



MotherToBaby

Medications & More During Pregnancy & Breastfeeding
Ask The Experts

Fact Sheet

by the **Organization of Teratology Information Specialists (OTIS)**

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Self-tanners, Tanning Pills, and Tanning Booths

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 self-tanners, tanning pills and tanning booths may increase the risk for birth defects over that background risk. This information should not take the place of medical care and advice from your health care provider.

What are self-tanners?

Self-tanners are lotions, gels, and sprays that are applied to the skin to darken it, making the skin look “tan” without sun exposure. The active ingredient in self-tanners that makes your skin darker is dihydroxyacetone (DHA). (Not to be confused with the other DHA, docosahexaenoic acid, an omega-3 fatty acid found in some foods and dietary supplements.)

DHA often comes from plant sources such as sugar beets and sugar cane, and is considered a non-harmful skin-coloring agent. The Food and Drug Administration (FDA) approved DHA as a tanning product in the United States in the 1970’s. Most self-tanning products that you can buy in stores contain 3-5% DHA, while the products used by professionals contain 5-15% DHA.

The tan color will last about a week, and eventually disappears as new skin replaces old skin. Self-tanning products do not provide protection from the harmful effects of the sun. You should still use sunscreen and protective clothing to shield yourself from the sun when using these products.

Are self-tanners absorbed into my bloodstream if I’m using them on my skin?

Although not well-studied, it is estimated that only one-half of one percent (0.5%) of DHA is absorbed into the bloodstream when self-tanners are applied on the skin. There is no information available as to whether this very small amount is able to cross the placenta and get into the baby’s circulation.

What about using booths which spray self-tanner on me?

The FDA limits the use of DHA to external application only and has not approved its use as an all-over spray. Avoid using it near mucous membranes (eyes, eyelids, mouth, lips, nose or ears). This may be hard to avoid when using a “spray tanning” booth. You should request protective measures to cover your eyes, mouth and nose, to prevent inhaling the chemical.

Can using self-tanners during my pregnancy cause birth defects?

There is no published information suggesting that using self-tanners during pregnancy causes birth defects. When self-tanners are used, it is thought that only very small amounts of DHA are absorbed into the bloodstream through the skin. Therefore, very little DHA would be available to get to the baby if it does cross the placenta. It is possible that if you are inhaling the self-tanning spray fumes in tanning booths, or applying the product to mucous membranes, more of the DHA could get into your system and result in higher blood levels. Right now there is no information to prove the safety of using self-tanners while pregnant.

What about using tanning booths while pregnant?

Ultraviolet rays do not enter the uterus, so the baby is protected while you are pregnant. However, dermatologists recommend avoiding tanning beds altogether, whether you are pregnant or not. If your body becomes overheated, your body temperature will rise, causing the baby’s body temperature to increase (called hyperthermia). With too much exposure, this might increase the chance for miscarriage or an opening in the spine (spina bifida). For

more information, please see the MotherToBaby fact sheet Hyperthermia at <https://mothertobaby.org/fact-sheets/hyperthermia-pregnancy/>.

Can using self-tanners, tanning pills, or tanning booths make it more difficult for me to become pregnant?

There is no evidence to suggest that using self-tanners makes it more difficult to become pregnant, as very little of the DHA is absorbed into the bloodstream. Tanning pills are taken orally, so there is a greater chance that a person could ingest a very large amount of canthaxanthin. There are no studies regarding the safety of using tanning pills while trying to become pregnant. Using tanning booths is not expected to make it more difficult to become pregnant.

Can I use tanning pills when I am pregnant or breastfeeding?

Tanning pills are tablets containing a chemical called canthaxanthin as the main active agent. A person has to ingest a very large amount of canthaxanthin in order for his or her skin to change color. Although canthaxanthin, when used in small amounts, is approved by the FDA as a color additive in food, tanning pills are not approved by the FDA. There are no studies on the use of canthaxanthin during pregnancy or breastfeeding. Be aware that harmful effects in adults have been reported, including eye damage, liver damage, nausea, cramping, diarrhea, severe itching, and welts. It may be best to avoid the use of tanning pills during pregnancy or while breastfeeding. Canthaxanthin use has also been reported to cause an orange discoloration of the plasma, which may or may not cause discoloration of breast milk. Be sure to talk to your health care provider about all your choices for breastfeeding.

Is it a problem if the baby's father is using self-tanners, tanning pills, or tanning booths while I am trying to become pregnant?

For males, there is no evidence that using any of the self-tanning products or tanning pills will cause birth defects. However, constant spikes in body temperature can decrease sperm production, so a male should be careful not to become overheated in a tanning booth. 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/>.

References Available By Request

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