

LEAD:OSHA Training

Presented by



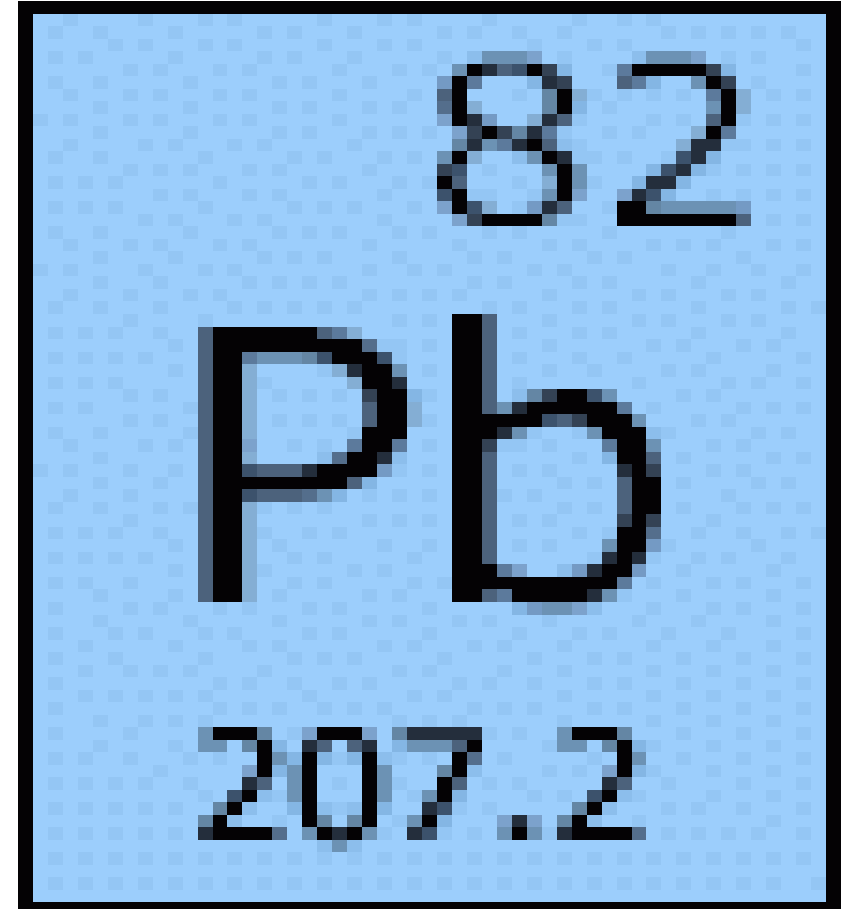
GCG Risk Management, Inc.

LEAD

- What is Lead?
- How can lead harm you?
- How it can enter your body?
- Effects of overexposure
- Air Monitoring Program
- What does to keep your exposure to lead to a minimum
- How you can limit the amount of lead entering your body and protect your family and loved ones



What is Lead?



What is Lead?

- Lead is an element (does not break down)
- Very common element
- Is soft malleable
- Bluish white when pure, turns grayish when exposed to air
- Used in manufacture of batteries, fishing line weights



Where can Lead be found?

- Automobile Batteries (lead acid)



- Fishing tackle weight



- Solder



- Bullets



- Alloys



- Used to be used in paint and gasoline

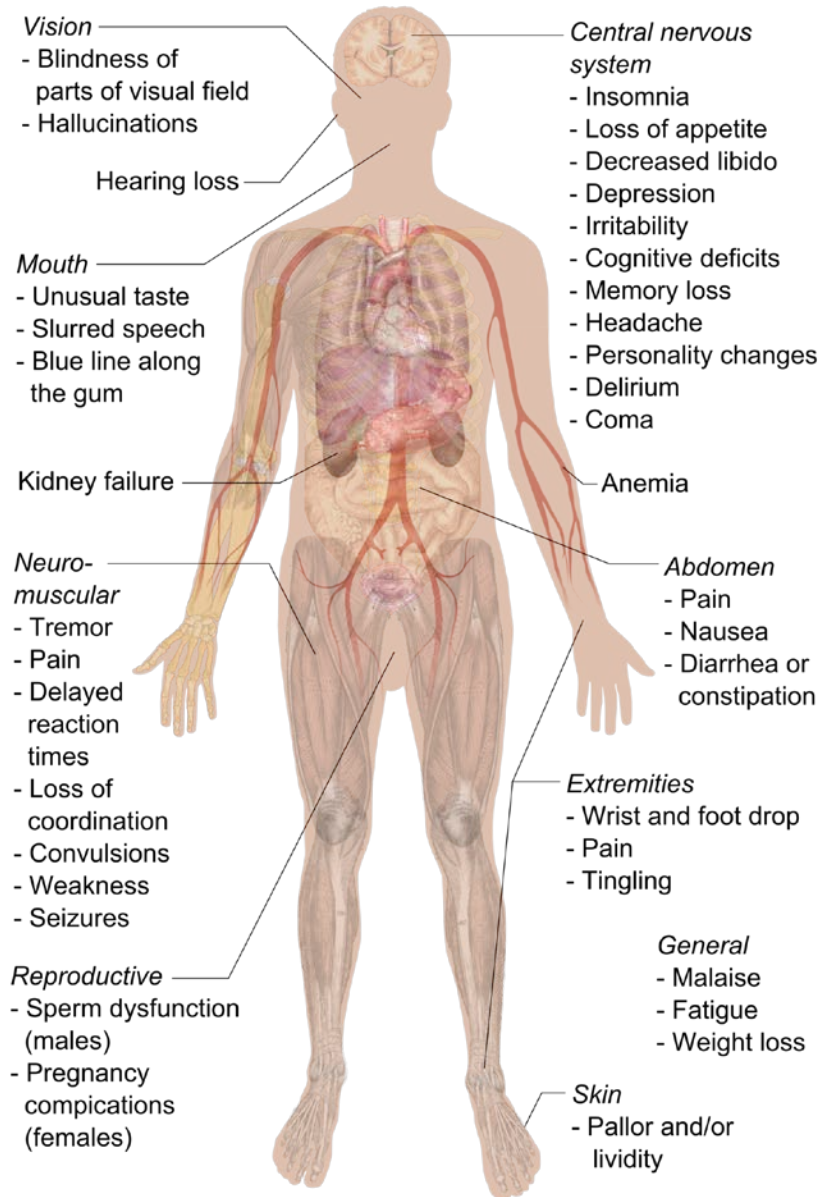




How lead can harm you?

- Nervous system damage
- Kidney damage
- Reproductive System
- Blood
- Can be stored in bone and leach out (especially during periods of stress on body such as pregnancy, aging and osteoporosis)

Symptoms of Lead poisoning

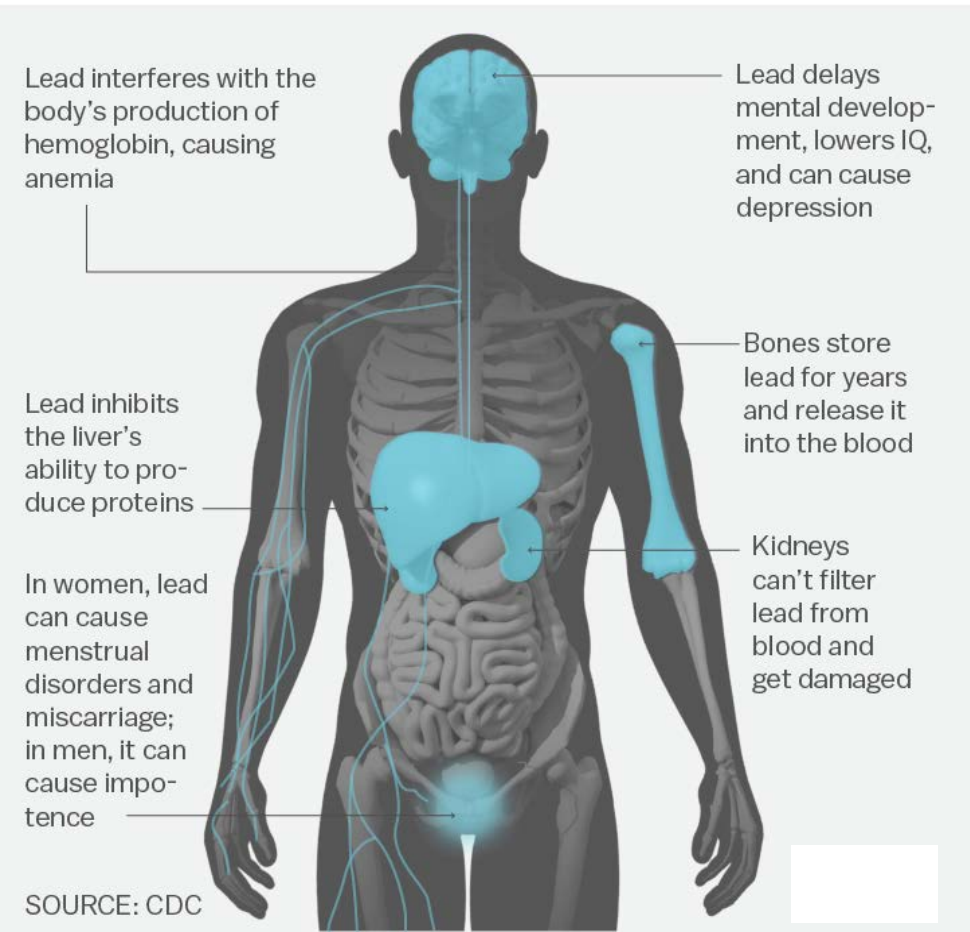


How lead can harm you?

Acute – Short term effects

- Fatigue
- Restlessness
- Headache
- Poor memory
- Dizziness
- Drowsiness
- Hallucinations
- Delirium
- Convulsions
- Coma

How lead can harm you?



Chronic effects

- Headache
- Dizziness
- Nausea
- Loss of appetite
- A metallic taste
- Insomnia
- Excessive tiredness
- Muscle/joint pain
- Constipation
- Colic

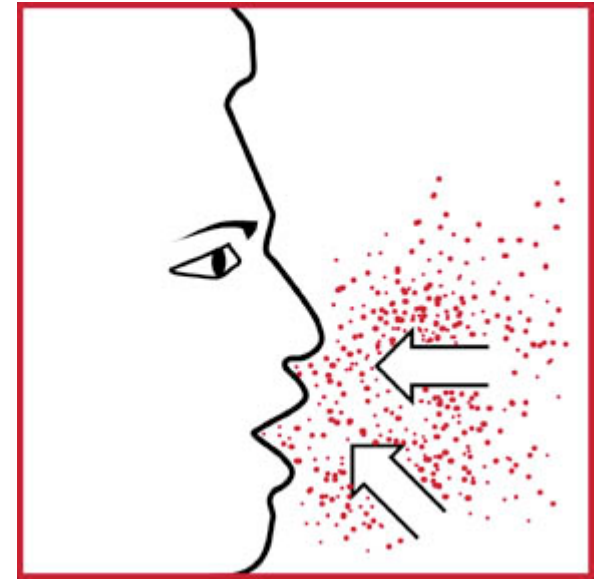
Extreme acute
overexposure (Rare from
work exposure)



- Seizures
- Heart failure
- Death

Ways you are exposed to lead

- Breathing in lead dust
- Breathing in lead fume (lead being melted)
- Ingestion of lead (lead left on hands if not washed)
- From either breathing or ingestion it will enter the bloodstream



Lead Monitoring Program

- Airborne monitoring
- Employee wears pump during shift with cassette
- Air particles collected on cassette and then analyzed in lab for lead.
- Report is calculated based on air monitoring result in weight/ unit volume
- Also can rely on historical data



Key #'s to remember from monitoring

- **AL (Action Level) –
30 micrograms/cubic meter**

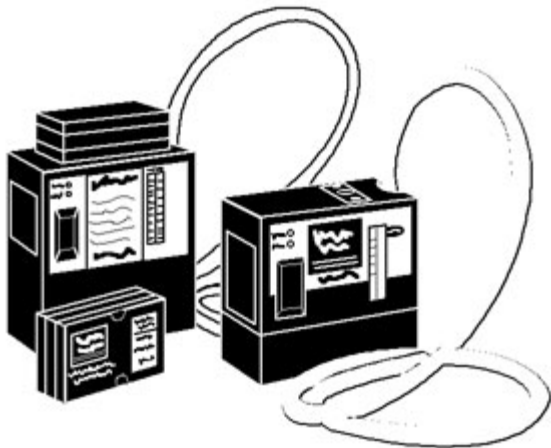


- **PEL (Permissible Exposure Level) –
50 micrograms/cubic meter**



Lead monitoring Decision Tree - Less than PEL

- If exposure level is ***below*** 30 micrograms/liter(Action Level), ***no further action is needed*** (unless process, equipment or personnel change).
- If ***above*** the Action Level, at or above 30 micrograms/liter, and less than 50 miv, then ***additional monitoring is needed***.
- ***Monitoring to be done every 6 months.***
- ***Education on lead performed annually.***
- You will be notified in writing within 5 days that the results are known.



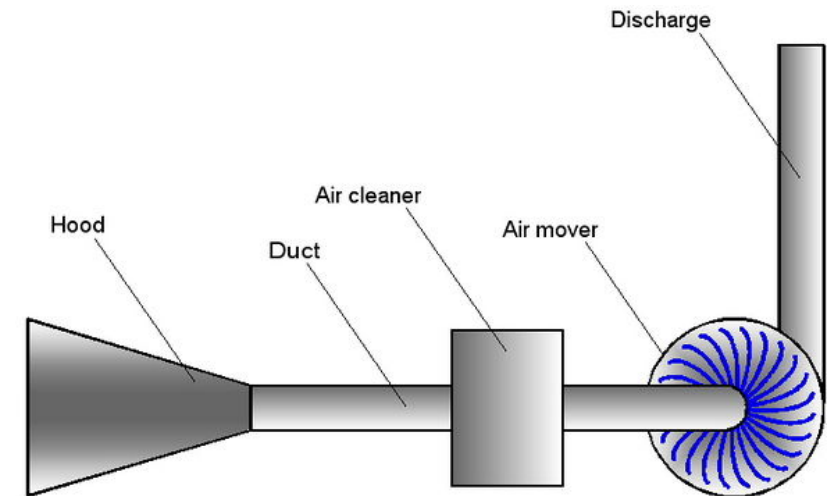
Lead Monitoring- if above the PEL

- If process that causes the lead levels to be above the PEL are performed 30 times/year. Employees will be involved in a blood monitoring program.



Lead Monitoring Decision Tree – Exposure at or above PEL

- Appropriate controls must be adopted by your employer
- Ventilation
- Respirator Program
- Monitoring should be performed every 3 months



Taking care of yourself and your family

- Wear all personal protective equipment required.
- Practice good personal hygiene. Always wash hands before eating, drinking or smoking.
- Do not eat in areas that are contaminated with lead.
- If you smoke, do not keep your cigarettes

