Tretinoin (Retin-A®)

This sheet talks about using topical tretinoin in a pregnancy and while breastfeeding. This information 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 Atralin®, Avita®, Retin-A®, Renova®, Refissa® and Tretin-X®.

Tretinoin belongs to a group of medications called the retinoids. Retinoids are related to Vitamin A which is required, in small amounts, for normal development. Other medications in the retinoid family are isotretinoin (Accutane®, Claravis®), acitretin (Soriatane®) and adapalene (Differin®).

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 women should not use isotretinoin in a pregnancy.

Much of the concern about tretinoin is because it is a sister drug to isotretinoin, a medication known to cause birth defects involving the face, heart and brain. However, isotretinoin is taken by mouth, and easily enters the mother’s bloodstream in relatively large amounts, and can then reach the developing baby.

Tretinoin is applied to the skin (topically), which means lower levels pass through the skin and get into the mother’s bloodstream than with isotretinoin. Applying tretinoin to broken skin, using more than is needed on an area, or using it over a large area will cause more of the tretinoin to pass through the skin. In general, the less tretinoin that is used on the mother’s skin, the less likely there will be risks to the baby.

For information on isotretinoin, please see the MotherToBaby fact sheet at https://mothertobaby.org/fact-sheets/isotretinoin-accutane-pregnancy/pdf/.

I am using tretinoin now, but would like to stop using it before becoming pregnant. How long should I wait after I stop using it before I try to get pregnant?

Tretinoin stays in the body for less than a day after you stop using it. The makers of oral isotretinoin suggest that women stop using isotretinoin one month before trying to get pregnant. Based on this suggestion for a sister drug, a safe approach would be to stop using tretinoin one month before trying to get pregnant. However, if you get pregnant by mistake during that month, you can be reassured that the chances your use of tretinoin has harmed your baby are very small.

If I am using topical tretinoin for acne, could I have a greater chance for a miscarriage?

Miscarriage can occur in any pregnancy. The topical use of tretinoin is not known to increase the chance for miscarriage.

Can tretinoin increase the chance to have a baby with a birth defect?

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. In addition, miscarriage can occur in any pregnancy.
Several studies have tried to learn if topical tretinoin use could harm a pregnancy. These studies have not found a greater chance for birth defects with proper application of tretinoin to the skin.

There have been reports of babies born with birth defects after their mothers used tretinoin on their skin during pregnancy. Usually, a few reports do not cause healthcare providers to worry, but the birth defects reported in these cases are similar to the birth defects seen in babies whose mothers took isotretinoin 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 risk for birth defects is probably low. However, it is generally recommended not to use tretinoin in pregnancy.

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

During the first three months of pregnancy, the baby’s organs are forming. In months four through nine, the baby’s body and brain are growing. Because the organs form in the first trimester, tretinoin use in the second and third trimesters is unlikely to cause a birth defect.

Some studies have not found a greater chance for preterm delivery (delivery before week 37) with proper application of tretinoin to the skin.

However, until more information is available, avoiding this product throughout pregnancy may 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/pdf/.

Can I use tretinoin while I am breastfeeding?

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 be expected to be small. Be sure to talk to your healthcare provider about all of your breastfeeding questions.

What if the father of the baby uses tretinoin?

There are no studies looking at possible risks to a pregnancy when the father is using tretinoin. 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/.

Please click here for references.