Microblading in Pregnancy: What to Know before ‘Going under the Needle’

By Angela Messer, MS, Teratogen Information Specialist, MotherToBaby California

“I love the way my eyebrows look!” Emily just found out she was 6 weeks pregnant, and had started the process of microblading (a cosmetic tattooing technique, in which a tool made of small needles is used to add semi-permanent pigment to the skin; resembling the hair on the brow) before she knew she was pregnant. Logging into the MotherToBaby chat for some guidance, after online searching resulted in mixed answers, she wanted to know if it was still ok to continue microblading during her pregnancy.

Emily’s question is a common one we receive here at MotherToBaby. With new and upcoming products in the beauty industry, many women want to know if it is ok to start or continue treatments like microblading when they become pregnant. Procedures like these often require more than one visit, broken up between weeks or even months. For pregnant women, the “nine month stretch” raises questions about their use in pregnancy.

The difficulty in answering a question like Emily’s comes down to the lack of information about these types of procedures in pregnancy and also while breastfeeding. Without the research available, we simply do not know about how they may, or may not, affect your pregnancy or your breastfed infant.

Ink

The pigments used in microblading are made up of different types of chemical compounds, like oxides, which can be pre-mixed and purchased by the cosmetic tattoo artist. They may also be mixed by the professionals themselves. A few unknowns are how much pigment, if any, is going into the skin, is entering the mom’s blood, crossing the placenta, and reaching the baby – which also means we do not know if the ingredients in the pigment could pose any risk. The same goes for breastfeeding moms – without good data, we do not know how much pigment, if any, is getting into the milk reaching the breastfed baby.

Possibility of infection

Another thing to consider about microblading in pregnancy and breastfeeding is the risk for infection. As previously mentioned, during the microblading process, a cosmetic tattoo artist deposits pigment into the outer layer of the skin by penetrating the skin with tiny needles. There is a possibility that the needles used may not be completely sterilized, which can lead to a higher risk of health issues such as staph infection, abscess, skin inflammation, or other infections like Hepatitis B and HIV. Medications like antibiotics may be needed to treat these conditions, sometimes requiring weeks or months of treatment. If left untreated, they can lead to health issues for mom and baby. Visiting a reputable business with good hygiene practices in place is a good idea should you choose to have microblading done during pregnancy or while breastfeeding.

Pain

Some women report that the microblading treatment can be painful. If that’s the case, the cosmetic tattoo artist may recommend the use of additional medications to control the pain (e.g. a topical lidocaine cream, or Tylenol). During pregnancy and breastfeeding, Tylenol (acetaminophen) is considered by most healthcare professionals to be the preferred pain reliever: https://mothertobaby.org/fact-sheets/acetaminophen-pregnancy/. With topical exposures, like lidocaine cream, a significant amount is generally not expected to enter the mom’s blood and result in an exposure to the pregnancy. Consider these additional exposures during pregnancy or while breastfeeding when deciding whether or not to book an appointment.

With all these unknowns in mind, it can be difficult to evaluate what possible risks a developing baby or breastfed infant might face. Ultimately it comes down to weighing the risks vs. the benefits, and this is exactly what I discussed with Emily on our chat. Having gone to a licensed cosmetic tattoo artist, Emily was reassured that her microblading procedure early in pregnancy was unlikely to be a concern. Moving forward, she decided that given the lack of research, she would prefer to wait until she was no longer pregnant or breastfeeding to resume further treatment. “My eyebrows might not look as great for the next year, but I won’t have to constantly worry about the ink reaching the

baby or the possibility of infection from having this done!" she shared as we wrapped up the chat.

If you have questions about microblading while pregnant or breastfeeding, don't hesitate to contact a MotherToBaby specialist via phone, text, chat, or email.

Angela Messer, MS, is a Teratogen Information Specialist with MotherToBaby California. She earned her undergraduate degree in psychology from Chapman University and her Master's degree from Kansas State University in academic advising/counseling. Angela has been with MotherToBaby since 2009 and holds a special interest in maternal medical conditions in pregnancy. In her free time, she enjoys spending time in her hometown of San Diego, CA with her husband and 9 month old daughter.

About MotherToBaby

***MotherToBaby** is a service of the Organization of Teratology Information Specialists (OTIS), suggested resources by many agencies including the Centers for Disease Control and Prevention (CDC). If you have questions about exposures during pregnancy and breastfeeding, please call MotherToBaby toll-FREE at 866-626-6847 or try out MotherToBaby's new **text information service** by texting questions to (855) 999-3525. You can also visit **MotherToBaby.org** to browse a library of fact sheets about dozens of viruses, medications, vaccines, alcohol, diseases, or other exposures during pregnancy and breastfeeding or connect with all of our resources by downloading the new MotherToBaby free app, available on **Android** and **iOS** markets. Also, make sure to subscribe to **The MotherToBaby Podcast** available on **iTunes**, **Google Play Music**, **Spotify** and podcatchers everywhere.*

Microblading in Pregnancy: What to Know before ‘Going under the Needle’

By Al Romeo, RN, PhD, MotherToBaby Utah

If you are pregnant or breastfeeding, you might wonder if it is safe for you to go to the nail salon. After all, there are chemicals in nail treatments, and (let’s face it) nail salons often smell like they could be toxic! But are they?

What’s in nail treatments? And could they be harmful if I’m pregnant or nursing?
Common nail products include nail polish and types of acrylic nails including gels, liquids, and powders. There are a few ingredients that are commonly found in those products, including:

- Dibutyl phthalate (DBP)
- Toluene
- Formaldehyde
- Camphor
- Paraffin
- Methacrylic
- Acetone
- Acetonitrile

The names of those ingredients may sound scary, but let’s look at each of them.

Dibutyl phthalate (DBP) is used in nail polish to make the polish more flexible and less likely to crack or break. Small amounts have been found in humans. Those small amounts are not expected to cause increased chances of problems for the pregnancy or breastfed baby based on the available research.

Toluene is a solvent that is used to thin nail polish so it goes smooth after being painted on with a brush. Solvents are known to be harmful to the nervous system. Sniffing or huffing spray paint, glue, and gasoline can cause dizziness and fainting in addition to damaging brain cells. But when it comes to nail treatments, the amount of toluene that is absorbed through the skin or inhaled from applying nail polish to finger and toe nails is small and not expected to increase the chance of problems for your pregnancy or breastfed baby.

Formaldehyde is used to harden nail polish. Nail salons might also use formaldehyde to disinfect nail care tools. Some people may be allergic to formaldehyde, even in the small amounts found in nail polish. Women with those allergies should use nail care products without formaldehyde and ask about its use in nail salons. Our bodies make formaldehyde and it can be found in healthy foods, such as apples. Just as too much water or oxygen can be dangerous for our bodies, too much formaldehyde can be a problem. However, the amount in nail polish is small and the amount that would be absorbed through the skin, nails, and from the fumes is also very small. That small amount is not expected to cause problems for your pregnancy or breastfed baby.

Camphor is also used to make nail polish soft or flexible and give it a pleasant odor. Camphor is found in some pain-relieving products that are applied to the skin. The amount of camphor in nail polish is far less than in those pain-relieving creams. Based on the limited information available, the use of camphor on the skin has not increased risks for a pregnancy or breastfed babies.

Paraffin is a mineral oil used in cosmetics and ointments to soften the skin. It isn’t part of the nail polish or remover, but your hands or feet might soak in it as part of the manicure or pedicure. As an oil, it mainly stays on the skin and

isn't absorbed into the bloodstream. The small amount of paraffin that is expected to get absorbed into the skin is not expected to increase the chance of problems for your pregnancy or breastfed baby.

Methacrylate is a chemical in acrylic nails. Not much of the methacrylate is left after it reacts with other chemicals to form the acrylic nails. However, the small amount that is left in the acrylic nails could cause irritation, redness, and swelling in the tissues under and below the nails. The small amount of methacrylate that is expected to be absorbed by the skin or lungs from using acrylic nails is not expected to cause an increased chance of problems for your pregnancy or breastfed baby.

Acetone is a solvent used in nail polish removers. Acetone, when ingested, can cause problems in the body. The small amount of acetone that is expected to be absorbed by the skin or lungs when it is used to remove nail polish is small and not expected to cause an increased chance of problems for your pregnancy or breastfed baby. After using nail polish remover, you might want to wash your hands or feet to reduce the amount that is left on the skin that could be absorbed.

Acetonitrile is another solvent used for removing artificial nails. It is less commonly used in cosmetics than acetone. The small amounts that are expected to be absorbed through the skin, nails, or lungs are not expected to increase the chances of problems for your pregnancy or breastfed baby.

But what about the smell?
The smell in nail salons is caused by the chemicals in the various treatments they offer. If there is good air flow and plenty of fresh air, then it is not likely that much of the chemicals will get into the body by breathing the fumes. But if you have headaches, dizziness, or nausea while around nail care products, take a break and get some fresh air outside.

So what's the take-away?
Go ahead, pamper yourself with pretty nails! Using these cosmetic products as part of routine nail treatments should not cause you any concern, as there are no known increased risks for your pregnancy or your breastfed baby.

If you have questions about exposures during pregnancy or breastfeeding, contact an expert at MotherToBaby. You can reach us by phone at 866-626-6847 or by text at 855-999-3525. You can also email or live chat with us by visiting https://MotherToBaby.org.

Alfred Romeo, RN, PhD, is a nurse and health educator. He has been with MotherToBaby for fifteen years, has served as the chair of various committees, and has served in many roles on the Board of the Organization of Teratology Information Specialists (OTIS)/ MotherToBaby. His experiences include working as a nurse in newborn intensive care units, training medical homes to improve services for children with special needs, and training young adults with disabilities in leadership and advocacy.

Microblading in Pregnancy: What to Know before 'Going under the Needle'

By Lynn Martinez and Julia Robertson, CPM

During the more than 40 years MotherToBaby affiliates have been serving the public with education regarding exposures during pregnancy, many women have called who are very distressed, sometimes in tears, about finding out they were pregnant while taking a drug categorized as an X or D in the Food and Drug Administration (FDA) system. "I've been on birth control pills and I still got pregnant! Does this mean my baby will have birth defects? It's a category X drug for goodness sake!" This kind of hysterical reaction was, unfortunately, a common call. It was not unusual to even hear that some of these women had contemplated terminations of otherwise wanted pregnancies. The FDA realized that these pregnancy categories were not as helpful as they intended and stopped using them in 2014, about ten years ago. Now they use the Pregnancy and Lactation Labeling Rule (PLLR) that has a narrative summary for medications, similar to what you will find here at MotherToBaby.

But first, a little background…

For decades the FDA had been aware of significant problems with the system used to categorize medications for use in pregnancy. In 1992, the Teratology Society (now known as the Society for Birth Defects Research and Prevention), a group of multidisciplinary scientists who study birth defects, expressed concerns and noted that the Category or 'CAT' system led to unnecessary terminations of wanted pregnancies1. The FDA Pregnancy Labeling Initiative recommended elimination of the CAT system, changing the label to include more descriptive risk statements and mandating that drug inserts be updated when human information is known.

Before the labeling rule changed, when a medication was approved for marketing in the U.S., it had to be labeled with one of five pregnancy CATs: A, B, C, D or X. A meant the drug was well-studied and posed no threat to a developing baby; B was a less-studied, but probably still low-risk drug; C was a drug that had not been studied and therefore the risk was unknown; a D-class drug, based on animal or human data, may have posed a risk; and the X classification meant the drug, based on animal or human data, causes birth defects or there was no benefit for its use during pregnancy. Its use was not recommended in pregnancy.

More than 90 percent of new medications were categorized as either CAT C, D or X, the vast majority being C. Drug manufacturers were legally required to update the category if harmful results were reported; however, no such requirement existed for updating the category when studies showed no problems in pregnancy. Most medications on the market in 2014 werelisted as CAT C, when in fact the majority of them should have been labeled as a CAT A or B. Manufacturers knew that no matter a woman's history, all pregnancies carried a 3 percent risk of having a child with a major birth defect. Because of this, many manufacturers may have felt better protected from lawsuits if their drugs were listed as CAT C, D, or X. So, really, why would they move up medications in those categories up to A or B? They really didn't have an incentive.

Moving forward and what it means to mom…

With the FDA rule change in 2014, a new set of requirements was put into place to better inform mom. It now requires the manufacturers to 'upgrade' a medication's labeling when studies show the risk has changed. Also, manufacturers will have to explore various ways of discussing in detail the risks associated with the drug. One expert source that manufacturers could consult is a teratogen information service, like MotherToBaby. More information will help you make more informed choices about your health and pregnancy!

There will still be confusion…

As we see the new labels being implemented, there will still be many drugs on the market with the CAT system since it'll take time to update all of them. MotherToBaby does not recommend the public or providers rely on the old CAT system for risk assessment. We welcome your questions about the system as well as questions about specific medications in pregnancy and breastfeeding for a complete, personalized risk assessment. Please call us toll-FREE at 866-626-6847.

Lynn Martinez is a retired Teratogen Information Specialist. Lynn has traveled around Utah educating doctors, nurse midwives, pharmacists and others over the past three decades.

Julia Robertson, CPM, now retired, works part-time overseeing quality control efforts for MotherToBaby. In her 25-year career as a teratogen information specialist, sheauthored several peer-reviewed publications focusing on maternal medication consumption and the effect on the developing fetus.

MotherToBaby is a service of the international Organization of Teratology Information Specialists (OTIS), a suggested resource by many agencies, including the Centers for Disease Control and Prevention (CDC). If you have questions about medications, alcohol, diseases, vaccines, or other exposures during pregnancy or breastfeeding, call MotherToBaby toll-FREE at 866-626-6847 or browse a library of **fact sheets**.

- Friedman, J. Teratology 1993:48:506
- For more information go to: **http://www.fda.gov/drugs/developmentapprovalprocess/developmentresources/labeling/ucm093307.htm**

Microblading in Pregnancy: What to Know before ‘Going under the Needle’

By Lynn Martinez, Teratogen Information Specialist, MotherToBaby Utah

“O.K., so I can’t look at pizza the same way. Saltine crackers seem to be my go-to snack for sustenance and don’t even SAY the word ‘curry!’ Oh no, I said it… Please excuse me while I hurl,” said Nicole, 34, who’s pregnant with her second child.

For many of the moms I counseled as a teratogen information specialist with the international non-profit, MotherToBaby, this is part of the reality of becoming a mom – nausea and vomiting of pregnancy (NVP). Yes, it’s a real diagnosis. “Please help me! Can I take something to help this nausea?” is usually the caller’s desperate question following her description of how she’d rather swim with sharks than accidentally catching a whiff of chicken tikka masala.

Nausea and vomiting of pregnancy (NVP) affects most pregnant women, whether it’s their first pregnancy or a subsequent one. For nearly a third it can be serious enough to disrupt their usual lives and routines. In the past, it has too often been discounted, but now more health care providers are willing to take it seriously and treat their patients. One of the drugs I get asked about more and more often recently is ondansetron, or Zofran, as it’s more commonly known.

Ondansetron is FDA-approved for use with nausea and vomiting in non-pregnant patients, but has been found to be effective for and used increasingly to treat NVP. Early studies demonstrated no increased fetal risk with its use. Two later studies found very small associations with oral clefting (cleft lip and or palate). Oral clefting defects are very common, so associations with exposures are more likely to be coincidental. These studies have not conclusively shown ondansetron to cause clefting or any other defect. More recent research continues to be reassuring. Therefore, it is unlikely the drug needs to be avoided during pregnancy

Other drugs to treat NVP have also been shown not to be a problem for the baby. The combination of doxylamine and vitamin B6 has been used for many years and is effective for many women. This combination is now available in the newly-marketed Diclegis. Ginger, whether in its raw form or in tablets, also works well for some expectant moms.

“So there are options?” exclaimed Nicole. “Thank goodness! Is it appropriate to ask my older child to work with daddy to get me some medication for nausea this Mother’s Day – instead of flowers?” she giggled.

For some women the nausea and vomiting subside greatly after the first trimester, but for those who need extra support with some treatment, encourage the moms-to-be in your life to consult their health care providers for options. And, whatever you do, do not, I REPEAT, do NOT show up with a potpourri basket for mom coupled with freshly-made Panang curry this Mother’s Day.

Lynn Martinez is a retired Teratogen Information Specialist. Lynn has traveled around the Utah educating doctors, nurse midwives, pharmacists and others over the past three decades.

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Rachel called us the morning she woke up and found a bat hanging out in her closet. As far as she could tell, she had not been bitten. She was 10 weeks pregnant and wondered what her next steps should be. Her husband also did not detect any bites. He kindly relocated the bat to the outside of their home, but now they were both exposed to potential rabies infection. She was about to leave for work, and her husband had already left for a busy day at the office.

Rachel had been down this road before in high school with a similar event in her childhood home. At that time, her whole family went to their local emergency department and were treated with a rabies vaccine series, or post exposure prophylaxis, to prevent them from becoming ill with rabies. At that time, she remembered being told that she would never need to go through the series again. She was calling us today because her OB provider referred her to MotherToBaby Connecticut for clarification.

In researching this comment about never needing to be treated again, I decided I needed some assistance from our local Poison Control. They confirmed that yes, she ***did*** need to be seen and re-treated in an emergency department of her choice. They also put me in contact with our State of CT Epidemiologist for further consultation. Our epidemiologist reiterated the need to be treated again because of this exposure. Rachel's pregnancy was ***not*** a reason to avoid treatment.

In such circumstances, the benefits outweigh the potential chances for adverse pregnancy outcome from the preventative vaccine series. Rachel's husband would need the vaccine, as well.

The Centers for Disease Control and Prevention (CDC) has a nice online review that I shared with Rachel that confirmed the need for her to receive treatment with the rabies vaccine. It also confirms the benefits of treatment in pregnancy outweighs the chances for any adverse pregnancy outcomes.

Rabies

- Because of the potential consequences of inadequately managed rabies exposure, **pregnancy is not considered a contraindication to postexposure prophylaxis**. Certain studies have indicated no increased incidence of abortion, premature births, or fetal abnormalities associated with rabies vaccination. **If the risk of**

exposure to rabies is substantial, pre-exposure prophylaxis also might be indicated during pregnancy. Rabies exposure or the diagnosis of rabies in the mother should not be regarded as reasons to terminate the pregnancy.

Treatment for rabies exposures include the actual rabies vaccine as well as the Human Rabies Immune Globulin (HRIG). The HRIG is a medication given at the time of exposure to provide the patient with immediate protection from the rabies virus. It is only ever given once. That means Rachel will not need HRIG again.

Instead, she will just need two injections of the rabies vaccine (there are up to five shots given after a first exposure). The vaccine helps your body build its own immunity to protect you against the rabies virus.

Because this was her husband's first exposure, he will need the full treatment including the HRIG and up to five injections of the rabies vaccine.

How urgently did Rachel and her husband need to be treated? The epidemiologist said sooner rather than later, recommending they visit an emergency department within the day of exposure.

Though Rachel was not excited about having to get vaccinated again, she was relieved to learn exactly what she needed to do for the health of her baby, her husband, and herself.

We were grateful for the collaboration with our local Poison Control, state epidemiologist and the CDC documents. The best possible reproductive data was provided for this couple to make the best reproductive decisions for themselves. With the help of MotherToBaby and our collaborators, this was one less ***bat***-tle they had to face alone.