Methotrexate

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

What is methotrexate?

Methotrexate is a medication that can stop the growth of cells and can interfere with the immune system (the system the body uses to fight off infections). Methotrexate is prescribed to treat many conditions, including cancer and autoimmune conditions like rheumatoid arthritis [https://mothertobaby.org/fact-sheets/rheumatoid-arthritis/], lupus [https://mothertobaby.org/fact-sheets/lupus-pregnancy/], and psoriasis [https://mothertobaby.org/fact-sheets/psoriasis-and-pregnancy/]. Methotrexate was used to induce abortions and is currently used to treat ectopic pregnancies (pregnancies that grow outside the uterus). Some brand names for methotrexate are: Otrexup®, Trexall®, Rheumatrex®, and Rasuvo®.

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 this 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 methotrexate. Can it make it harder for me to get pregnant?

One study on infertility patients treated with methotrexate for ectopic pregnancy suggested a lower number of eggs available for fertilization. This finding was temporary. Other studies have not shown an increased chance of problems with fertility with the use of methotrexate.

The product label for methotrexate recommends people who are pregnant or breastfeeding not use this medication. But, the benefit of using methotrexate may outweigh possible risks. Your healthcare providers can talk with you about using methotrexate and what treatment is best for you.

I am taking methotrexate, but I would like to stop taking it before becoming pregnant. How long does the drug stay in my body?

People eliminate medication at different rates. In healthy adults, it takes up to 1 week, on average, for most of the methotrexate to be gone from the body. Certain medications and people who have reduced kidney function or a condition that leads to extra body fluid may also clear methotrexate more slowly.

Methotrexate lowers the body’s ability to use folic acid. During pregnancy, folic acid is important for development of the baby. If you have recently stopped taking methotrexate and are planning to get pregnant, talk with your healthcare provider about taking folic acid and what dose you should take.

How long do I need to wait to become pregnant after I stop taking methotrexate?

Some healthcare providers suggest waiting 1 to 3 months after stopping methotrexate to ensure the medication has been cleared from the body. However, there are no reports of babies being born with methotrexate-related birth defects when a female stops taking this medication before conception.

Does taking methotrexate increase the chance for miscarriage?

Miscarriage can occur in any pregnancy. Small studies have reported an increased chance for miscarriage. Since methotrexate can be used to abort pregnancies or treat ectopic pregnancies, it seems likely that methotrexate use in early pregnancy would increase the chance of miscarriage.

Does taking methotrexate 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. Taking methotrexate in the first trimester could increase the chance for a specific pattern of birth defects. This includes malformations of the infant’s head, face, limbs, and bones. For other birth defects, like heart defects and oral clefts, the evidence is not strong enough to show that methotrexate is the cause.
Limited evidence suggests that a person who is pregnant will have a chance of having a baby with methotrexate-related birth defects if the pregnancy is exposed to 10 mg or more of methotrexate per week between 6 and 8 weeks after conception (8 to 10 weeks after the first day of her last menstrual period).

One published review of the data reported no increase in miscarriage or birth defect rates in 101 people with rheumatoid arthritis who were exposed to 5-25mg/week of methotrexate in the first trimester. While reassuring, this does not mean there is no increased chance of miscarriage or birth defects when using low-dose methotrexate in the first trimester.

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

Poor growth has been associated with methotrexate use during pregnancy, so use after the first trimester is a potential concern.

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

Developmental delay, learning problems, and intellectual disability have been described in children who were exposed to methotrexate during pregnancy.

**Breastfeeding while taking methotrexate:**

Methotrexate passes into breast milk in small amounts. Some providers do not recommend using methotrexate while breastfeeding. However, some breastfeeding experts suggest that weekly low-dose methotrexate has a low chance of causing problems for the breastfed infant. If a person uses low-dose methotrexate treatment while breastfeeding, monitoring of the baby’s blood count is suggested. Be sure to talk to your healthcare provider about all of your breastfeeding questions.

**If a male takes methotrexate, could it affect fertility (ability to get partner pregnant) or increase the chance of birth defects?**

Methotrexate may cause an increased chance of infertility. Low sperm count has been seen in some males using methotrexate. Most of these males were using high doses of the medication, as well as other medications to treat cancer. Sperm levels returned to normal after the medication was stopped. Males who need to take methotrexate as part of cancer treatment may want to consider banking sperm before treatment.

There are no reports suggesting that males who use methotrexate at the time of conception are more likely to conceive a baby with a birth defect. Four studies noted no increase in birth defects in the children of 65 males who had taken methotrexate around the time of conception. However, due to general concern rather than actual risks, some healthcare providers recommend that males wait at least 3 months after stopping methotrexate before trying to conceive a pregnancy. In general, exposures that fathers or sperm donors have are unlikely to increase the risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

*MotherToBaby is currently conducting a study looking at autoimmune conditions and the medications used to treat these conditions in pregnancy. If you are interested in taking part in this study, please call 1-877-311-8972 or sign up at https://mothertobaby.org/join-study/.*

Please click here for references.