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PowerPoint - Lead and its impact on humans and the environment

Center for Urban Resilience

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LEAD

Lead and its impact on humans
and the environment

What Is It?

- Type of metal
- Mined from an ore called galena
- Used in products such as paint and vinyl
- Banned from gasoline (nowadays unleaded)
- Shown to be hazardous to humans



Where Do You Find Lead

- Lead-acid batteries
- Children's Toys
- Paints
- Alloys
- Ammunition
- Food
- Vinyl
- Soil/Dust
- Air
- Water

Why Should We Care?

- Impact on humans
- Impact on the environment



Impact on Humans

- Lead Poisoning
- Congenital Lead Poisoning

Lead Poisoning Sources

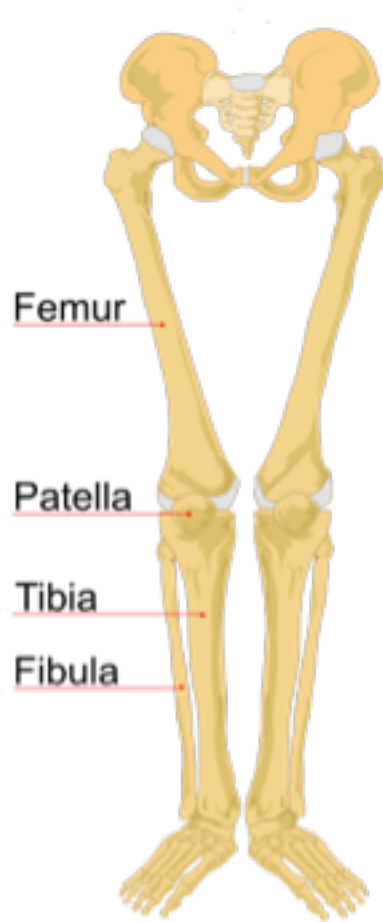


Lead Poisoning

- Mimics calcium and bypasses the blood brain barrier to harm brain cells.
- Causes problems with thinking and other cognitive functions



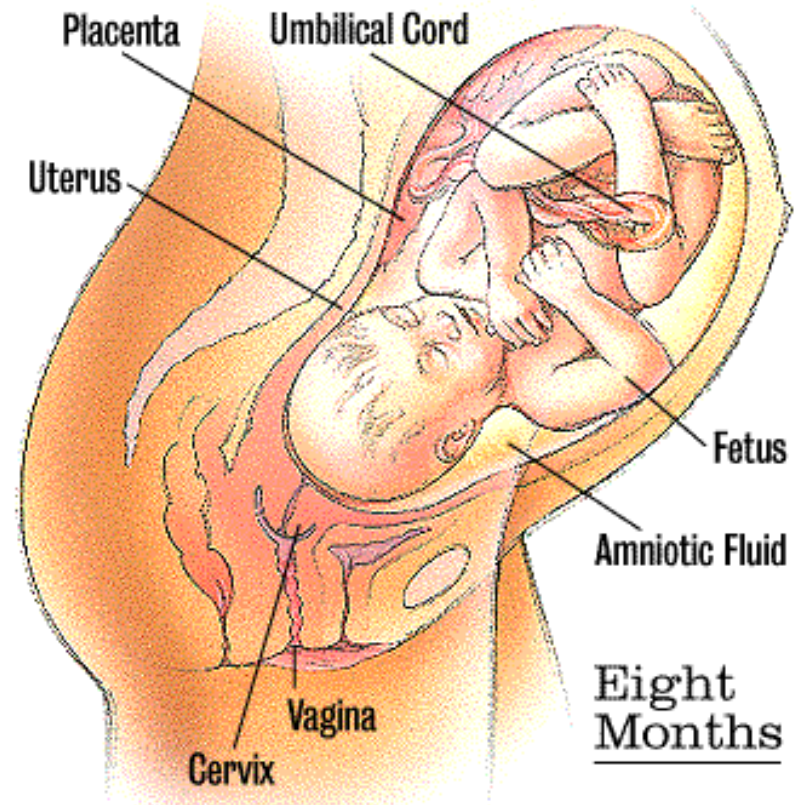
Lead Poisoning



- May be stored in bones and released later

Congenital Lead Poisoning

- Lead passes from mother to fetus through umbilical cord
- Linked to low birth weight and cognitive problems



Lead Statistics

- Lead Exposure in Children
- Generally affects 1-5 year old children
- CDC states 310,000 children, ages 1-5 tested with elevated levels for lead

Impact on the Environment

- Contamination of air, soil, and water



How do you test for it?

- In humans, a blood test (a level of 10 micrograms/deciliter or more)
- On surfaces and in soil, use a lead test kit (sometimes immediate, sometimes you need to send the sample to a lab)

Final Thoughts

- Where might you find lead?
- Who is most affected by lead poisoning?
- Who is responsible for the impact of lead on humans and the environment?
- What can we do about lead poisoning?