility or increase the chance of birth defects?

A study with 50 participants found that males who had been taking methylphenidate for at least 1 year had a decrease in motility (movement) of sperm. This could affect fertility (ability to get partner pregnant). In general, exposures that fathers or sperm donors have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

Please click here for references.