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## Topical Acne Treatments and Pregnancy

This sheet talks about the risks that exposure to topical acne treatments can have during pregnancy. With each pregnancy, all women have a 3% to 5% chance of having a baby with a birth defect. This information should not take the place of medical care and advice from your health care provider.

### *What are topical acne treatments?*

Topical acne treatments are medications applied directly on the skin that are used in the treatment of acne and other skin problems. Topical acne treatments can contain many different ingredients, but common active ingredients are benzoyl peroxide, azelaic acid, glycolic acid, and salicylic acid.

### *Can I use tretinoin (Retin A<sup>®</sup>) for severe acne during my pregnancy?*

Tretinoin is different from other topical treatments that will be discussed here. It belongs to a group of medications called retinoids, which can cause birth defects when taken by mouth. The amount of tretinoin absorbed through the skin is low, and studies have reported that women who used topical tretinoin during pregnancy did not have an increased risk for birth defects. However, due to the theoretical concern and the availability of other topical acne products, tretinoin use is discouraged during pregnancy. Please refer to the OTIS fact sheets about [tretinoin](#) and [isotretinoin](#) for more information on this group of medications.

### *Can using topical acne treatments affect my ability to get pregnant?*

No. Topical acne treatments are not known to decrease the likelihood of you becoming pregnant.

### *Are topical acne treatments generally safe to use during pregnancy?*

Over-the-counter skin treatments have not been associated with an increased risk when used during pregnancy. Studies have shown that in most cases only 5% to 10% of the active ingredients are absorbed through the skin into your system. Since so little of the medication passes into the body, the amount that gets to the developing baby, if any, is unlikely to be high enough to cause birth defects.

If you apply acne treatments over broken or very irritated skin, more of the active ingredients may be absorbed into your system. Also, many prescription products may have higher amounts of the active ingredients than over-the-counter products, so the amount of medication from the prescription topical treatments that is absorbed into the body may be higher. However, even these amounts are not likely to cause harmful effects on the baby.

### *I read that salicylic acid can cause birth defects in babies. Why is it safe to use as a topical treatment?*

There may be concern when a pregnant woman takes acetylsalicylic acid (aspirin), a related medication which is taken by mouth. At doses used for pain relief, aspirin has been shown to interfere with the development of the baby in some reports. Low dose aspirin (less than 100mg/day) has been well studied in pregnancy and does not appear to increase the risk of birth defects or other abnormal pregnancy outcomes. When applied on the

skin, the amount of salicylic acid that enters the body would be much less than when a woman takes low dose aspirin. For this reason, it is unlikely that topical salicylic acid would pose any risk to a developing baby.

***Can using topical benzoyl peroxide during pregnancy cause birth defects?***

There are no studies looking at women who use topical benzoyl peroxide during pregnancy. Because only about 5% of the amount applied on the skin is absorbed into the body, it is not likely to increase risk for birth defects.

***Can using azelaic acid or glycolic acid cause any problems in my pregnancy?***

Azelaic acid and glycolic acid have not been studied in pregnancy. These medications are absorbed into the skin in small amounts, so it is not likely that using topical skin treatments containing either azelaic acid or glycolic acid would cause any problems for your baby.

***What if my topical product contains a different active ingredient other than benzoyl peroxide, azelaic acid, or glycolic acid? Will it still be safe to use?***

There are many topical acne treatments available over-the-counter or by prescription, and some of them may not contain the same active ingredients that are discussed in this fact sheet. If you have any questions about the active ingredients in your topical acne treatment, please call OTIS to speak with one of our specialists.

***Is it safe to breastfeed while using any of these topical treatments?***

Yes. Since so little of the topical treatments are absorbed by the skin, there is little, if any, of the medication that will pass into the breast milk. However, make sure that the medication is not placed on the breast area or in any area that may come in contact with

your baby's skin before the medication has dried.

***What if the father of the baby uses topical acne treatments?***

There are no studies looking at possible risks to a pregnancy when the father uses topical skin treatments. In general, exposure of the father is unlikely to increase the risk for birth defects because the father does not share a blood connection with the developing baby. For more information, please see the OTIS fact sheet *Paternal Exposures and Pregnancy*.

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**Selected References:**

Akhavan A and Bershad S. 2003. Topical acne drugs: review of clinical properties, systemic exposure, and safety. *Am J Clin Dermatol* 4(7): 473-492.

CLASP Collaborative Group. 1995. Low dose aspirin in pregnancy and early childhood development: follow up of the Collaborative Low Dose Aspirin Study in Pregnancy. *Br J Obstet Gynaecol* 102:861-868.

Fiume MZ. 1998. Final report on the safety assessment of glycolic acid, ammonium, calcium, potassium, and sodium glycolates, methyl, ethyl, propyl, and butyl glycolates, and lactic acid, ammonium, calcium, potassium, sodium, and tea-lactates, and lauryl, myristyl, and cetyl lactates. *Int J Toxicol* 17(Suppl):1-241.

LoureiroKD, et al. 2005. Minor malformations characteristic of the retinoic acid embryopathy and other birth outcomes in children of women exposed to topical tretinoin during early pregnancy. *Am J Med Genet* 136(2):117.

Nacht S, et al. 1981. Benzoyl peroxide percutaneous penetration and metabolic disposition. *J Am Acad Dermatol* 4:31-37.

Song S, et al. 2003. Combined repeated dose and reproductive/developmental toxicities of benzoyl peroxide. *J Toxicol Public Health* 19(2):123-131.

Shapiro L, Pastuszek A, Curto G, Koren G. Safety of first-trimester exposure to topical tretinoin: prospective cohort study. *Lancet*. 1997 Oct 18;350(9085):1143-4.

Yeung D, et al. 1983. Benzoyl peroxide: percutaneous penetration and metabolic disposition. II. Effect of concentration. *J Am Acad Dermatol* 9(6):920-924.

*If you have questions about the information on this fact sheet or other exposures during pregnancy, call OTIS at 1-866-626-6847.*