

Abstract #: 330

**Presented by: Brianna Clendenin, MSN/MPH,
Graduate Student**

Chemical Exposure in Nail Salon Technicians

Brianna Clendenin, RN, BSN, USF Sunshine ERC Occupational Health Nursing Program

Keywords: Nail Technician, Occupational Health, Chemical exposure

Objective: Nail salon technicians are exposed to toxic chemicals in the workplace. There is little regulation of cosmetics in the U.S. placing nail salon technicians at risk for developing both acute and chronic adverse health effects. Nail salon technicians face multiple cultural and educational barriers that can be addressed by educating both employers and employees regarding control mechanisms recommended by NIOSH to limit toxic chemical exposure.

Methods: A systematic review of published literature was conducted. Databases searched included CINAHL, PubMed, Google Scholar, CDC, NIOSH, and OSHA.

Results: Although studies have indicated chemical exposure below the Occupational Safety and Health Administrations Permissible Exposure Limits, technicians still commonly report respiratory symptoms and dermatitis. Workers who wear surgical type masks believe it will protect them from chemicals and dust. A National Institute of Safety and Health study indicates decreased lung functioning and increased airway inflammation in workers chronically exposed to acrylics. Evaluating air quality in 21 nail salons revealed carbon dioxide levels well above the Environmental Protection Agencies standards for indicating adequate ventilation. Carbon dioxide levels in 22 salons exceeded EPA standards. Sixty-four percent did not have any mechanical ventilation to provide fresh air or provide local exhaust.

Conclusion: The occupational health and safety nurse can educate and promote the use of local exhaust systems, appropriate use of respirators, gloves, and avoidance of products containing toluene, formaldehyde, or dibutyl phthalate.

Research supported by: Sunshine Education and Research Center

Abstract #: 331

**Presented by: Mayra De Jesus-Rivas, MS,
Graduate Student**

Pneumatic Nail Gun Injury

Mayra De Jesus-Rivas, USF Sunshine ERC Occupational Health Nursing Program

Keywords: nail gun, injuries, safety

Objective: Construction work using nail guns is highly dangerous. When construction workers are injured it is costly to the employee and employer. There are factors that contribute to the cause of injury incidents such as: Organizational stressors, emotional and physical stress and poor safety behaviors. It is important for the OHN to emphasize proper training in the use of any equipment, the regular checking or maintenance of the equipment, and the use of personal protective equipment.

Methods: Evidence-based nursing research.

Results: High numbers of pneumatic nail gun injuries.

Conclusion: Injuries can be preventable.

Research supported by: USF Sunshine ERC



Sunshine ERC Research Poster Session 2014

and Interdisciplinary Research Training

in Collaboration with

USF Health Research Day

February 20th – 22nd, 2014