

# Childhood Lead Poisoning Prevention

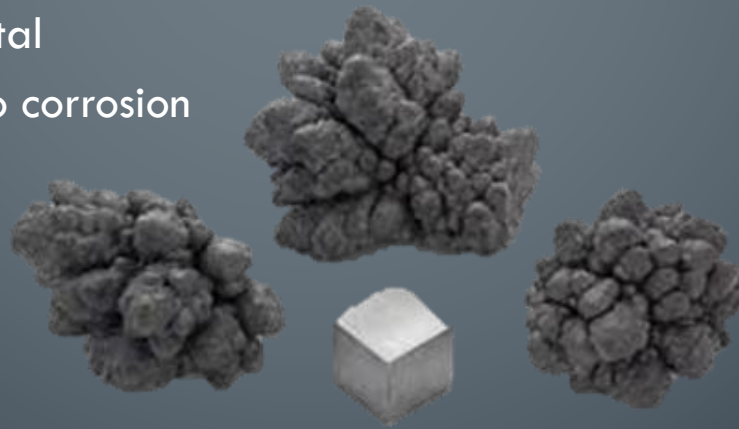
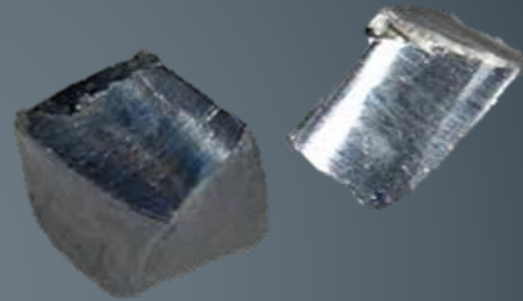
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-Healthy Homes**

# What is Lead?

Lead is a naturally occurring element found in small amounts in the earth's crust.

## Lead properties:

- Very soft
- Dense
- Ductile (moldable) metal
- Stable and resistant to corrosion



# Where does it come from?

Lead is found in all parts of our environment

soil, air, water, and in homes

\*Homes built prior to 1978 are the greatest risk to have lead paint.

\*The older the home the greater the risk.

\*Indiana is ranked 11<sup>th</sup> in homes built before 1978



# Past use of lead- Now Banned



# Current use of lead





## Exposure and Effects

- Lead poisoning

- caused by swallowing or breathing lead particles.

- Children under 6 years old are at most high risk.

- Children typically ingest the lead dust particles



# Risk from Exposure

All Children 6 years of age and under at most risk for lead poisoning.

Children absorb the toxin easily than adults.

- Expected mothers if they are exposed to lead can pass into their unborn child, which has an negative effect on development.
- **Susceptible Disparity Factors:**
  - Living or being cared for in homes built before 1978
  - Low-income families
  - Being exposed to individuals who work or have hobbies that may have lead
  - Recent Refugees families
  - Medicaid recipients
  - Between the ages of 9months and 2 years



# Indiana vs. Marion County Test data

- Indiana-
- -Tested: 933 ,
- -BLL >5ug/dL : 52
- -BLL >5ug/dL%: 5.6%
  
- Marion County-
- - Tested- 319
- -BLL >5ug/dL- 20
- -BLL>5ug/dL%- 6.3%

# Health Risk from Exposure

- Behavior and learning problems
- Lower IQ and Hyperactivity
- Slowed growth
- Hearing Problems
- ADHD
- Anemia
- Seizures
- Non-specific symptoms
- \* Many of these health risk are delayed display of exposure  
The severity of the effects depend on the duration of exposure



# Academic Success/**FAILURE**

- Inattentive
- Hyperactive
- Disorganized
- Not able to follow directions
- Absenteeism
- Classroom attention and behavior
- Graduation



**Together we can protect our children!!**



# Call to Action

- Provide opportunity for children to be tested
  - IPS current resolution
  - House Bill – Rep. Ryan Dvorak
- Partner to provide education
  - faculty
  - Parents
- Provide enrichments and interventions for affected children prior to manifestation of effects



## Testing

- 1<sup>st</sup> grade and younger
- Blood test is a simple finger stick
  - experienced pediatric phlebotomists
  - Universal precautions used/bloodborne pathogens training
  - can typically test about 100 students each visit
- Two signed forms
  - Consent
  - Registration/Notice of Privacy Practices
- Years of experience testing in school settings



# Marion County Health Dept. Resources

## What the department provides...

- If a child has been found to have a BLL equal to or greater than the reference value (currently 5 ug/dL)
  - will contact the parent/guardian to arrange for a confirmatory test
- If elevated level is confirmed, child will be entered into case management
  - Home environmental assessment for lead hazards
  - Take patient history and examine behaviors that may increase lead exposure/absorption
  - Nutrition screening and education
  - Developmental screening and education
  - Guidance on lead safe cleaning techniques
  - Monitoring future blood lead levels to ensure level is decreasing
- Provide referrals for nutritional and developmental interventions
- Free lead testing follow-up at clinic on Thursdays from 12-4:30 pm



# Partner for Education

- Staff and Faculty
  - Invite MCPHD to present to staff
    - Professional development meeting
    - Smaller group or key staff (school nurse)
- Provide education to families
  - Invite MCPHD to be present at open houses, PTO meetings





# Interventions

- Learning enrichments prior to displayed effects
- Provide priority seating
- Extra time on test
- Allow to view teacher's notes
- Limited questions on test
- Altered grading scale
- Follow student throughout school years in anticipation of potential problems

