



CHEMICAL CRISIS:

**REPRODUCTIVE HARMS
AMONG NAIL SALON
WORKERS IN NYC**

NEW YORK HEALTHY NAIL SALONS COALITION
APRIL 2024

INTRODUCTION

"I HAD PREECLAMPSIA DURING MY BIRTH AND A CONDITION POSTPARTUM WHERE MY UTERUS BLEEDS EXCESSIVELY. I HAD CYSTS AND I STILL SUFFER FROM SEVERE MENSTRUAL PAIN. I'M SCARED TO HAVE MORE BABIES BECAUSE OF THIS. I DIDN'T KNOW THAT WORKING IN A NAIL SALON PLAYED A PART IN MY REPRODUCTIVE HEALTH. IN THOSE TIMES, IT WAS NOT NORMAL TO USE PPE. I REMEMBER ANOTHER CO-WORKER HAD A MISCARRIAGE AND STOPPED WORKING. SHE LEFT AND I NEVER SAW HER AGAIN."

-JANETH ULLOA, NAIL SALON WORKER

The nail salon industry is booming across the U.S., with consumers spending over \$8 billion annually for nail services. Mirroring this growth in demand, there are now almost 400,000 nail salon workers in the country, with New York having the highest concentration of nail techs in the nation. Approximately 85% of the industry's workforce identify as women.[1] The industry continues to grow across the state, with the New York City metro area, Rochester, Buffalo, Albany, and Poughkeepsie with the largest numbers of nail salon establishments.[2]

But against this backdrop of strong industry growth and consumer demand, an overwhelming number of workers face unacceptable and illegal working conditions. Workers earn low wages, with many experiencing minimum wage and overtime



violations, misclassification as independent contractors, disregard for breaks, lack of benefits and paid time off, harassment, and dangerous working conditions.

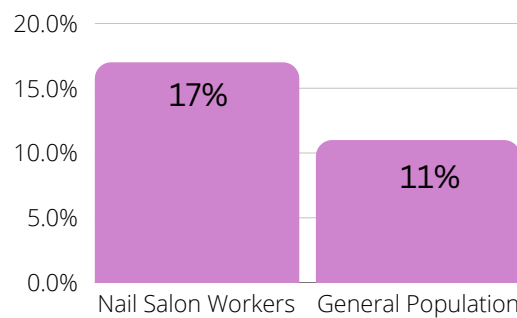
Chemicals used in the nail salon industry are abundant, toxic, and associated with serious health risks, including damage to reproductive health. After organizing and advocacy by nail salon workers, New York's government intervened in the industry almost a decade ago with the Nail Salon Worker Bill of Rights, ventilation requirements for businesses, and updated regulations for certified Appearance Enhancement Schools. However, while many of these protections exist on paper, they are not a reality in many nail salons.

SUMMARY OF FINDINGS

Between June 2022 and March 2024, the New York Healthy Nail Salons Coalition surveyed 312 women nail techs in New York about their reproductive health. The results show a higher prevalence of reproductive health issues as compared to the general U.S. population:

Reproductive Health Issues

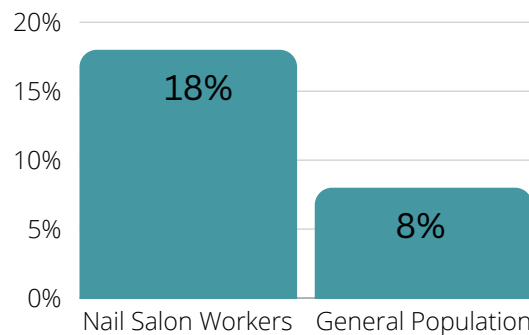
17% of workers said they have had issues with their reproductive health. In comparison, about 11% of women of reproductive age in the United States have experienced fertility problems[3] and 11% of American women between 15 and 44 have endometriosis.[4]



Any Reproductive Health Issues, n=312

Pregnancy Complications

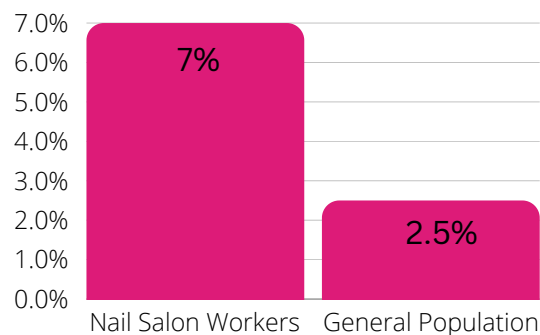
Nearly 1 in 5 (18%) workers said they had complications during their pregnancy. In the US, approximately 8% of all pregnancies involve complications that, if left untreated, may harm the mother or the fetus.[5]



Complications During Pregnancy, n=312

Babies Born with Birth Defects

7% of workers said their child was born with abnormalities. In the US, between 2% and 3% of infants have one or more defects at birth. [6]



Babies born with birth defects, n=312

"MY CHILD HAS DEVELOPMENTAL ISSUES—HE HAS SPEECH PROBLEMS AND WAS DIAGNOSED WITH AUTISM. HE IS ACTUALLY 1.5 YEARS DELAYED. I DID A GENETIC STUDY TO SEE IF IT CAME FROM OUR BLOOD LINES AND THEY TOLD ME THAT IT WAS AN "ENVIRONMENTAL ISSUE" AND THAT I DID SOMETHING WRONG WHILE I WAS PREGNANT. THEY SAID IT WAS THE ENVIRONMENT I WAS IN WHILE PREGNANT OR BEFORE PREGNANCY. I WORKED THREE MONTHS AT THE NAIL SALON WHILE PREGNANT AND I HAD BEEN WORKING IN A SALON FOR THREE YEARS BEFORE I CONCEIVED. IT WAS MY ONLY JOB, AND IT WAS THE ONLY PLACE WHERE I WAS EXPOSED TO CHEMICALS.

I STOPPED WORKING UNTIL MY CHILD WAS TWO YEARS OLD BECAUSE THERE WERE A LOT OF THERAPY APPOINTMENTS FOR HIM. I CONSTANTLY HAD TO BRING HIM TO THERAPY AND THAT REALLY HIT ME. HE WAS BORN WITH HIS NECK STUCK TO ONE SIDE- IT TOOK A WHILE AT THERAPY FOR HIM TO BE ABLE TO MOVE IT MORE. THEN THEY TOLD ME HE WAS NOT INTERACTING OR SPEAKING AFTER THE PHYSICAL THERAPY; HE NEEDED SPEECH THERAPY FOR 1 YEAR."

-JANETH ULLOA, NAIL SALON WORKER

REPRODUCTIVE HEALTH IMPACTS FROM EXPOSURE TO TOXINS

Nail technicians experience many challenges on the job, including widespread wage theft, unpredictable schedules and lack of benefits, but health risks remain one of the biggest concerns voiced among the workforce. On a daily basis, workers are exposed to glues, polishes, removers, and other hazardous products; they are also at risk of infection from contact with clients' infected skin, nails, or blood. Nail polishes and other salon products commonly contain what is nicknamed the "toxic trio" of formaldehyde, dibutyl phthalate and toluene, and exposure to these chemicals can lead to adverse health effects.[7] Formaldehyde has been labeled a carcinogen by the U.S. Department of Health and Human Services, is an irritant, and can cause respiratory problems;[8] exposure to toluene has been associated with liver damage, kidney damage, birth defects and pregnancy loss. [9] Exposure of pregnant women to phthalates, even at low levels, can cause preterm births—which is important to note, as nail salon workers, customers, and owners alike are predominantly women.[10]

The "toxic trio" in nail salons is just the tip of the iceberg; workers are faced with dozens of other toxins that are dangerous to both workers and consumers alike and can cause headaches, asthma, dizziness, nausea, vomiting, and more.[11]

A 2016 New York State Department of Health review of the chemicals used in nail salons noted that about 30 chemicals or chemical categories are regularly used in salons in addition to the toxic trio.[12] As the Occupational Safety and Health Administration notes, these exposures "add up" to cause health harm.[13]

Results of the 2024 survey of 312 nail technicians confirmed what other studies have also shown: nail technicians have a higher prevalence of reproductive health issues, complications during pregnancy, and birth defects among children. Key findings include:

- 17% of workers said they have had issues with their reproductive health. In comparison, about 11% of women of reproductive age in the United States have experienced fertility problems and 11% of American women between 15 and 44 have endometriosis.[14, 15]
- Nearly 1 in 5 (18%) workers said they had complications during their pregnancy. In the US, approximately 8% of all pregnancies involve complications that, if left untreated, may harm the mother or the fetus.[16]
- 7% of workers, or 23 women, said their child was born with abnormalities. In the US, between 2% and 3% of infants

have one or more defects at birth; one out of every 33 babies born in the United States are affected by birth defects.[17, 18]

The survey results also highlighted many well-known risk factors for poor reproductive health:

- Only 46% of workers reported that there is a ventilation system in place at their salon, despite regulations enacted in 2015.
- 40% of workers reported working with acrylic nails, which exposes workers to chemicals that may cause harm to a developing fetus, in addition to skin and respiratory issues.
- 40% of workers said they had strong chemical odors in their salon, and another 35% said there were strong odors at first but they got used to it.

Chemical exposure in nail salons has consistently been linked to reproductive damage for nail technicians and harm to their children. In one study out of the University of Toronto, nail techs were found to be exposed to concerning levels of flame retardants and plasticizers including organophosphate esters,[19] which can be fatal at high levels of exposure, and also “pose a risk to children’s neurodevelopment and normal neurological function”.[20] The study also noted that these chemicals were linked to low birth weight infants, decreased memory in children, and failed in vitro fertilization.[21]

One National Institute for Occupational Safety and Health study from June 2021 found that working as a nail technician

during pregnancy was associated with having children with congenital heart defects and neural tube defects.[22]

A 2016 meta-analysis done by the National Institute of Health suggests that maternal exposure to VOCs (volatile organic compounds such as toluene and formaldehyde) during pregnancy may be linked to having a child with autism.[23] In a 2019 study conducted by the National Institute for Occupational Safety and Health, women who were exposed to solvents on the job were found to be 50% more likely to have children with autism than women who were not, further suggesting an increased risk of autism for children of nail technician mothers who were exposed to chemicals.[24]

"LONG BEFORE THE PANDEMIC, EMPLOYERS WERE NOT PROVIDING US WITH THE PERSONAL PROTECTIVE EQUIPMENT MANDATED BY THE STATE DEPARTMENT, SUCH AS MASKS, GLOVES, AND GOGGLES. AND IN THE SALON WE USE MANY CHEMICALS WITHOUT PRIOR TRAINING.

ONE DAY IN FEBRUARY 2017, I WAS LEAVING WORK AND I STARTED TO FEEL VERY DEBILITATING PAIN IN MY ABDOMEN. THANK GOD I WAS WITH MY DAUGHTER BECAUSE I COULDN'T SIT OR LIE DOWN, I FELT VERY COLD AND FELT VERY WEAK, AND I HAD TO GO TO THE EMERGENCY ROOM. AT THE HOSPITAL THEY STABILIZED MY PAIN, BUT THE DOCTOR RECOMMENDED THAT I HAVE SURGERY IMMEDIATELY, URGENTLY, TO REMOVE A LARGE CYST THAT COULD TURN INTO A CANCEROUS TUMOR.

THAT SITUATION HAPPENED DUE TO LACK OF PROTECTION FROM CHEMICAL DANGERS AT WORK. I WAS ALSO NOT GIVEN TIME TO EAT OR REST, AND THE WORK WAS EXCESSIVE - I WORKED 6 OR 7 DAYS A WEEK FROM 9:30 A.M. TO 10:30 P.M."

-ANGELINA PALAFOX, NAIL SALON WORKER

I WORKED LONG HOURS AND HAD NO LUNCH BREAKS DURING MY PREGNANCY. THERE WAS NO VENTILATION SYSTEM IN MY NAIL SALON. IT WAS A VERY BITTER PREGNANCY EXPERIENCE SINCE I SPENT MANY HOURS IN A SMALL ROOM WITHOUT TAKING ANY BREATHS OF FRESH AIR. I USED TO FEEL LIKE I WAS SWALLOWING SO MANY HARMFUL CHEMICALS, FEELING SO SUFFOCATED LIKE THAT.

MY DOCTOR USED TO SAY THAT THE ENVIRONMENT AFFECTS A CHILD'S HEALTH, BUT SHE NEVER SPECIFIED WHAT KIND OF ENVIRONMENT. NOW THAT I KNOW ABOUT THE HARMS OF THE INDUSTRY, I AM CONNECTING MY LONG HOURS, HAVING NO BREAKS, AND EXPOSURE TO CHEMICALS AS REASONS BEHIND MY MISCARRIAGE.

I HAVE A 4 YEAR OLD SON NOW AND HIS DEVELOPMENT IS DELAYED. HE WAS DIAGNOSED WITH AUTISM. THERE MAY BE MANY CAUSES BUT ALL I CAN THINK OF IS MY DANGEROUS JOB. BUT I KNOW THIS IS NOT ONLY MY ISSUE. MANY WOMEN IN MY COMMUNITY WHO WORK IN THE NAIL INDUSTRY ALSO HAVE SIMILAR EXPERIENCES AND HAVE CHILDREN WITH DEVELOPMENTAL DELAYS.

– NAIL TECHNICIAN FOR 10 YEARS

RECOMMENDATIONS

There have been several policy interventions in the nail salon industry in New York over the past ten years. However, workers continue to regularly report catastrophic conditions and violation of their rights in nail salons, indicating that the underlying foundations of an exploitative industry have not yet been adequately addressed.

The following recommendations would improve the industry, ensuring that workers can work in dignity and without fear of becoming seriously ill as a result of their occupation:



1. Use a sectoral approach to raising standards across the industry: As in other industries dominated by very small businesses and thin profit margins, nail salon businesses commonly strive to remain competitive by cutting corners on labor costs and health and safety measures. The structure of the nail salon industry suggests that a sectoral approach would be more effective in raising industry standards, by taking wages out of competition and creating a set of standards that are tailored to the particular contours of this industry. This approach is the centerpiece of a bill that has been introduced in the New York State Legislature, known as the Nail Salon Minimum Standards Council Act ([S1800 - Ramos/A378 - Bronson](#)). This proposed legislation would bring together workers, small business owners, and government to identify solutions for creating a healthy and sustainable nail salon industry by considering the comprehensive, interrelated issues with pay, scheduling, health and safety, and enforcement rather than solely implementing piecemeal legislative reforms. Statewide sectoral boards are gaining momentum across the country as a way to raise standards in many low-wage industries where women make up a significant portion of the workforce, from nursing homes to direct home care to fast food.[25-29]

RECOMMENDATIONS

2. Establish pricing standards across the industry to make higher wages and standards viable: New York State has some of the lowest prices for nail services in the country, contributing to extremely low wages and dangerous working conditions in an intensely competitive market.[30] Through research and business cost analyses, the state should determine a pricing model for nail care services that would enable sustainability, compliance, and consumer accessibility. Such a provision for study and recommendation is included in the proposed Nail Salon Minimum Standards Council Act (S1800/A378).

3. Strengthen enforcement and compliance in nail salons: Numerous studies have shown that there is widespread wage theft and health and safety violations in the nail salon industry, along with many barriers that discourage already-vulnerable workers from making formal complaints. A strategy for more proactive investigation of the industry will decrease reliance on worker-initiated complaints to guide enforcement, and the nail salon business licensing process should incorporate a more comprehensive compliance, monitoring, and enforcement plan for the industry.



ENDNOTES

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About the New York Healthy Nail Salons Coalition: Founded in 2014 by Adhikaar and the New York Committee for Occupational Safety and Health (NYCOSH), the NY Healthy Nail Salons Coalition was formed around the central idea that nail salon workers deserve just jobs: healthy workplaces with living wages and a voice in their working conditions.

The Coalition includes workers, community, occupational health, consumer, and public interest law organizations to combat wage theft, health and safety violations, and other abuses in the nail salon industry. Since its founding, the coalition won the nation's first Nail Salon Workers' Bill of Rights in 2015, and successfully advocated to eliminate the tipped subminimum wage for nail salon workers in 2019.