In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called her background risk. This sheet talks about whether exposure to miconazole or clotrimazole may increase the risk for birth defects above that background risk. This information should not take the place of medical care and advice from your health care provider.

**What is miconazole?**
Miconazole is an antifungal medicine used to treat infections. It is commonly placed in the vagina for the treatment of vaginal yeast infections. Miconazole creams can also be put on the skin for localized fungal infections. Miconazole is sold by the brand name Monistat®. Vaginal creams are applied once per day for 1 day, 3 days, or 7 days. The longer the treatment time, the smaller the concentration of medicine that is used in each application. Some experts recommend the longer treatment during pregnancy to lower the chance the infection will happen again. Your healthcare provider can help you decide which treatment is right for you.

**What is clotrimazole?**
Clotrimazole is another antifungal medicine used to treat infections. Like miconazole, it is placed in the vagina for the treatment of vaginal yeast infections. Clotrimazole creams can also be put on the skin for localized fungal infections. Clotrimazole is sold under different brand names including Femcare®, Lotrimin®, and Mycelex®.

**Is it true that women get more yeast infections while pregnant?**
Yes. Pregnant women are more likely to get yeast infections than non-pregnant women.

**I think I have a vaginal yeast infection and I am pregnant. Should I try an over-the-counter antifungal cream?**
If you think you have a vaginal yeast infection during pregnancy, it is important to see your healthcare provider to be sure of the diagnosis. If you have another kind of vaginal infection, it may need different treatment.

**Do medications applied to the skin or vagina get to the baby?**
Topical (on the skin) or vaginal medicines enter your body in lower amounts than oral (pill) medicines. This means less medicine gets to the developing baby. Since topical miconazole and clotrimazole are not well absorbed, they are unlikely to be a concern for the pregnancy.

**Will taking miconazole or clotrimazole during early pregnancy increase the chance for miscarriage?**
More information is needed. One study found a small increased chance for miscarriage with miconazole and clotrimazole, but there were several problems with this study. There is no other evidence that miconazole or clotrimazole increases the chance for miscarriage.

**Can taking miconazole or clotrimazole during the first trimester of pregnancy cause birth defects?**
Most studies have shown that at low doses (<400 mg/day), there is no increased chance of birth defects. Some questions have been raised about the use of miconazole at the same time as other medications, particularly metronidazole, which is an antibiotic. A few studies suggest a possible increased chance of abnormalities of the hands and bones when these medications are used together. There is not enough data from these studies to prove an association. More studies are needed to understand the possible effects of using these medications together during pregnancy.
Is it safe for me to use miconazole or clotrimazole while breastfeeding?

There are currently no studies looking at miconazole or clotrimazole use during breastfeeding. However, because only small amounts of miconazole or clotrimazole could pass into breastmilk when used topically or intravaginally, breastfeeding is not thought to be a concern. Miconazole and clotrimazole have also been used directly on infants to treat fungal infections. Talk to your healthcare providers about your breastfeeding questions.

What if the father of the baby takes miconazole or clotrimazole?

There are no studies looking at possible risks to a pregnancy when the father takes miconazole. 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/.

Selected References:

- Tiboni GM et al. 2008. Teratogenic effects in mouse fetuses subjected to the concurrent in utero exposure to miconazole and metronidazole. Reprod Toxicol. 26(3-4):254-61

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