



Georgia Department of Public Health

Occupational Health Surveillance



Source: <http://www.greenlightenergy.us/the-importance-of-metal-recycling/>

Recognizing Lead Hazards: For Workers in Scrap Metal Recycling

Scrap Metal and Lead



Source: <https://en.wikipedia.org/wiki/Scrap>

What is Scrap Metal Recycling?

Scrap metal recycling, also referred to as secondary metal processing, is a process by which metal from machinery, equipment, and building demolition is refined for re-use. Common metal scrap products include old automobiles and home appliances, such as stoves and washing machines. Scrap metal is sold to industry from individuals, industrial manufacturers, and salvage dealers.

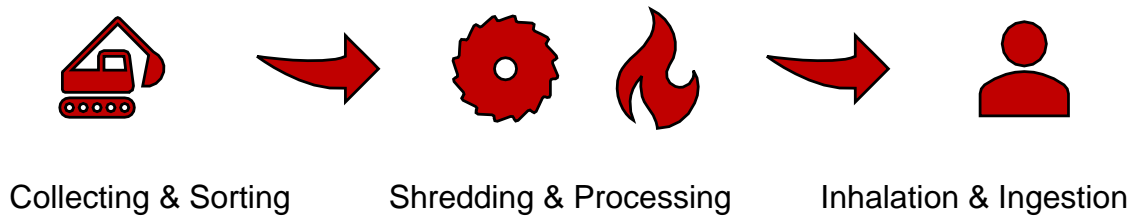
How is Scrap Metal Recycling Associated with Lead Exposure?

Scrap metal may contain lead from multiple sources. Lead may be in the painted coatings of the scrap or it may be present as a pure metal. During the sorting and shredding processes, lead dust is created and during the burning and torching processes, lead fumes are released¹. Through these refining and recycling processes, workers may breathe toxic lead dust into their lungs or swallow lead dust that settled on their hands or surfaces that were not adequately cleaned/washed. Additionally, workers may transfer lead particles from their hair, skin, and work attire to their food, personal vehicles, and their homes.²

¹ https://www.lni.wa.gov/Safety/Research/files/lead_scrap.pdf

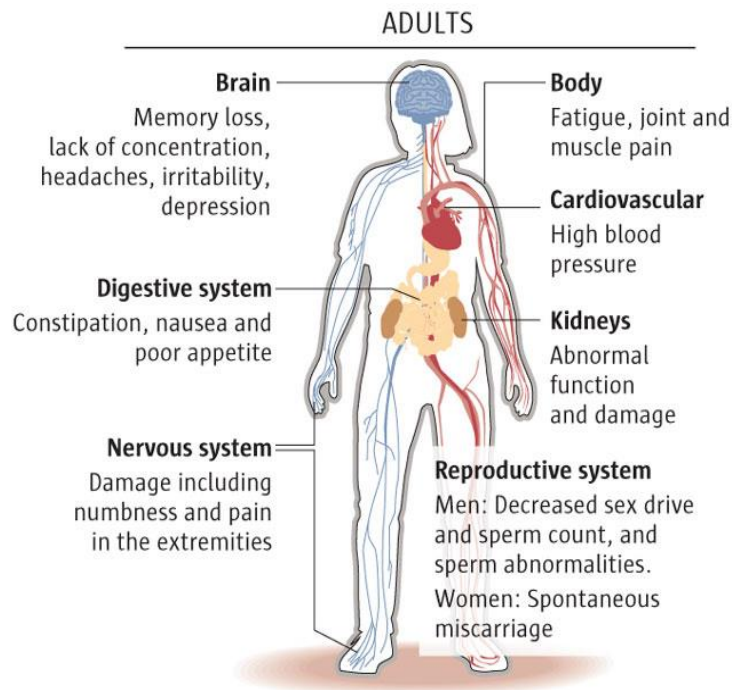
² <https://www.cdc.gov/niosh/topics/lead/exposure.html>

How Lead Transfers from Materials to Workers



What are the Effects of Lead Exposure?

Once lead is absorbed into the body, it becomes concentrated in the blood, mineralizing tissues such as bones and teeth, and in soft tissue organs such as the liver, kidneys, brain and heart.³ Lead exposure and toxicity is associated with a variety of adverse health conditions, including memory loss, decreased cognitive function, chronic kidney disease, decreased fertility, and lower bone density.⁴



Graphic by Mark Nowlin, The Seattle Times

³ <https://www.atsdr.cdc.gov/csem/csem.asp?csem=34&po=9>

⁴ <https://www.atsdr.cdc.gov/csem/csem.asp?csem=34&po=10>

How Do I Reduce My Occupational Exposure to Lead?

You can reduce your exposure to lead by wearing personal protective equipment (PPE), including eye protection, gloves and respirators while conducting work duties. Work areas should be properly ventilated with high-efficiency particulate air (HEPA) filters. Additionally, workers should exercise caution when dry sweeping floors, cleaning equipment, emptying trash, and maintaining ventilation devices.

To prevent lead take-home exposures, employees should:

- Take a decontamination shower at the end of each shift.
- Keep street clothes separated from work clothes and avoid wearing or taking work clothes or shoes home.
- Wash your hands, wrist, forearms, and face before eating on the job.
- Inform your primary care doctor that you work with lead and other metals to monitor your blood lead levels* and those of your family.

What are My Rights as a Worker?

Under OSHA law, workers have a right to:

- Working conditions that do not pose a risk of serious harm
- Receive information and trainings about workplace hazards, methods to prevent them, and OSHA standards that apply to their workplace
- See copies of the workplace injury and illness log
- Be protected from toxic chemicals and provided with required safety gear

To learn more about your rights as a worker visit: [osha.gov/workers/index.html](https://www.osha.gov/workers/index.html).

**According to the Occupational Safety and Health Administration (OSHA), the permissible blood lead level (BLL) for workers in general industry is below 60µg/dL and below 50µg/dL for workers in the construction industry. However, the Centers for Disease Control and Prevention (CDC) states that a BLL as low as 5µg/dL can lead to lead poisoning.*

Employer Resources

On-site Consultation:

The Georgia Tech Consultation Program provides a free, confidential, on-site consultation service for small companies (fewer than 250 employees and not more than 500 employees corporate wide) that need assistance in occupational safety and health. Employers can request a consultation to help their company:

- Comply with OSHA's rules and regulations
- Identify physical hazards (such as lead exposures)
- Evaluate technical programs (such as hazard communication)
- Correct hazards and improve safety and health management systems

To receive consultation service, call 404-894-4121 or complete a request form at: oshainfo.gatech.edu/about.



Occupational Health Surveillance

The Georgia DPH Occupational Health Surveillance Program collects data on work-related injuries, illnesses, and hazards among Georgia workers to identify leading occupational health and safety problems in the state. The program also conducts follow-back and intervention activities for adults with elevated blood lead levels and provides data and educational materials on adult lead exposure.

For more information visit:

dph.georgia.gov/georgia-occupational-health-and-safety-surveillance-program

Other Resources

Georgia Healthy Homes and Lead Poisoning Prevention Program
dph.georgia.gov/healthy-homes-and-lead-poisoning-prevention

United States Environmental Protection Agency (EPA)
epa.gov/lead

The National Institute for Occupational Safety and Health (NIOSH)
cdc.gov/niosh

Occupational Safety & Health Administration (OSHA)
osha.gov
1-800-321-OSHA (6742), TTY 1-877-889-5627

Georgia Department of Public Health

Georgia Occupational Health Surveillance Program

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