Hair Treatments

This sheet talks about exposure to hair treatments in pregnancy and while breastfeeding. This information should not take the place of medical care and advice from your healthcare provider.

What are the different types of hair treatments?

For this fact sheet, hair coloring includes temporary dyes, semi-permanent dyes, and permanent dyes. Coloring, curling (permanents), bleaching, and straightening (relaxers) are some types of hair treatments. Common chemicals used in hair dyes are hydrogen peroxide, ammonia, and alcohols. For hair curling or permanent wave, the most common chemicals used are ammonium thioglycolate and ammonia. Hair bleaching chemicals have hydrogen peroxide. Hair straighteners (relaxers) use a variety of chemicals such as ammonium thioglycolate, or in older preparations, sodium hydroxide. Any or all the chemicals might irritate the skin, nose, and throat. A strong smell does not mean that you are having a high level of exposure. You can contact MotherToBaby with the ingredient list for your products to learn more about your hair treatments.

Hair treatments are regulated as cosmetics by the Food and Drug Administration (FDA). There is no requirement to thoroughly test these products in humans for safety before they go onto the market. You can learn more about cosmetic regulations by visiting this FDA website: https://www.fda.gov/Cosmetics/ProductsIngredients/Products/ucm127988.htm.

Do I absorb hair coloring/dye through my skin?

If used as recommended by the manufacturer, the amount absorbed is not thought to be enough to cause a problem for the developing baby. Under normal conditions, the amount of dye that is absorbed by the healthy skin of the scalp is small. The amount that can be absorbed depends on the health of the skin, the levels (dose) of active ingredients, the area exposed (how much skin comes in contact with the solutions) and how often you use it. The low levels of hair dye usually absorbed through the skin after application are removed from your body in the urine.

Can I use hair treatment products made outside of the United States?

Hair treatments that are not made in the United States might have dangerous substances or contaminants such as heavy metals, including lead, cadmium, nickel, arsenic or mercury. In the U.S. the amount of metals allowed in cosmetics is regulated. In other countries, these agents may not be regulated and might be found at high levels in the cosmetic product.

I work full time as a cosmetologist. Can it make it harder for me to become pregnant?

There is no recommendation that a cosmetologist should stop working because of pregnancy. Cosmetologists stand on their feet for long periods of time and have exposure to chemicals in the workplace. Recent studies looking at miscarriage, preterm delivery (delivery before 37 weeks of pregnancy), growth, birth defects, and developmental milestones have not found an increased chance for any of these outcomes in the children of hairdressers.

A recent meta-analysis of 19 articles reviewing the reproductive outcomes of hairdressers and cosmetologists reported a small increased chance for: the time it took to get pregnant, babies that were small for their gestational age, low birth weight and pregnancy losses. Besides the composition of the hair product, different factors are involved in this occupational setting, such as the types and mixtures of chemicals used at the workplace, work conditions, ventilation, and working hours.

All studies support the importance of proper working conditions. Working in a well-ventilated area, wearing protective gloves, taking frequent breaks, practicing safe handling and storage of hair care products, and avoiding eating or drinking in the workplace are all important factors that can lower chemical exposures.

MotherToBaby has a general fact sheet on workplace exposures and ways to reduce potential exposures at https://mothertobaby.org/fact-sheets/reproductive-hazards-workplace/pdf/. Your worksite should provide the manufacturer’s Safety Data Sheets (SDS) on all chemicals and proper personal protection for all parts of your job. Be certain to use them, even when not pregnant. By working in proper conditions, it can decrease the chemical exposures that can come from working and being around hair products.
Does performing/getting hair treatments increase the chance for miscarriage?

Miscarriage can occur in any pregnancy. There are no studies on the effect of hair dye, hair perms, or hair relaxers during human pregnancy. Studies in laboratory animals exposed to dyes 100 times higher than normally used in humans do not suggest a greater chance for miscarriage. Any of these products applied to the scalp could be absorbed in small amounts and could be found in the blood in low levels. Because little would be in the blood, very little would be able to get to the developing baby under normal use.

Does performing/getting hair treatments increase the chance of birth defects?

Every pregnancy starts with 3-5% chance of having a birth defect. This is called the background risk. A study on people that received hair treatments during the first trimester of pregnancy did not find a greater chance for specific birth defects (hypospadias and cryptorchidism). At this time, there are no other studies on the possible effects of preforming/getting hair treatments during the first trimester. It is unlikely that large amounts of these products would be absorbed when used correctly. Therefore, little would be able to get to the developing baby under normal use.

Does performing/getting hair treatments increase the chance for pregnancy complications?

No increase of low birth weight or preterm delivery was observed in a study in people who were pregnant and used hair straighteners.

Does performing/getting hair treatments in pregnancy cause long-term problems for the baby?

It is not known if there is an increased chance of long-term problems for children exposed to hair treatments during pregnancy. While data is limited, there are reports on pregnancy outcomes of hairdressers and shop assistants. No increased chance for problems in their children were reported.

Can I breastfeed while performing/getting hair treatments?

It is not known if hair treatments affect a breastfeeding baby. It is unlikely that large amounts of any of the chemical would enter the breast milk because so little enters the blood of the person who is breastfeeding. In most cases, using hair tints or other cosmetic hair chemicals is not a reason to stop breastfeeding. Be sure to talk to your healthcare provider about all your breastfeeding questions.

I preform/get hair treatments. Can it make it harder for me to get my partner pregnant or increase the chance of birth defects?

It is not known if hair treatment affect male fertility. 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 http://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/pdf/.

Please click here for references.