Topical Tretinoin

This sheet is about using topical tretinoin 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 tretinoin?

Topical tretinoin is a medication that is applied to the skin to treat acne, prevent wrinkles, and help with other skin problems. Some brand names for tretinoin include Altreno®, Atralin®, Avita®, Retin-A®, Refissa®, Renova® and Tretin-X®. The amount of tretinoin in each brand can vary.

Tretinoin belongs to a group of medications called the retinoids. Retinoids are related to Vitamin A. Other medications in the retinoid family are isotretinoin (Accutane®, Claravis®), acitretin (Soriatane®) and adapalene (Differin®). MotherToBaby has a fact sheet on isotretinoin here: https://mothertobaby.org/fact-sheets/isotretinoin-accutane-pregnancy/.

Tretinoin is also available in an oral form (to take by mouth) for the treatment of leukemia. This sheet will discuss the topical (applied to skin) use of tretinoin.

My healthcare provider said that tretinoin is like isotretinoin. I've heard that it should not be used during pregnancy.

Tretinoin is related to a medication called isotretinoin. Isotretinoin is a medication known to cause birth defects involving the face, heart and brain. However, isotretinoin is taken by mouth and easily enters a person's bloodstream at higher levels than with topical use of tretinoin. When tretinoin is applied to the skin, lower levels pass through the skin and get into the bloodstream than with oral (taken by mouth) isotretinoin.

In general, skin serves as a good barrier. Because of this, only a small amount of the tretinoin is likely to be absorbed with topical (skin) exposure when used as directed. More tretinoin could be absorbed into the person's bloodstream if tretinoin is used on skin that is broken or irritated, or when it is used more than needed, or when used over a large area of the body. In general, the less tretinoin that is used on the skin, the less likely there will be risks to the fetus. However, because there might still be a small amount of tretinoin absorbed through the skin, the safest approach may be to avoid use of tretinoin during pregnancy.

I use topical tretinoin. Can it make it harder for me to get pregnant?

Studies have not been done to see if tretinoin can make it harder to become pregnant.

I am using tretinoin, but I would like to stop using it before becoming pregnant. How long does it stay in my body?

The time it takes the body to metabolize (to process) medication is not the same for everyone. In healthy non-pregnant adults, it takes up to 1 day, on average, for most of the tretinoin to be gone from the body. The makers of oral isotretinoin suggest that women stop using isotretinoin 1 month before trying to get pregnant. Based on this suggestion for isotretinoin, it may be suggested to stop using tretinoin 1 month before trying to get pregnant.

Does using topical tretinoin increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. The topical use of tretinoin is not expected to increase the chance for miscarriage.

Does taking tretinoin 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. Several studies have tried to learn if use of topical tretinoin could harm a pregnancy. These studies have not found a greater chance for birth defects with proper application of tretinoin to the skin.

However, there have been case reports of babies born with birth defects after women used tretinoin on their skin during pregnancy. Usually, a few case reports do not cause healthcare providers to worry, but the birth defects

reported in these case reports are similar to the birth defects seen in babies exposed to oral isotretinoin use during pregnancy. Since tretinoin and isotretinoin are related, it is possible that these two medications can affect the baby in the same way. Because many women have used tretinoin during pregnancy and have not had babies with a birth defect, the chance for birth defects is probably low. However, it has generally been recommended not to use tretinoin in pregnancy.

Does using tretinoin in pregnancy increase the chance of other pregnancy related problems?

Studies that have looked at this question have not reported a greater chance for preterm delivery (delivery before 37 weeks of pregnancy) with proper application of tretinoin to the skin.

If I stop using tretinoin in the first trimester, is it okay to start using it again later in my pregnancy?

During the first 3 months of pregnancy, the baby's organs are forming. In months 4 through 9, the baby's body and brain are growing. Tretinoin use in the 2nd and 3rd trimesters is less likely to cause a birth defect. However, until more information is available, avoiding this product throughout pregnancy might be the best course of action. For general information on the timing of exposures in pregnancy, see the MotherToBaby fact sheet on critical periods of development at https://mothertobaby.org/fact-sheets/critical-periods-development/.

Does using tretinoin in pregnancy affect future behavior or learning for the child?

Studies have not been done to see if tretinoin can cause behavior or learning issues for the child.

Breastfeeding while using tretinoin:

Tretinoin use during breastfeeding has not been studied. However, when used on your skin, very little tretinoin passes into your body, and so the amount in breast milk would probably be small. Be sure to talk to your healthcare provider about all of your breastfeeding questions.

If a man used topical tretinoin, could it affect fertility or increase the chance of birth defects in a partner's pregnancy?

Studies have not been done to see if topical tretinoin use could affect a man's fertility (ability to get a woman pregnant) or 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.

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, July 1, 2024.