

## TAKE-HOME LEAD HAZARDS

### THE RISKS

- Lead is a chemical element commonly utilized in the manufacturing of small arms ammunition and released during the test firing of firearms.
- Employers and employees working in environments where there is a potential for lead exposure should be aware of the hazards posed by lead not only in the workplace, but in the homes or vehicles of employees, if not properly managed.
- Lead exposure can have serious health effects, but the potential impact to children under the age of six, pregnant women, and developing fetuses is particularly dangerous.
- Lead poisoning may cause learning, behavior and health problems in young children.
- Exposure to lead before or during pregnancy has been linked to miscarriages, premature births and stillbirths, as well as problems with infant brain and nervous system development.



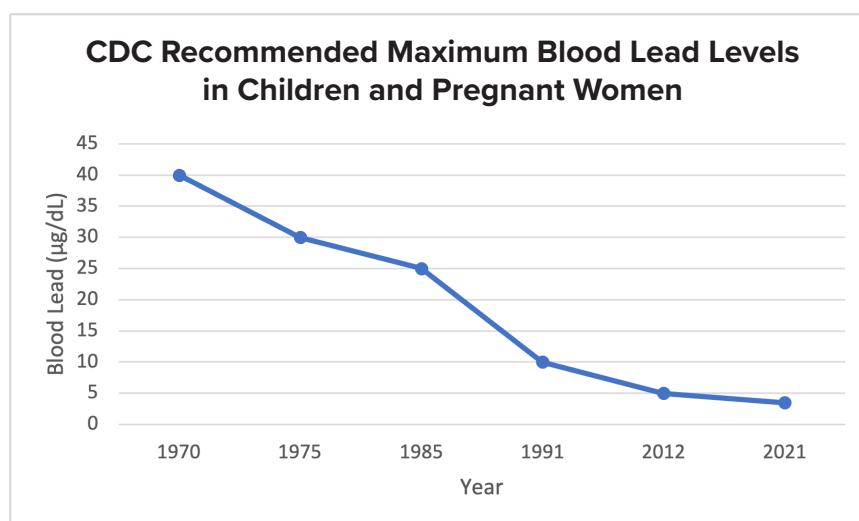
### WHAT'S THE STANDARD?

- OSHA's lead standard (29 CFR 1910.1025) governs occupational exposure to lead in the workplace; including ammunition manufacturing and test firing of firearms.
- These regulations focus predominantly on airborne lead levels and set actions required of employers if certain levels are exceeded.
- This standard includes medical removal protection requirements when employees record elevated blood lead levels, but does not have any specific requirements related to lead migration out of the workplace.

Blood Lead Level (BLL) Reference Guide <sup>a</sup>	
Reference	BLL (µg/dL)
Average American Adult	0.855
Michigan OSHA and US Department of Defense Return to Work Level	15
US Department of Defense Medical Removal Level	20
Michigan OSHA Medical Removal Level	30
Federal OSHA Return to Work Level	40
Federal OSHA Medical Removal Levels	50 - 60

<sup>a</sup> For additional details and background information please see: <https://www.osha.gov/sites/default/files/laws-regs/federalregister/2022-06-28.pdf>

- Migration of lead from a workplace, into the vehicles and homes of employees can create a route of exposure for children and other family members.



- Although your levels might have been considered safe years ago, the benchmarks have changed.

## EPA & HUD LEAD CLEARANCE LEVELS

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- The EPA and HUD recently reduced their lead clearance levels.
- The new standard calls out 10 µg/ft<sup>2</sup> for floors, 100 µg/ft<sup>2</sup> for interior windowsills, and 400 µg/ft<sup>2</sup> for window troughs.
- OSHA uses an older HUD clearance level (200 µg/ft<sup>2</sup>) as a workplace [guideline](#) for keeping surfaces as free as practicable of lead accumulations.

## WHAT STATES ARE LOOKING AT THIS OR HAVE STANDARDS?

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All 50 States have information publicly posted and available regarding take-home lead in some way, shape, or form. Some States have enacted laws and regulations with requirements for employers. You are highly encouraged to research requirements for your area to determine what responsibilities you may have as an employer or business.

## HOW TO PREVENT IT

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### Where to start:

- Identify high contact surfaces where lead could migrate from your operations.
- Collect [lead wipe samples](#) throughout your facility to evaluate lead migration.
  - Consider collecting lead wipe samples on floors, doors, employees clothing, personal items, vehicles, shoes, and palms of hands to assess the effectiveness of your lead housekeeping program and the overall take home risk.



## BEST PRACTICES FOR PREVENTION

- Restrict/minimize personal belongings in production areas where lead exposure is likely.
  - Provide lockers or cubbies for the storage of personal items.
- Institute dedicated cleaning regimens in high-lead areas of the facility.
  - Dedicate cleaning supplies and equipment for lead environments and ensure these supplies and equipment are not used in non-lead areas of your facility.
  - Document the types and frequencies of cleaning that occurs at your facility in a lead housekeeping program.
  - Conduct follow-up lead wipe sampling to evaluate the effectiveness of your lead housekeeping program.
- Use sticky mats at the exits and entrances to areas where lead is used or generated to reduce lead migration by foot.
- Conduct the OSHA required personal protective equipment (PPE) hazard assessment in accordance with 29 CFR 1910.132(d) to determine the required PPE for your workplace.
  - PPE typically used to reduce lead exposures includes, but is not limited to, chemical resistant gloves, aprons, uniforms, coveralls, boot covers, and respirators.
- Conduct the OSHA required airborne lead dust monitoring within your employees' breathing zone to determine how much of OSHA's lead standard applies to your operations.
- This sampling should occur under peak production and include non-routine tasks such as cleaning, lead reclamation, and filter changes.
- Require the use of lead-specific hand soaps and/or wipes to reduce hand contamination before employee breaks, prior to employees eating or drinking, and at the end of the workday.
- Train your workforce on:
  - Risks of take-home lead
  - Benefits of testing family member blood lead levels
  - Hand hygiene, PPE, and cleaning/decontamination protocols
- Ensure at least the following lead hazards are addressed within your Hazard Communication Program: reproductive/developmental toxicity; central nervous system effects; kidney effects; blood effects; and acute toxicity effects.
- Provide Appendices [A](#) and [B](#) of OSHA's Lead standard ([29 CFR 1910.1025](#)) to all workers potentially exposed to lead.



## LEAD PROGRAMS BY STATE

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<a href="#">Alabama</a>	<a href="#">Hawaii</a>	<a href="#">Massachusetts</a>	<a href="#">New Mexico</a>	<a href="#">South Dakota</a>
<a href="#">Alaska</a>	<a href="#">Idaho</a>	<a href="#">Michigan</a>	<a href="#">New York</a>	<a href="#">Tennessee</a>
<a href="#">Arizona</a>	<a href="#">Indiana</a>	<a href="#">Minnesota</a>	<a href="#">North Carolina</a>	<a href="#">Texas</a>
<a href="#">Arkansas</a>	<a href="#">Illinois</a>	<a href="#">Mississippi</a>	<a href="#">North Dakota</a>	<a href="#">Utah</a>
<a href="#">California</a>	<a href="#">Iowa</a>	<a href="#">Missouri</a>	<a href="#">Ohio</a>	<a href="#">Vermont</a>
<a href="#">Colorado</a>	<a href="#">Kansas</a>	<a href="#">Montana</a>	<a href="#">Oklahoma</a>	<a href="#">Virginia</a>
<a href="#">Connecticut</a>	<a href="#">Kentucky</a>	<a href="#">Nebraska</a>	<a href="#">Oregon</a>	<a href="#">Washington</a>
<a href="#">Delaware</a>	<a href="#">Louisiana</a>	<a href="#">Nevada</a>	<a href="#">Pennsylvania</a>	<a href="#">West Virginia</a>
<a href="#">Florida</a>	<a href="#">Maine</a>	<a href="#">New Hampshire</a>	<a href="#">Rhode Island</a>	<a href="#">Wisconsin</a>
<a href="#">Georgia</a>	<a href="#">Maryland</a>	<a href="#">New Jersey</a>	<a href="#">South Carolina</a>	<a href="#">Wyoming</a>