Sulfamethoxazole/Trimethoprim (Bactrim® or Septra®)

This sheet is about exposure to sulfamethoxazole-trimethoprim in pregnancy and while breastfeeding. This information is based on published research studies. It should not take the place of medical care and advice from your healthcare provider.

What is sulfamethoxazole-trimethoprim (SMZ-TMP)?

Sulfamethoxazole and trimethoprim (SMZ-TMP) are two medications that have been used together to treat bacterial infections, including urinary tract infections (UTIs). They belong to a class of medications known as sulfonamide antibiotics. The SMZ-TMP combination is sold under the brand names Bactrim®, Septra®, or Sulfatrim®.

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.

The American College of Obstetricians and Gynecologists (ACOG) states that SMZ-TMP can be used in the first trimester if no acceptable alternatives are available, and that SMZ-TMP can be considered a first-line treatment for UTIs in the second and third trimester. Your healthcare provider can talk with you about using sulfamethoxazole-trimethoprim and what treatment is best for you.

I take SMZ-TMP. Can it make it harder for me to get pregnant?

It is not known if SMZ-TMP can make it harder to get pregnant.

Does taking SMZ-TMP increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. Two studies reported an increased chance of miscarriage with the use of SMZ-TMP in the first trimester. However, one of these studies did not look at other factors that might have contributed to the results. As there can be many causes of miscarriage, it is hard to know if a medication, the condition being treated, or other factors are the cause of a miscarriage.

Does taking SMZ-TMP increase the chance of birth defects?

Birth defects can happen in any pregnancy for different reasons. Out of all babies born each year, about 3 out of 100 (3%) will have a birth defect. We look at research studies to try to understand if an exposure, like SMZ-TMP, might increase the chance of birth defects in a pregnancy.

It is not known if taking SMZ-TMP can increase the chance of birth defects. A few studies have reported an increased chance of birth defects such as heart defects, neural tube defects (defects of the brain and spinal cord), cleft lip and/or palate (opening in the top lip and/or the roof of the mouth), and urinary tract defects. However, these studies did not control for other factors that could have affected the results. Also, other studies have not shown an increased chance of birth defects with SMZ-TMP use in the first trimester.

Trimethoprim might lower the level of folic acid in the body. Folic acid is a B vitamin that helps the body make new healthy cells and, when taken at specific doses, can help reduce the chance of certain birth defects, such as spina bifida, in the baby. It is recommended that people who are pregnant or planning a pregnancy consume between 400-800 micrograms of folic acid each day from foods or vitamin supplements. If SMZ-TMP is taken during the first trimester, your healthcare provider might suggest that you take more folic acid. Talk with your healthcare provider about how much folic acid is right for you. For more information on folic acid, see the MotherToBaby fact sheet at https://mothertobaby.org/fact-sheets/folic-acid/.

Does taking SMZ-TMP in pregnancy increase the chance of other pregnancy-related

problems?

Some studies suggest taking SMZ-TMP might increase the chance of preterm delivery (birth before week 37), low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth), and the baby being small for gestational age (smaller in size compared to babies of the same age). However, this medication is often used to treat UTIs, and people who are pregnant with UTIs have a greater chance for some of the same complications. This makes it hard to know if it is the medication, the condition being treated, or other factors that can increase the chance for these complications.

Some authors have recommended not taking sulfonamides such as sulfamethoxazole after 32 weeks of pregnancy. There is a theoretical concern (not proven) that sulfonamide use near the end of pregnancy can increase the chance for severe jaundice (a buildup of bilirubin in the blood that makes the eyes and skin look yellow) and other related complications in the baby. Talk with your healthcare provider about your condition and the treatment that is right for you.

Does taking SMZ-TMP in pregnancy affect future behavior or learning for the child?

Studies have not been done to see if SMZ-TMP can increase the chance of behavior or learning issues for the child.

Breastfeeding while taking SMZ-TMP:

SMZ-TMP gets into breast milk in small amounts. Of 12 people who took SMZ-TMP during breastfeeding, two reported poor feeding in their infants. No other side effects were reported. If you suspect the baby has any symptoms (such as poor feeding) contact your child's healthcare provider.

If the baby is born before 37 weeks of pregnancy, has severe jaundice, or glucose-6-phosphate dehydrogenase (G6PD) deficiency (an uncommon genetic condition in which the liver does not break down red blood cells properly), talk with your healthcare provider and your baby's pediatrician about using SMZ-TMP and breastfeeding. While some people in these situations might need to stop breastfeeding while taking SMZ-TMP, it is not always necessary. Be sure to talk to your healthcare provider about all your breastfeeding questions.

If a man takes SMZ-TMP, could it affect fertility or increase the chance of birth defects?

The use of SMZ-TMP was found to lower the amount of sperm that men made after they took the medication for one month. This could affect fertility (ability to get a partner pregnant). Studies have not been done to see if a man's exposure to SMZ-TMP could increase the chance of birth defects. 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.

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