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Workers



It might be legal, but it's not fair that salon workers, whose primary job is to help their clients feel and look more beautiful, are exposed to a broad array of very ugly – and toxic – chemicals in the nail products, hair products and beauty products they work with each

and every day. And, they often do not have access to full information about the toxicity of these products.

The same hazardous chemicals used to formulate personal care products for consumers are used and sold in nail and beauty salons. However, salon workers' cumulative exposures are much higher because they spend so many hours a day near these unsafe ingredients, often without sufficient ventilation. Salon workers may have even less information about these occupational exposures because, by law, the ingredients in professional salon products do not have to appear on the product label.

The good news is that there are steps workers can take to protect themselves against these toxic chemicals, because, at the end of the day, no one should have to risk their health to do their job.

Cosmetologists and Hairdressers

The International Agency for Research on Cancer lists "occupational exposures as a hairdresser or barber" as a probable carcinogen.^[1] Several studies have found elevated rates of breast cancer among hairdressers and cosmetologists.^{[2],[3],[4],[5]} Breast cancer rates are elevated in both black and white cosmetologists.^[6] Premenopausal breast cancer has different characteristics than post-menopausal breast cancer, and both are elevated in this population of workers.^[7]

Cosmetologists who offer keratin hair treatments containing formaldehyde may be exposed to formaldehyde levels that are 20-fold higher than the National Institute of Occupational Safety and Health limits of .1 ppm.^[8] They are also likely to be exposed to carcinogenic contaminants, such as 1,4-dioxane and nitrosamines, that are common in shampoos and other products, and even more formaldehyde from formaldehyde releasing preservatives which are frequently used as preservatives in shampoos. Hair dyes are likely to lead to exposures to p-phenylenediamine (PPD), a serious skin sensitizer that can lead to organ system toxicity if ingested, and resorcinol, also linked to skin sensitization, organ system toxicity and disruption of thyroid hormones.

Nail Salon Workers

Nail salon workers also face considerable exposure at work. Many nail salon workers are recent immigrants to the U.S. and face language and cultural barriers when interacting with product information and government agencies. For instance, in California, 60-80% of nail salon workers are originally from Vietnam. Almost half are of childbearing age. Only 7% report being very fluent in English.^[9] The state's licensing agency, the Board of Barbering and Cosmetology, is not sufficiently staffed with representatives who speak Vietnamese, which often results in miscommunication.^[10]

Many chemical exposures are irritants, allergens or asthmagens (chemicals that cause asthma), and some of these can also lead to headaches and central nervous system effects. In addition, some chemicals nail salon workers are exposed to such as toluene, xylene, and N-methyl pyrrolidone are linked to reproductive effects and others such as titanium dioxide (in inhalable form) and formaldehyde are carcinogens.^[11] More than $\frac{3}{4}$ of Vietnamese nail salon workers who participated in a community-based occupational health survey^[12] reported concerns about the health effects of their work exposures, and almost one-third of them reported respiratory irritation. More than half of them reported chemicals in the air, and almost everyone described dust in the air. While most nail salon workers reported wearing masks, often to prevent exposures to chemicals or reduce odors, the masks they wore were medical or surgical masks, designed to control infection, not to reduce the inhalation of chemical vapors.

Manufacturing

No one should have to face a cancer diagnosis because of their job, but studies suggest links between workplace solvent exposures and breast cancer,^[13] ^[14] ^[15] and other studies suggest elevated breast cancer rates among women working in chemicals manufacturing.^[16] ^[17] These studies are not specific to personal care products. However, many solvents (toluene, isopropyl alcohol, and methylene chloride) are used in personal care products, and many other industrial chemicals linked to adverse health effects are derived from and refined for use in personal care products. In a 2014 policy statement, the American Public Health Association (APHA) called on the U.S. Surgeon General to take steps to protect women workers who are exposed to toxic chemicals linked to breast cancer on the job.

Products of Concern

Cosmetologists (beauticians, hairdressers, make-up artists)

- Formaldehyde (keratin hair straightening treatments and products that use formaldehyde releasing compounds as preservatives)
- P-phenylenediamine (PPD) and resorcinol (hair dyes)
- Ethanolamine compounds (common in shampoos and conditioners)
- 1,4-dioxane (a common contaminant of many products)
- Diethyl phthalate (in fragranced shampoos and conditioners)

Nail Salon Workers

- Formaldehyde (nail polish, bases and top coats)
- Toluene (nail polish, bases and top coats, and thinners)
- Dibutyl phthalate (nail polish, bases and top coats)
- Ethyl methacrylate (acrylic nails)

- Methyl methacrylate (acrylic nails)
- Isopropyl acetone (nail polish remover)
- N-methyl pyrrolidone (artificial nail removers)
- Titanium dioxide (nail polish; a concern if nail polish is filed, creating inhalable particles)
- Methyl ethyl ketone (MEK) (polish removers and thinners)

Chemicals of Concern

Acrylates (<https://www.safecosmetics.org/chemicals/acrylates/>)

Carbon Black (<https://www.safecosmetics.org/chemicals/carbon-black/>)

Coal Tar (<https://www.safecosmetics.org/chemicals/coal-tar/>)

Formaldehyde And Formaldehyde-Releasing Preservatives
(<https://www.safecosmetics.org/chemicals/formaldehyde/>)

Homosalate (<https://www.safecosmetics.org/chemicals/homosalate/>)

Methylisothiazolinone and Methylchlorisothiazolinone
(<https://www.safecosmetics.org/chemicals/methylisothiazolinone/>)

Mica (<https://www.safecosmetics.org/chemicals/mica/>)

Nail Polish Removers (<https://www.safecosmetics.org/chemicals/nail-polish-removers/>)

Nanomaterials (<https://www.safecosmetics.org/chemicals/nanomaterials/>)

P-Phenylenediamine (<https://www.safecosmetics.org/chemicals/p-phenylenediamine/>)

PABA (<https://www.safecosmetics.org/chemicals/paba/>)

Petrolatum, Petroleum Jelly
(<https://www.safecosmetics.org/chemicals/petrolatum/>)

Phthalates (<https://www.safecosmetics.org/chemicals/phthalates/>)

Polyacrylamide (<https://www.safecosmetics.org/chemicals/polyacrylamide/>)

Preservatives (<https://www.safecosmetics.org/chemicals/preservatives/>)

Quaternium-15 (<https://www.safecosmetics.org/chemicals/quaternium-15/>)

Resorcinol (<https://www.safecosmetics.org/chemicals/resorcinol/>)

Retinol and Retinol Compounds
(<https://www.safecosmetics.org/chemicals/retinol-and-retinol-compounds/>)

Styrene Acrylates Copolymer**(<https://www.safecosmetics.org/chemicals/styrene-acrylates-copolymer/>)****Talc (<https://www.safecosmetics.org/chemicals/talc/>)****Titanium Dioxide (<https://www.safecosmetics.org/chemicals/titanium-dioxide/>)****Toluene (<https://www.safecosmetics.org/chemicals/toluene/>)**

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Quick Tips

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1. If you own your own salon, go green and use that as a selling point. Eliminate workers' exposure to chemicals on the Campaign's Red List (</red-list/>), and stock up on safer products to sell to consumers by using a tool like Clearya (<https://www.clearya.com/>) that alerts you about toxic ingredients in products as you shop.
2. Wear gloves for processes that expose you to toxic chemicals.
3. Wearing a face mask can help reduce your inhalation of toxic chemicals. If you wear a face mask, make sure it is the most protective kind (<https://www.osha.gov/harwoodgrants/grantmaterials/fy2016/sh-28648-sh6>).
4. Make sure your salon has plenty of ventilation and fresh air.
5. Choose PPD-free hair dyes (new options are increasingly becoming available) and become an expert in creating great results with these new products.

Additional resources

- Check out the California Healthy Nail Salon Collaborative (<https://cahealthynailsalons.org/>) for more information or to get involved in making salons healthier places to work.
- Find California salons that prioritize worker health (<http://www.cahealthynailsalons.org/what-is-hns/find-a-healthy-nail-salon-near-you/>) and safety

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