Healthy Nail Salon Project
Reducing Chemical Exposures in Nail Salons

*Safety & Ventilation*
Presenters

Tammy Dang, Environmental Coalition of South Seattle (ECOSS)

Laurie Foster
Local Hazardous Waste Management Program (LHWMP)
Working Together to Reduce Exposure
Keep all chemical containers closed after using. Nail technicians and clients breathe chemical vapors through their nose and into their lungs.
All of these flammable chemicals evaporate into your salon and are highly flammable. Reduce the amount of chemicals with fresh air from your ventilation system and keep containers closed.
Nail salons are often located in spaces designed for *other purposes* such as retail shops or office space. Vapors leak into other business spaces. Their ventilation systems are not designed for chemical use and management.
How Does Ventilation Control Odors?

- Removes some of the chemical vapors before you breathe them
- Supplies some fresh air
Types of Ventilation That Can be Used

*General Ventilation Systems*

- Designed to control temperature, humidity, and amount of fresh air
- Not a complete method of chemical vapor removal, only dilution
- Diluted air will be redistributed to all areas served by that system
- Expensive to install = $10,000 to $20,000
Dilution Ventilation

- Not designed for toxins
- Not source control
- Too far from Breathing Zone of Technician and Client

Photo: ©Walt Stoneburner. Attribution licensed at www.flickr.com/photos/walstoneburner/5333777511/
Inexpensive install. Will bring in fresh air and exhaust bad air. ($300 or less to install)
Other Types Exposure Control Systems

Air Purifiers

Wall or ceiling mounted

Free standing units

These use charcoal or low efficiency filters
Local Ventilation

System should

• Be close to client’s hand
• Draw vapors away from you, not blow vapors towards you
• Be located away from doors, windows and fans that could disturb the air currents
Local Ventilation

- Strong motor
- Carbon-based filter
- The filter should last six months
- Maintenance should be easy
- Lasts 3 to 5 years

May be too loud for clients.
Hose must be next to client and techs. Filters the air through a vent with a charcoal filter and discharges filtered air back into the room (not to the outside)
Types of Local Ventilation

Vented Tables with Charcoal Filters

Filters the air through a vent with a charcoal filter and discharges filtered air back into the room (not to the outside)
Problems with Vented Tables

Filters
- Too small to remove chemicals vapors to a safe level
- Need to be replaced often (monthly?)
- Off gas vapors if not replaced

Fans
- Small, weak motors
- More effective at removing dust
- Not very effective at removing chemical vapors
Smoke from incense is drawn into the fan very slowly. This shows a very weak fan.
As you can see the weak fans on these tables are more effective at collecting fingernail filings and acrylic & gel filing dust. This dust is going into your nose and mouth!!! A good reason to use a N-95 dust mask. (Actually N-95 is called a particulate mask.)
Types of Local Ventilation

Lamp Style – Weak fan – Thin sponge filter

About one teaspoon of dust collected in one week

LHWMP photos by Ned Ahrens
Types of Local Ventilation:

Small weak fan

Too far from clients and tech breathing zone to be effective
Dust extractor – pulls acrylic powder, gel filing dust and nail filing dust away from the technician and client. A dust extractor attachment on the drill may be more tiring on the technician’s arm and hand. Consider purchasing a device that collects dust and vapors that does not need to be hand held.
These tables can be retrofitted to exhaust chemical vapors to the outside of the nail salon.
General Ventilation
What can you do to Improve?

- Vacuum vents to remove dust
- Clean out grillwork
- If dust builds up quickly - replace filters
- Hire contractor if these steps don’t help
What can you do to test?

Turn ventilation on

- Air Supply
  - Check with tissue to see if air coming out

- Air Exhaust
  - Check with tissue to see if it clings/sticks to vent
HVAC Maintenance - Contractors

Yearly Cleaning & Maintenance

Hire a Licensed & Insured Contractor
Plug holes in walls so that the salon does not leak vapors into other businesses. Your general ventilation system should pull the vapors outside. Use a separate general ventilation system from your neighbor’s system to avoid contaminating their business with nail salon chemicals.
It’s important to have both general and local ventilation. GV supplies fresh air. GV also dilutes the air versus removing it from the salon. With most GV vapors are pulled up past your breathing zone into the ceiling exhaust.

The local ventilation device exhaust hose should be next the client’s and tech’s hands where the chemicals are being used to effectively pull vapors away from the clients and techs and away from their breathing zone. (nose and mouth)
General ventilation brings in fresh air and removes bad air. It does not remove vapors before they come into your breathing zone. Local ventilation captures vapors before you breathe them in. The vapors are captured at the source of evaporation.
Summary – Local Ventilation

- Pulls chemical vapors away from you
- Price for effective machine – around $1,000
- Dust extractors - $175 up
- Will attract customers = less chemical smell

Highly recommend to use local ventilation to capture chemical vapors before you breathe them in!!!

Inexpensive and easy to use.
Questions?

• What was new to you today?
• What can you use at work?
• What else do you want to know?
Would you like us to visit?

Photo: IHWMP Ned Ahrens
Please watch our video on ventilation in the nail salon at Sense (san-say) Nail Spa in Shoreline

Let’s watch how effective local ventilation can be at reducing solvent exposure

http://www.lhwmp.org/home/health/nail-salons.aspx
Healthy Nail Salon Project Contacts

Local Hazardous Waste Management Program (LHWMP)

Laurie Foster 206-263-3061

http://www.lhwmp.org/home/health/nail-salons.aspx

Environmental Coalition of South Seattle (ECOSS)

Tammy Dang 206-390-2546
Thanh Duong 206-306-4446

Alternate formats available. Voice: 206-263-3050 or TTY relay: 711
Acknowledgement

Expo Beauty Salon, Seattle
Northbend Nails, Seattle
Sense Nail Spa, Shoreline
Tulip Nails, Seattle

*Lynn Rose Pioneer Valley Project, Massachusetts*