



Georgia Department of Public Health

## Occupational Health Surveillance



Source: <https://insideevs.com/gm-shifts-2015-chevy-spark-ev-battery-manufacturing-house-facility/>

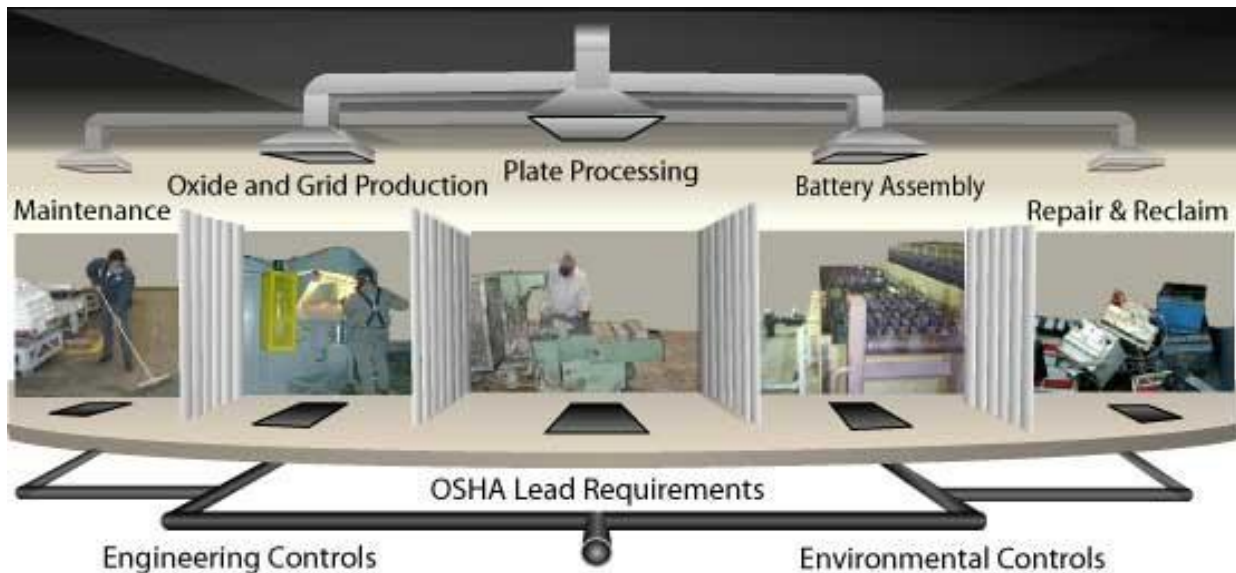
## Recognizing Lead Hazards: For Workers in Battery Manufacturing

## **What is Battery Manufacturing?**

The Occupational Safety & Health Administration (OSHA) describes battery manufacturing as the production of lead-acid batteries.<sup>1</sup> Lead-based batteries are used in a variety of industries such as marine, medical, and nuclear. Additionally, these batteries power devices including automobiles, forklifts, and electric wheelchairs.

## **How is Battery Manufacturing Associated with Lead Exposure?**

Battery manufacturing uses various lead compounds to create the final product. Lead compounds are present during the oxide and grid production, plate processing, and assembly stages of battery manufacturing. During these processes, lead dust is created as a byproduct and is the main source of exposure for workers. Workers may breathe this toxic lead dust into their lungs or swallow lead dust that has settled on their hands or surfaces that were not adequately washed/cleaned.

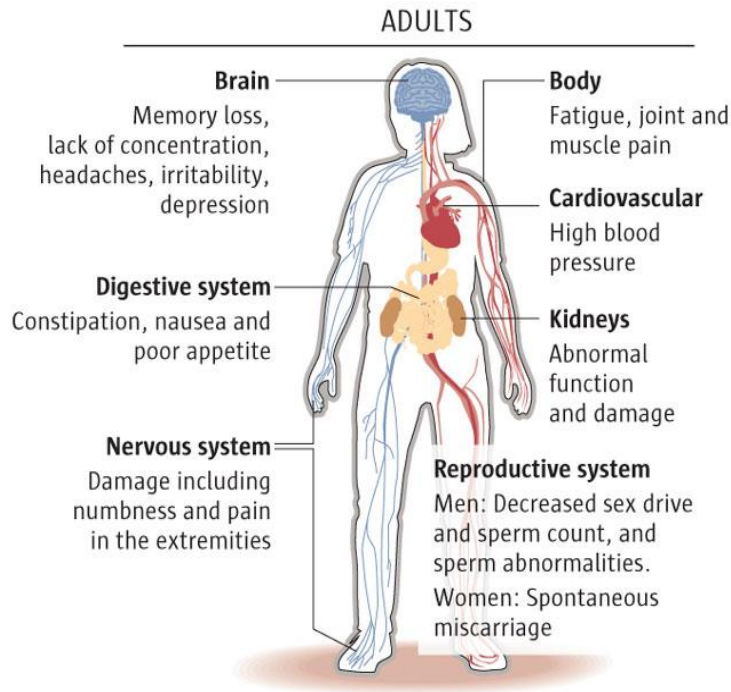


Source: [https://www.osha.gov/SLTC/etools/battery\\_manufacturing/index.html](https://www.osha.gov/SLTC/etools/battery_manufacturing/index.html)

<sup>1</sup> [https://www.osha.gov/SLTC/etools/battery\\_manufacturing/index.html](https://www.osha.gov/SLTC/etools/battery_manufacturing/index.html)

## 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. 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.



Graphic by Mark Nowlin, The Seattle Times

## 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. To prevent lead take-home exposures, employees should:

- Take a decontamination shower at the end of each shift
- Avoid wearing or taking work clothes or shoes home
- Wash your hands, wrists, 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

*\*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.*

## **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).

## **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](https://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](https://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](http://dph.georgia.gov/healthy-homes-and-lead-poisoning-prevention)

United States Environmental Protection Agency (EPA)  
[epa.gov/lead](http://epa.gov/lead)

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

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

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