

Working in a Nail Salon

This sheet is about some of the general exposures in nail salon work settings and goes over resources available to help create a work environment with low levels of exposure. This information should not take the place of medical care and advice from your healthcare provider.

What types of hazards might be at my workplace?

In general, workplace hazards that nail care workers might face include chemicals, dust, bacteria, viruses, and fungus. Muscle strain from working in awkward positions and doing the same motions over and over (repetitive motions) may also happen for salon workers.

What types of chemicals are usually found in the products used in nail salons?

Nail polish can contain pigments, polymers, plasticizers, and solvents. Polymers that might be in nail salon products can include nitrocellulose and tosylamide/formaldehyde resin (TSF Resin). Plasticizers in products may include dibutyl phthalate, triphenyl phosphate, and camphor. Commonly used solvents found in nail products include acetone, toluene, butyl acetate, and ethyl acetate.

Products used with artificial nails include those used to prepare or prime the nail bed (methacrylic acid), adhesives (cyanoacrylate or methacrylate products) and a solvent for removing the artificial nail (often acetonitrile).

Disinfecting chemicals are used to clean tools and soaking tubs.

Formaldehyde gas can be released into the air when using some nail salon products.

How can I learn about the chemicals in the products that I work with in my salon?

The chemicals listed above may not apply to all nail salon workers. To learn about the exact chemicals that are used at your work site, ask your employer for the Safety Data Sheets (SDS) for each product that you use. For help on understanding where to find ingredients on an SDS, the Occupational Safety and Health Administration has an example here: <https://www.osha.gov/sites/default/files/publications/OSHA3514.pdf>

The SDS also describes how to safely use the product and will have recommendations for protective gear like gloves or masks. The SDS will also tell you how to store and dispose of the products you work with. The work site is required to have copies of all the SDS. Most SDS are also available online with a web search.

Can working around these chemicals and hazards harm my pregnancy?

Because all salons are different, the amount of contact with chemicals and hazards can be different among workers. Your level of exposure will depend on the type of services your salon offers, how many hours you work, the kind of ventilation or air system in your workplace, and what kind of precautions you take to reduce your exposure. Just because you work around a possible hazard, it does not mean that you will be exposed to a level that would cause a problem.

Many of the chemicals mentioned above are not well studied in pregnancy. Animal studies have shown that, for some of these chemicals, there might be problems for a pregnancy if the woman who is pregnant is exposed to extremely high levels that cause them to become ill.

The salon where I work has a strong smell. Does that mean I have high levels of exposure?

Nail salons often have a chemical smell. Most chemicals can be smelled long before they would cause a problem for the worker. For this reason, chemical odor cannot be used to tell if you have had an exposure that may be of concern.

Some small studies on air quality in nail salons have found that most chemical concentrations (levels) were below the recommended occupational exposure limits. Occupational exposure limits are created to help keep working adults healthy.

However, many of these air monitoring studies have noticed that formaldehyde levels were higher than recommended for a worker's respiratory (breathing) health. Methyl methacrylate, toluene, benzene, and other chemicals have also

been measured in the air of nail salons. Because exposure to high levels of these can be unhealthy for workers, some states are working on stricter guidelines for keeping salon workers healthy.

Do I only need to be concerned about fumes from the products I work with?

There are different ways that people can be exposed to chemicals. You can breathe in (inhale) fumes or vapors of chemicals. Dust created when filing and shaping nails, or when applying acrylic powders, can be inhaled or swallowed. These dusts could contain bacteria or fungus, depending on the health of your client. Dusts and chemicals can end up on your skin when applying products. If you eat or drink while using these materials, you could also accidentally get them in your mouth. Proper and frequent hand washing is important to help lower your chances of this type of exposure.

Does working in a nail salon increase the chance for miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. It is not known if working in a nail salon increases the chance for miscarriage. Studies looking at pregnancies of nail salon workers have not noticed a higher chance of miscarriage. Some studies on exposure to formaldehyde and chemicals in the organic solvent family have suggested a higher chance of miscarriage for workers with high levels of exposure. Using proper protection and working in a ventilated space will help to reduce exposures.

Will working in a nail salon increase the chance of birth defects?

Of all the babies born in the US every year, about 1 out of 33 (3%) will have a birth defect. This is called the background chance. It is not known if working in a nail salon can increase the chance for birth defects above the background chance.

Information from animal studies about many chemicals found in nail salons does not suggest exposure will increase the chance for a birth defect. These studies typically do not look at exposure to more than one chemical at a time.

A small number of studies looking at the pregnancies of nail salon workers have not found an increased chance for birth defects. In addition, studies on formaldehyde have not reported an increased chance for birth defects. However, other studies on some of the chemicals that are used in nail salons have suggested a greater chance for birth defects among women who have high levels of exposure. Using proper protection and working in a ventilated space will help to reduce exposure levels.

One small study suggested that women who gave birth to infants with a heart defect were more likely to have worked as a nail technician during early pregnancy than women who gave birth to infants with no reported birth defects.

Studies among women who were pregnant and misusing toluene (sniffing the fumes to get “high”) found effects similar to women who misused alcohol in their pregnancy.

Can working in a nail salon increase the chance of other pregnancy-related problems?

Most studies on cosmetologists have not reported a greater chance for other pregnancy-related problems. Some studies have reported that workers in salons might be more likely to experience premature rupture of membranes (when the fluid around the baby in the womb leaks out). Some studies have also found a higher chance to develop high blood pressure. Two studies have suggested a possible association with working in a nail salon or as a cosmetologist and having a baby that is smaller than expected. Overall, it appears that when proper work safety practices are followed, the chance of pregnancy complications would be unlikely to be significantly higher than for women in the general population.

Some products that cosmetologists work with might cause allergy symptoms, such as asthma, or skin reactions. Other hazards in a nail salon, such as bacteria, viruses, fungus, and dusts might also cause problems for a worker’s health. However, these are less likely to affect the developing baby unless you become very sick.

Breastfeeding while working in a nail salon:

The amount of an exposure that can get into breastmilk; and if that exposure could affect a child that is breastfeeding depends on many things, such as: the chemical or product, how high the exposure is, and how often the exposure happens. If you have specific concerns about your work site, discuss them with your healthcare provider or contact MotherToBaby. Be sure to talk to your healthcare provider about all of your breastfeeding questions.

Is there anything I can do to lower my exposures as a nail technician?

Following safe work practices and taking precautions to keep exposures as low as possible will be good for you and your pregnancy. These precautions will help all workers, even if they are not pregnant or planning a pregnancy.

- Wash your hands before and after working on clients, before eating, drinking, or applying cosmetics, and after handling or transferring products. The Centers for Disease Control and Prevention (CDC) has hand-washing instructions available here: <https://www.cdc.gov/handwashing/when-how-handwashing.html>.
- Wear nitrile gloves if working with any nail products containing chemicals. Latex and vinyl gloves may not provide a barrier for some chemicals. Check the product's Safety Data Sheet for specific glove recommendations for each product that you work with. Also remember that gloves never offer a perfect barrier, so wash your hands every time you take off your gloves.
- Cover and protect cuts or cracks in your skin. Damaged skin can increase the chance for exposures.
- Wear goggles and the appropriate type of disposable gloves when handling and transferring products.
- Wear a dust mask, such as an N95 mask, designed to filter tiny particles. A regular surgical-style mask will not protect you from inhaling very fine dusts. Dust masks do not filter chemicals from the air.
- Do not eat or drink in your work area.
- If a person is bleeding, do not touch their blood. Ask the person to use a cotton ball or tissue to stop the bleeding and then have them throw it into the trash. Then, have them put a bandage over the cut.
- Use trash cans that have lids and keep the lids on the trash cans at all times.
- Keep all bottles and containers tightly closed with their proper lids and caps when not in use.
- Clean and disinfect tools and foot basins after each client, as required by your state's cosmetology board.
- Talk with your manager or work safety officer to learn what ventilation (air filtering and air moving) systems are in place at your work site, and that they are working correctly.
- Get fresh air into your salon. This can be done by having doors and windows open and using any ceiling vents or exhaust systems. If there is no exhaust system then keep the fan, heating, ventilation, and air conditioning (HVAC) system on during work hours (not on auto, which allows the fan to shut off).
- If your salon has manicure tables with built-in ventilation to draw fumes away from you, make sure they are always turned. Follow the maintenance schedule for your particular ventilation tables, such as changing the charcoal filters and cleaning out the catch basin.
- When possible, use products with the least amount of chemicals.
- Do not use products that can release formaldehyde into the air.
- Read product labels and their Safety Data Sheets. Follow the manufacturers' instructions on how to use, how to store, how to clean up spills, and how to dispose of the products.
- Discuss your immunizations (shots that can help to protect you from getting some diseases) with your healthcare provider. Some might be helpful, such as seasonal flu, hepatitis B, and COVID-19 vaccines.
- Your employer should provide the correct personal protection (e.g. gloves, masks, goggles, aprons) for all parts of your job. Be certain to use them, even when not pregnant.
- Take a short break every hour or so to change body positions. For example, if you are sitting get up and move around for a few minutes. Or if you are standing, sit for a few minutes.

If a man works in a nail salon, can it make it harder to get a woman pregnant or increase the chance of birth defects?

Studies have not been done to see if working in a nail salon could affect a man's fertility (ability to get a woman pregnant) or increase the chance of birth defects above the background chance. In general, exposures that men have are unlikely to increase the risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at <https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/>.

How can I get more information?

If you have specific concerns about your work site, discuss them with your healthcare provider or contact MotherToBaby. If you have health symptoms while at work (such as headaches) talk to your healthcare provider. For more tips on making your salon as safe as possible, you or your employer can contact a local industrial hygienist at <https://www.aiha.org/consultants-directory>. Small businesses can also contact OSHA's on-site consultation services to help determine whether there are hazards at the worksite: 1-800-321-OSHA (6742) and press number 4.

Some online resources:

- MotherToBaby has a general fact sheet on occupational exposures and ways to reduce workplace exposures: <http://mothertobaby.org/fact-sheets/reproductive-hazards-workplace/>.
- Health Hazards in Nail Salons – a booklet from the Occupational Safety and Health Administration (OSHA) about how to stay safe while working in a nail salon. Available in English, Spanish, Vietnamese, Korean, and Nepali: <https://www.osha.gov/nail-salons>.
- Nail Technicians' Health and Workplace Exposure Control – National Institute for Occupational Safety and Health (NIOSH): <https://www.cdc.gov/niosh/topics/manicure/>
- Protecting the Health of Nail Salon Workers – United States Environmental Protection Agency (US EPA): <https://www.epa.gov/sites/production/files/2015-05/documents/nailsalonguide.pdf>
- The Effects of Workplace Hazards on Female Reproductive Health – NIOSH: <http://www.cdc.gov/niosh/docs/99-104/>
- Occupational Safety and Health Administration (OSHA): <https://www.osha.gov/reproductive-hazards>

Please click here for references.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.mothertobaby.org).

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