



CONNECTICUT OCCUPATIONAL HEALTH e-NEWS



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The Connecticut Occupational Health e-News is published quarterly by the Connecticut Department of Public Health to provide occupational health surveillance and educational information to workers, employers, clinicians, and other community partners interested in the protection and promotion of healthy work environments.

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

Keeping Connecticut Healthy

M. Jodi Rell, Governor
J. Robert Galvin, M.D., M.P.H.,
Commissioner

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SPECIAL ISSUE: FOCUS ON AUTO REPAIR



Autobody Work

Connecticut Autobody Worker Hand Sanding Filler from a Damaged Truck,
November 2005

CONTROL OF DUSTS FROM SANDING IN AUTOBODY REPAIR SHOPS

HAZARD

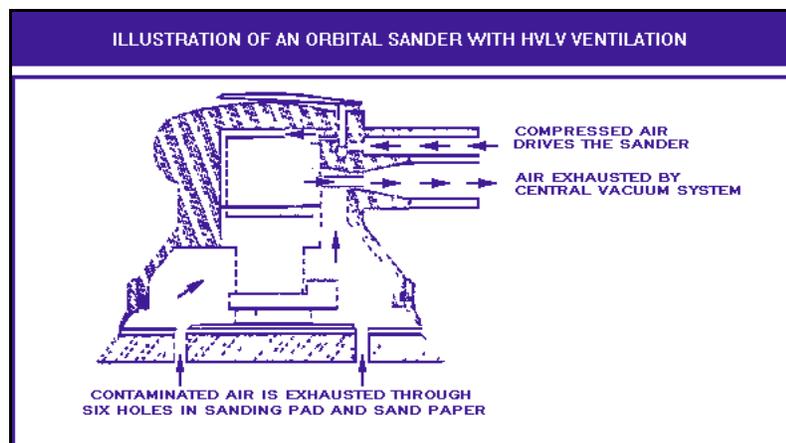
During autobody repair, sanding removes paint from surfaces and smooths body panels repaired with body filling compounds. Airborne dusts produced during these operations may contain hazardous substances, such as lead and chromium from surface coatings and abrasives from sanding discs, that are harmful to the lungs and nervous system of workers. Dust concentrations may also exceed OSHA standards.



CONTROLS

Effective control of worker exposure to dusts from sanding operations on autobody surfaces has been achieved by use of ventilated mechanical sanders. Rotary/orbital and straight line/reciprocating sanders, equipped with HIGH VELOCITY, LOW VOLUME (HVLV) local exhaust ventilation as part of the tool's design, are recommended because they have been shown to be effective in reducing total dust concentrations during the sanding of body filling compounds. HVLV ventilated sanders have cut total dust concentrations to one-tenth the levels produced using unventilated sanders.

Increased cost of sanders equipped with HVLV ventilation is minor compared with non-ventilated sanders. The amount of air used in the ventilated systems is also relatively low. Use of ventilated sanders can be enhanced by making them convenient to use, for example by installing retractable, flexible hosing attached to a central vacuum system. Although initial costs for this system including an air mover, air cleaners, and duct work can be substantial, the system will help eliminate expensive repaints, shorten clean up time, and extend sandpaper life. Workers prefer using these HVLV sanders and also reported their use results in a cleaner shop.



FOR MORE INFORMATION

For a free copy of the report Evaluation of Ventilated Sanders in the Autobody Repair Industry, or for information on other occupational safety and health issues, call the National Institute for Occupational Safety and Health. (NIOSH), at:

1-800-35-NIOSH (1-800-356-4674)

Information reprinted from DHHS (NIOSH) Publication No. 96-105.



Occupational Illnesses and Injuries in Connecticut Auto Repair Workers



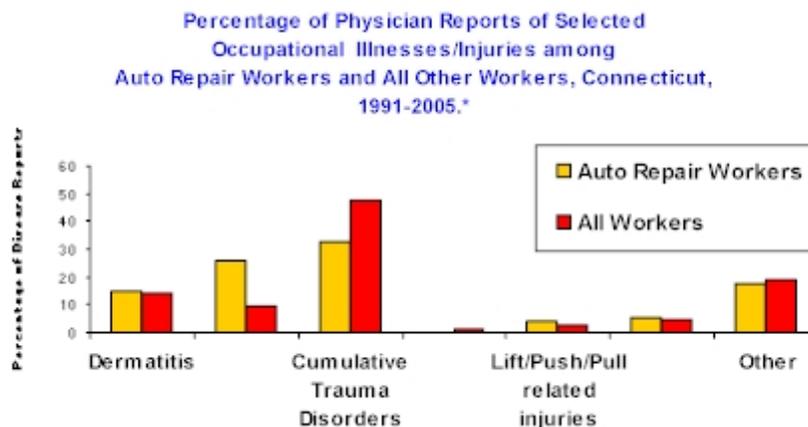
Data from the Connecticut Occupational Illness and Injury Surveillance System

Connecticut State Law requires any physician diagnosing a case of work-related illness or injury to report that case to the Connecticut Departments of Labor and Public Health within 48 hours of diagnosis. The primary source of data utilized by the Connecticut Department of Public Health for tracking occupational illnesses and injuries in the state is the Occupational Illness and Injury Surveillance System (OIISS). The OIISS serves as a computerized database for physician reports of occupational illness and injury received by DPH.

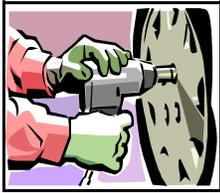
TABLE- 1: Occupational Illnesses/Injuries Among Auto Repair Workers, Connecticut, 1991-2005*

Occupational Disease: All Diseases (Public and Private Sectors Combined)	Auto Repair Workers		All Workers	
	N	%age	N	%age
Allergic/Irritant Dermatitis	11	14.9	3992	14.3
Burns	19	25.7	2715	9.7
Cancer	-	-	36	<1
Cumulative Trauma Disorders (CTD)	24	32.4	13401	48.0
Infectious Diseases	-	-	391	1.4
Lift/Push/Pull related injuries (LPP)	3	4.0	781	2.8
Respiratory diseases	4	5.4	1275	4.5
All other diseases	13	17.6	5351	19.1
Total	74	100.0	27942	100.0

A total of 74 Auto Repair workers have been reported to the OIISS database as of November 16, 2005. Since 1991, cumulative trauma disorders (CTDs) have been the most frequently reported conditions (32.4%), followed by burns (25.7%), and allergic/irritant dermatitis (14.9%). When compared against all other workers in the OIISS database, auto repair workers were more often reported with burns (25.7% vs. 9.7%), allergic/irritant dermatitis (14.9% vs. 14.3%), lift/push/pull related injuries (4.0% vs. 2.8%) and respiratory diseases (5.4% vs. 4.5%).



For more information about the Connecticut Occupational Illness and Injury Surveillance System, please contact the Connecticut Department of Public Health's Occupational Health Program at (860) 509-7744.



SAFETY TIPS

Vibration White Finger Syndrome in Auto Workers



Automobile mechanics make up one of the largest groups of workers that are exposed to hand transmitted vibration. Hand transmitted vibration occurs through the use of pneumatic tools and other machinery that create vibration type movements. Repeated exposure to these types of tools at work can lead to a condition know as vibration syndrome or vibration white finger. The effects of vibration syndrome include adverse circulatory and neural effects in the fingers, which can eventually lead to advanced disease. Below are some tips on avoiding vibration white finger:

- Redesign the work day in order to minimize the use of vibrating hand tools.
- Make sure if you do have to work with vibrating hand tools that you are in a warm environment, or have adequate clothing to keep the body at a warm temperature. Working in cold temperatures further reduces the blood flow to the fingers and may exacerbate damage caused by vibrating tools.
- Substitute a manual tool for a vibration producing tool whenever practical.
- Take frequent breaks when using vibrating hand tools, as this can help to reduce the severity of vibration syndrome
- Vibrating hand tools should be properly maintained to be in the best working order.
- Identify symptoms of vibration white finger early; they include hand numbness, blanching (turning pale or blue) of the fingers, arm/hand/finger pain, and flushing (redness) in the hands and fingers.
- If you use vibrating hand tools at work and you experience any of the symptoms of vibration white finger, you should see a physician immediately.



For additional information on preventing vibration syndrome, the following resources may helpful.

National Institute for Occupational Safety and Health
<http://www.cdc.gov/niosh>

Alaska Department of Labor and Workforce Development
<http://www.labor.state.ak.us/lss/pads/hand-arm.htm>

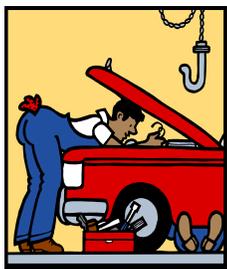
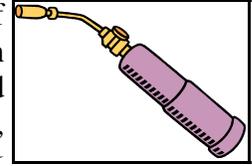
Information abstracted in part from The Bureau of Labor Statistics, The National Institute for Occupational Safety and Health, and Barregard L, Ehrenstrom L, and Marcus K. Hand-arm vibration Syndrome in Swedish Car Mechanics. *Occup Environ Med* 2003; 60:287-294.



Lead Poisoning in Radiator Repair Shops



Workers in radiator repair shops may potentially be exposed to unsafe amounts of lead. Two of the most common sources of lead are fumes and dust. Lead fumes can be breathed in while workers are welding, soldering, burning or using handheld torches on radiators containing lead. Lead dust is formed from cutting, drilling, grinding, or buffing lead containing materials and this dust can settle on floors, work benches, and workers' clothes. Lead can also be ingested when workers eat or smoke without washing their hands after working with lead. These are only a few of the many ways lead exposures can occur in workers employed in radiator repair shops.



Working all day in a workplace contaminated with lead can cause serious health problems if safety controls are not in place and personal protective equipment (PPE) is not used. These health conditions can affect the nervous system, blood, intestines, kidneys and the reproductive system. Some of the early warning signs of lead poisoning include headaches, dizziness, sleep disturbances, fatigue, irritability, and joint and/or muscle pain. The signs and symptoms of lead poisoning are often vague and can easily be confused with other conditions. The blood lead level at which symptoms occur also varies greatly from person to person.

The Connecticut Adult Blood Lead Epidemiology and Surveillance (ABLES) Program collects reports on all lead poisoned workers in the state. For the purposes of this surveillance program in Connecticut, lead poisoning in adults is defined as a blood lead level of 20 ug/dl or greater. Data on workers with blood lead levels of 25 ug/dl or greater are then reported to the Centers for Disease Control where they are combined with similar data from 37 other states for analysis and publication. This dataset generally classifies radiator repair shops under SIC code 7539 (Automotive Repair Shops, Not Elsewhere Classified). Analysis of ABLES data from 38 states for 2002 and 2003 revealed 177 lead poisoning cases from Automotive Repair Shops (SIC 7539), which includes radiator repair shops. Radiator repair shops are considered one of the highest "at risk jobs" for lead poisoning. For example, in Washington State, workers employed in radiator repair have been known to have more cases in the highest blood-lead level category than workers in any other type of business (see reports cited below).

The risks of lead exposure can be reduced in several ways. One of the most effective ways is through the installation of a well-designed ventilation system (fume extraction system) to remove lead fumes and dust from work areas. Respirators can also provide a temporary measure to prevent lead poisoning, if a ventilation system cannot be implemented. However, all respirators must be approved by the National Institute for Occupational Safety and Health (NIOSH) and properly fit tested by an Industrial Hygienist or Occupational Medicine nurse or physician to ensure that they will provide adequate protection against lead dust.



Other ways workers can reduce lead exposure are by wearing protective clothing, keeping work areas clean, practicing good personal hygiene, washing hands and face prior to eating, drinking, or smoking and doing these activities away from the work area, and storing contaminated work clothes separate from street clothes. Good work habits such as these can also help to minimize “take home lead” issues and possibly prevent lead exposure to family members.

For additional information on reducing lead hazards in radiator repair shops, please refer to the following resources:

Preventing Lead Poisoning in Radiator Repair Work
http://www.lni.wa.gov/Safety/Research/files/rad_rep.pdf

Lead Exposure in Radiator Repair Workers: A Survey in Washington State Radiator Repair Shops and Review of Occupational Lead Exposure Registry data
<http://www.lni.wa.gov/Safety/Research/files/radiator.pdf>

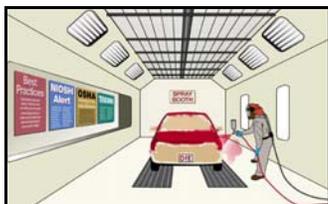
Effectiveness in Disease and Injury Prevention Control of Excessive Lead Exposure in Radiator Repair Workers www.wonder.cdc.gov/wonder/prevguid/p0000158/p0000158.asp

Information abstracted in part from The Labour Department, Saskatchewan, Canada and the Washington State Department of Labor and Industries.

FREE HEALTH AND SAFETY INFORMATION FOR AUTO REPAIR AND REFINISHING WORKERS!

CCAR-*GreenLink*[®] is the National Automotive Environmental Compliance Assistance Center for the automotive industry. It is operated by the Coordinating Committee For Automotive Repair (CCAR) in cooperation with the U.S. Environmental Protection Agency. All documents on their website are created by Federal and State EPA and OSHA offices, as well as the automotive industry.

The [CCAR-*GreenLink*[®] website](#) contains a link to four different virtual shop rooms, each of which contains various information on specific occupational and environmental health topics in a specific auto repair setting. The four virtual shops available online are the [Virtual Automotive Repair Shop](#), the [Virtual Collision Repair Shop](#), the [Virtual Paint Mixing Room](#), and the [Virtual Spray Booth](#). Each room is set-up to provide information on specific hazards located within the virtual room. Examples of the information available include personal protective equipment, best practices in use and clean-up, agency health and safety alerts, and training opportunities.



Visit the CCAR-*GreenLink*[®] Virtual Shops Online

For more information about **CCAR-*GreenLink*[®]**, visit their website, contact them by telephone at 1-888-GRN-LINK (476-5465), or write to them at P.O. Box 26741, Overland Park, KS · 66225-6741. Information and illustrations abstracted from the **CCAR-*GreenLink*[®]** website.