

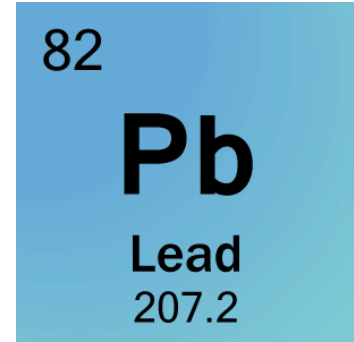
# Lead 101

Virginia Department of Health  
Virginia Childhood Lead Poisoning Prevention Program  
October 1, 2024



# What is Lead?

- A highly toxic, naturally occurring metal found in the environment
- Lead is very soft and malleable, so it has been used in many different consumer products
- Lead paint was banned in 1978, and lead service lines were banned in 1986 (in the U.S.)
- Lead prevents the bodies of growing children from absorbing iron, zinc, and calcium. These minerals are essential to proper brain and nerve development
- There is no safe level of lead in the body



# Sources of Lead Exposure

There are many different sources of lead, but some of the most common are:

- Chipping and peeling paint (in buildings built before 1978)
- Lead dust from deteriorating lead-based paint
- Water from pipes and plumbing containing lead
- Lead-contaminated soil
- Imported or antique toys
- Imported candy
- Ceramics and pottery
- Traditional folk medicines and cosmetics



## Who Is Most at Risk?

Children under the age of six are the most at risk for the harmful effects of lead exposure because:

- Their bodies are still rapidly growing and developing
- They are more likely to be exposed to lead from crawling on the floor and hand-to-mouth behaviors
- Their bodies absorb lead more easily than the bodies of adults

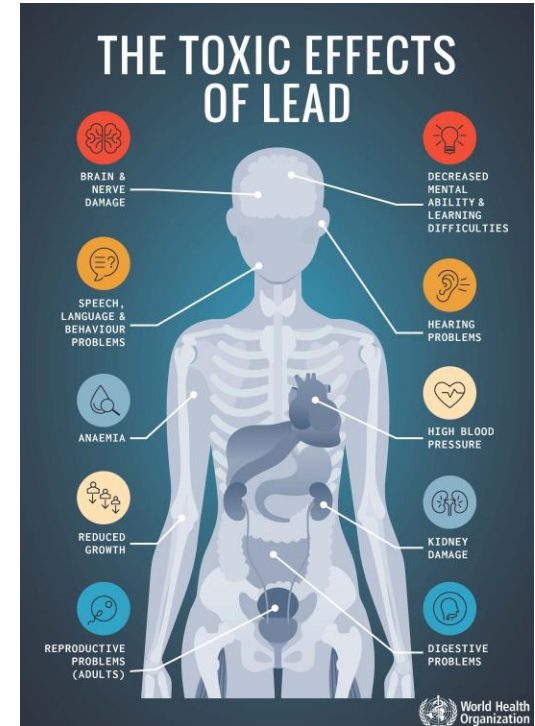
Children are often exposed to lead through ingestion and inhalation.



# Negative Health Impacts of Lead Exposure

How is exposure to lead dangerous for young children?

- Exposure to lead can cause...
  - Slowed growth and development
  - Learning and behavior problems
  - Hearing and speech problems
  - Damage to the brain and nervous system
  
- These health issues can contribute to...
  - Decreased IQ
  - Inability to pay attention
  - Decreased performance in school
  - Increased aggressive behavior



# Blood Lead Testing

- Most children that are exposed to lead don't show any signs or symptoms that they are sick. The best way to know for sure if a child has been exposed to lead is with a blood lead test
- If your child was potentially exposed to lead, ask your health care provider for a blood lead test. This test can be either a capillary (finger prick) or a venous test
  - If the capillary test result is  $\geq 3.5 \mu\text{g/dL}$ , your child will need a follow-up test within 12 weeks
  - If the blood lead level is confirmed (one venous blood test  $\geq 3.5 \mu\text{g/dL}$  or two capillary blood tests  $\geq 3.5 \mu\text{g/dL}$  drawn within 12 weeks of each other) your child will need routine follow-up testing to monitor the lead level

# Public Health Follow-Up

- If your child has a blood lead level  $\geq 3.5$   $\mu\text{g}/\text{dL}$ , your local health department will conduct follow-up based on the level (according to the procedures in the [Virginia Blood Lead Testing and Case Management Guidelines](#))

BLOOD LEAD LEVEL ( $\mu\text{g}/\text{dL}$ )	ACTION	TIME FRAME
3.5 - 9.9	<p><b>Local Health Department Staff:</b></p> <ul style="list-style-type: none"> <li>Conduct a follow-up phone call to the family of the case child to educate about lead poisoning prevention protocols and next steps (as resources permit)</li> </ul> <p><b>Child's Health Care Provider:</b></p> <ul style="list-style-type: none"> <li>Provide educational materials<sup>**</sup>, including dietary and environmental information (as resources permit)</li> <li>Monitor blood lead level with follow-up test</li> </ul>	<p>Within 3 days, as resources permit</p> <p>Within 3 months</p>
10 - 14	<p><b>Local Health Department Staff:</b></p> <ul style="list-style-type: none"> <li>Coordinate with health care provider to provide lead educational materials/lead poisoning prevention education, including dietary and environmental information.</li> <li>Perform telephone Childhood Lead Assessment<sup>†</sup></li> <li>Coordinate with health care provider to ensure follow-up blood lead testing is conducted and the blood lead level is not rising</li> </ul>	Within 30 days
15 - 19	<p><b>Local Health Department Staff:</b></p> <ul style="list-style-type: none"> <li>Coordinate with health care provider to provide lead educational materials/lead poisoning prevention education, including dietary and environmental information</li> <li>Perform in-home Childhood Lead Assessment</li> <li>Coordinate with health care provider to ensure follow-up blood lead testing is conducted and the blood lead level is not rising</li> </ul> <p>AND</p> <ul style="list-style-type: none"> <li>If the <b>follow-up</b> blood lead level is 15 (<math>\mu\text{g}/\text{dL}</math>) or higher, coordinate an in-home Environmental Investigation<sup>**</sup> by a Licensed Risk Assessor<sup>††</sup></li> </ul>	Within 2 weeks

# Contact Information

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## Lead 101 For Parents & Caregivers



**WHAT IS LEAD, AND WHY IS LEAD DANGEROUS?**

- Lead is a highly toxic metal that is found in the environment.
- **Lead is particularly dangerous for young children.** This is because they are still growing and developing. It is also dangerous for pregnant women. If a pregnant woman is exposed to lead it can harm the unborn child.
- Lead poisoning in children can lead to **lower intelligence quotient (IQ), hyperactivity (ADHD) and developmental, attention, and learning problems.**
- High blood lead levels can cause headaches, irritability, hearing loss, and abdominal pain.

**HOW ARE CHILDREN EXPOSED TO LEAD?**

Paint	Soil	Water	Consumer Products
Flaking and peeling paint in homes built before 1978	Lead gasoline and paint from older homes can settle in the soil	Lead may be in water in older homes where the pipes, fixtures, or solder may contain lead	Some toys, jewelry, imported spices, cosmetics, medicines, and old vinyl blinds, may include lead

There is **NO** safe blood lead level: Ask your doctor to test your child for lead in their blood at 12 months and 24 months.

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