Working in a Nail Salon

This sheet talks about some of the general exposures present in nail salon work settings and outlines some resources available to help create a safe work environment. 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 using repetitive motions is also a workplace hazard for salon workers.

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

To learn about the specific chemicals that you work with ask your employer for the Safety Data Sheets (SDS) for each product that you use. These sheets will list the chemicals in the products. The sheets also describe how to safely use the product and will outline 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. Most SDS are also available online with a web search.

Products used in nail salons are made of different chemicals. Nail polish can contain pigments, polymers, plasticizers, and solvents. Pigments provide the color. Polymers create the shininess and allow the polish to stick. Plasticizers are chemicals that increase flexibility and durability of the polish. Solvents make the polish spreadable. Solvents are also used in removing polish and breaking down glues (adhesives) and pigments.

Polymers you may be exposed to on the job 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 for adhesion (methacrylic acid), adhesives (cyanacrylate or methacrylate products) and a solvent for removing the artificial nail (often acetonitrile). Formaldehyde gas can be released into the air when using some nail salon products. Along with nail products, disinfecting chemicals are also used to clean tools and soaking tubs. Again, this list may not apply to all salon workers, so be sure to read the labels and SDSs of the products used in your work area.

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

No. 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 determine if you have had an exposure that may be of concern.

Some small air quality studies in nail salons have found that most chemical concentrations (levels) found in the air were below the recommended occupational exposure limits. Occupational exposure limits are established to keep working adults healthy and this is reassuring. However, many of these air monitoring studies have noticed formaldehyde levels higher than recommended for a worker’s respiratory (breathing) health. Methyl methacrylate, toluene, benzene, and other chemicals has also been measured in the air of nail salons. Because it is known that high levels of exposures in nail salons can be unhealthy for non-pregnant workers, some states are working on stricter guidelines for keeping salon workers healthy. Now may be a good time to discuss the ventilation (air filtering and air moving) systems in place at your work site to continue to improve the health of the workers present.

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

There are different ways that you can be exposed to chemicals. You can breathe in fumes or vapors of chemicals you or your co-workers use. Dusts created when filing and shaping, or when applying acrylic powders, can be inhaled (breathed in) or swallowed. These dusts may contain bacteria or fungus, depending on the health of your client. Dusts can end up on your skin, and so can chemicals when applying products. If you eat or drink while using these materials, you could also accidentally get them in your mouth. Properly washing hands is always a good idea to help lower your chances of exposure.

Can working around these chemicals and hazards harm my pregnancy?

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Many of these chemicals are not well studied in pregnancy. Animal studies tell us that, for some of these chemicals, there might be problems for a pregnancy if the mother is exposed to extremely high levels that cause her to become ill. 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, the amount of 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.

**Will working in a nail salon increase the chance for miscarriage?**

If you are actually exposed to high levels of chemicals, there might be a slightly higher chance. Some studies on organic solvents and formaldehyde have suggested a higher chance of miscarriage for workers with high levels of exposure. However, studies looking particularly at pregnancies of nail salon workers have not noticed a higher chance of miscarriage. Using proper protection and working in a ventilated space will help to keep exposures low.

**Will working in a nail salon increase the chance of having a baby with a birth defect?**

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. It is unlikely that working in a nail salon would increase this chance. The small number of studies that looked at the pregnancies of nail salon workers has not found an increased chance for birth defects. Information from animal studies about many chemicals found in nail salons does not suggest exposure will increase the chance for a birth defect. Some studies on some chemicals that are used in nail salons have suggested a greater chance for birth defects with high levels of exposure. Studies among women who abuse toluene (sniffing the fumes to get “high”) found effects similar to someone who abused alcohol in their pregnancy. Studies on formaldehyde have not reported an increased chance for birth defects.

**Can working in a nail salon cause other complications for me or my baby?**

Most studies on cosmetologists have not reported a greater chance for pregnancy complications. 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 if you and your work site follow proper working practices and precautions then pregnancy complications would be unlikely to be higher than for women in the general population.

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

**If a man works in a nail salon could it affect his fertility (ability to get his partner pregnant) or increase the chance of birth defects?**

This has not been studied. 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/pdf/.

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

Yes. Following safe work practices and always 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.
- 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 SDS for specific glove recommendations for each product that you work with. Also remember that gloves never offer a perfect barrier, so wash 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 and 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.
• Get fresh air into your salon (ventilation). This can be done by: having doors and windows open; using any ceiling vents or exhaust systems (always have them on). 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 and limit air movement).
• If your salon has manicure tables with built-in ventilation to draw fumes away from you, make sure they are always turned on. Change the charcoal filters at least once a month; clean out the catch basin at least once a week. Or, follow the specific maintenance schedule for your particular ventilation tables.
• When possible use products with the least amount of chemicals. Replace products that can release formaldehyde into the air.
• Read product labels and follow the manufacturers’ instructions on how to use, to store, to clean up spills, and to dispose of the products.
• Discuss your immunizations (shots that can help to protect you from getting some diseases) with your healthcare provider. There are some that might be helpful, such as hepatitis B immunization.
• Your employer should provide the correct personal protections 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.

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 experience 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: https://mothertobaby.org/fact-sheets/reproductive-hazards-workplace/pdf/.
• 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/SLTC/nailsalons/
• Nail Technicians’ Health and Workplace Exposure Control – National Institute for Occupational Safety and Health (NIOSH): https://www.cdc.gov/niosh/topics/manicure/
• 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/SLTC/reproductivehazards/index.html