

Lead Poisoning Prevention- Owners/Landlords

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We are a local community-based coalition that addresses the public health needs of the most vulnerable residents of Androscoggin County.

Healthy Androscoggin's 5 Goals

1. Support tobacco free lifestyles
2. Prevent substance misuse
3. Encourage physical activity
4. Promote healthy eating
5. Prevent childhood lead poisoning

Overview

1. What is Lead?
2. Risk Factors for Lead Poisoning
3. Testing Children for Lead Poisoning
4. Protecting Children from Lead Poisoning
 - What Tenants and Landlords can do
5. Questions

What is Lead?

- Lead is a metal that has had numerous uses since preindustrial times.
- In recent years, researchers have come to understand that there is no safe level of lead in the human body.
- Effective June 27, 2019, Maine law requires blood lead tests (screening) for all children at 1 and 2 years of age.
 - <https://www.maine.gov/dhhs/mecdc/environmental-health/eohp/lead/providers.shtml>



Sources of Persistent Lead in our Environment

- Lead in residential paint
 - Phased out from 1950-1978
- Lead in gasoline
 - Phased out by 1986
- Lead in connecting pipes
 - Phased out from 1920's to 1980's
- Lead solder in plumbing
 - Banned in 1986

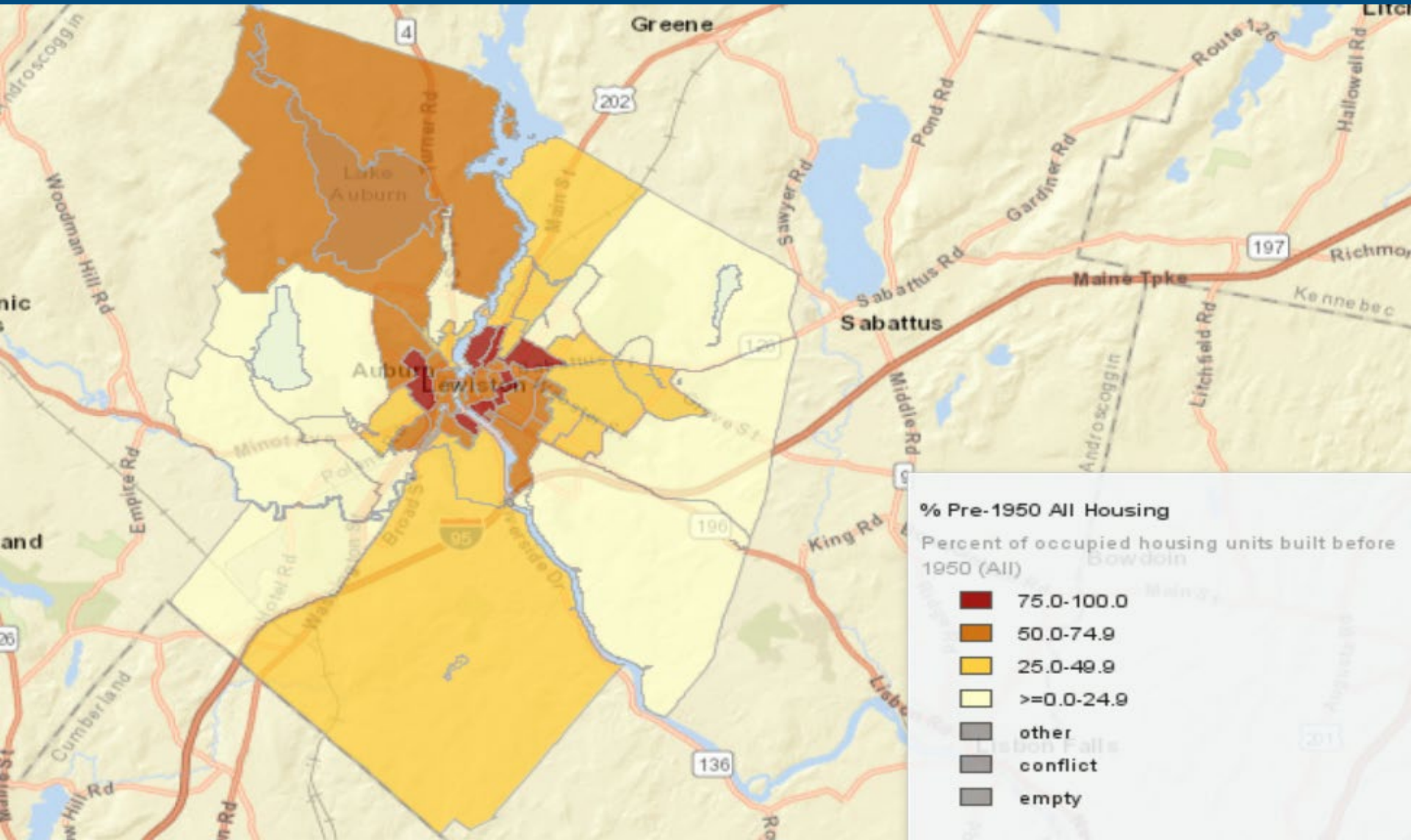


Most Hazardous Source of Lead:
PAINT



Where is Lead?

Lewiston/Auburn Pre-1950 Housing



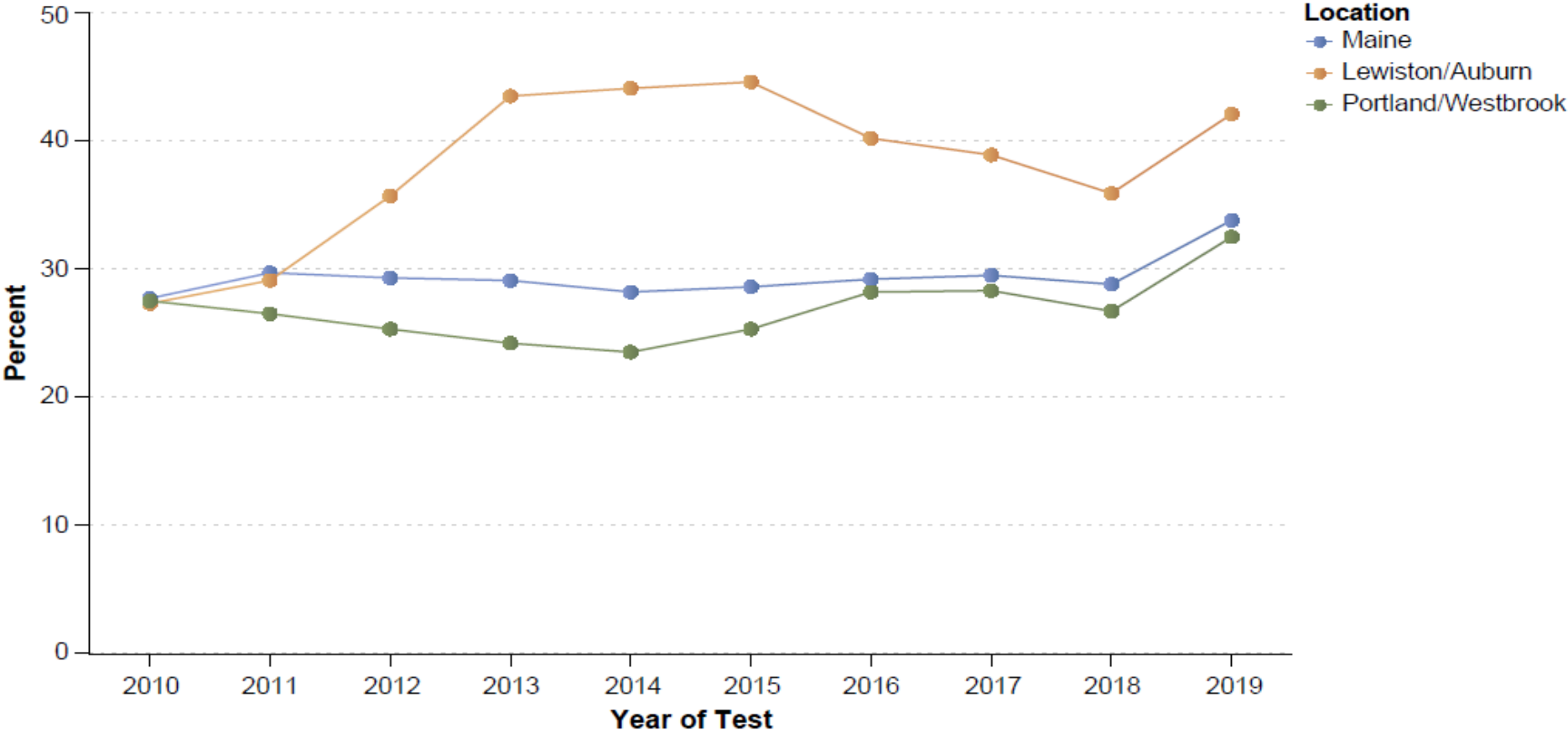
Data by Location

Children with a Blood Lead ≥ 5 ug/dL
by Town, Maine 2015-2019
Age: 0-<36 Months
Showing: First 10 Towns

Location	Number Screened	Number Confirmed ≥ 5 ug/dL	Number Unconfirmed 5-<10 ug/dL	Estimated Number ≥ 5 ug/dL Conf + $0.38^*Unconf$	Estimated Percent	95% CI
Lewiston	3,052	139	98	176	5.8	(5.0 - 6.7)
Portland	3,140	135	29	146	4.7	(3.9 - 5.5)
Auburn	1,426	56	52	76	5.3	(4.2 - 6.6)
Biddeford	1,683	39	51	58	3.5	(2.7 - 4.5)
Bangor	1,740	40	15	46	2.6	(1.9 - 3.5)
Sanford	1,587	33	32	45	2.9	(2.1 - 3.8)
Westbrook	839	36	6	38	4.6	(3.3 - 6.2)
Waterville	730	29	16	35	4.8	(3.4 - 6.6)
Augusta	983	24	27	34	3.5	(2.4 - 4.8)
Rockland	329	24	6	26	8.0	(5.3 - 11.5)

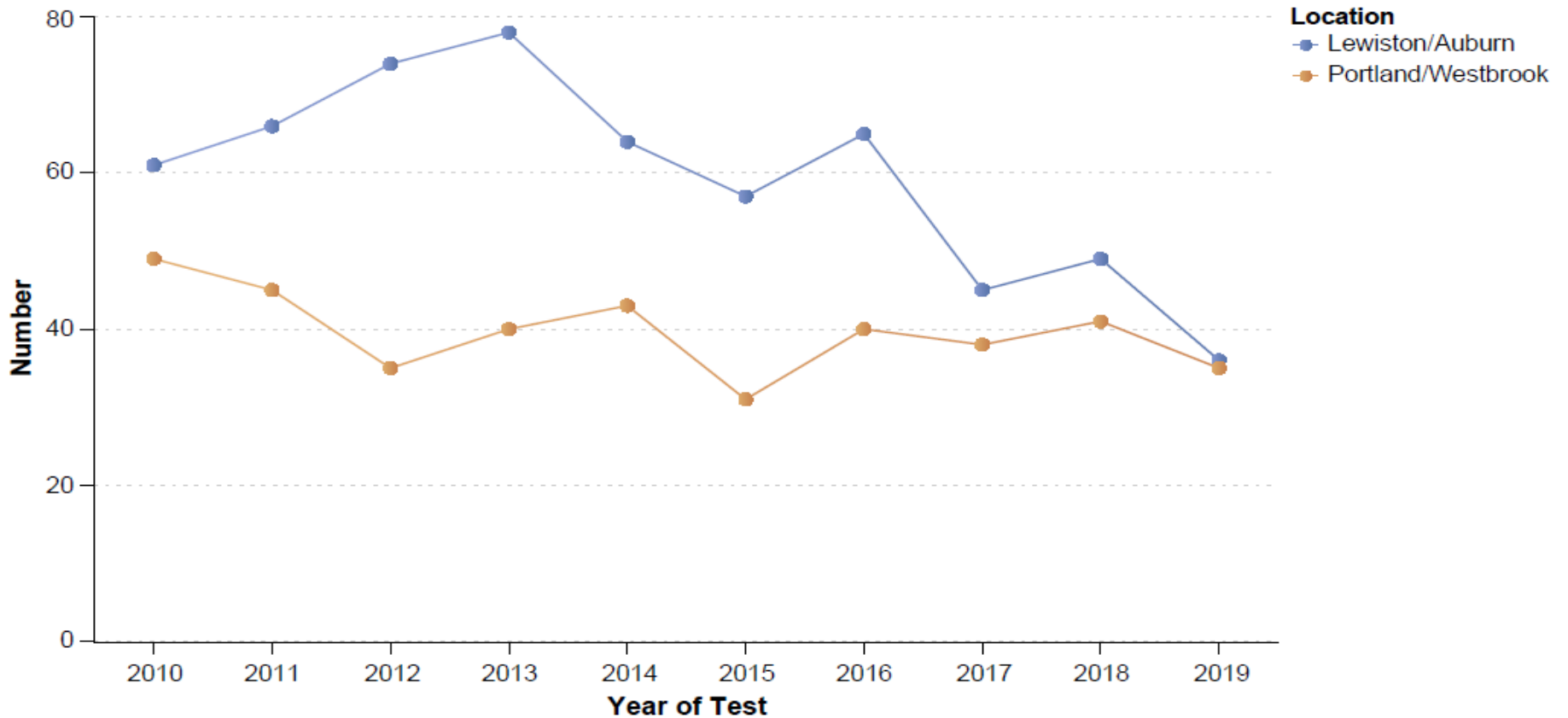
Screening Trends

Percent of Children with a Blood Lead Test
by High Risk Area, Maine 2010-2019
Age: 0-<36 Months



Blood Lead Trends

Estimated Number of Children with a Blood Lead ≥ 5 ug/dL
by High Risk Area, Maine 2010-2019
Age: 0-<36 Months



Risk Factors for Lead Poisoning

Where is leaded paint usually found?

- Windows
- Doors
- Trim
- Floors, if painted or used to be painted
- Stairs
- Exteriors



How is lead dust created?

- Paint in poor condition
- Friction on leaded surfaces
- Impacts to leaded surfaces
- Renovation



Renovations

- Can result in a massive release of lead dust
- Often done by the homeowner in single family homes
- Often live with ongoing renovation for months at a time



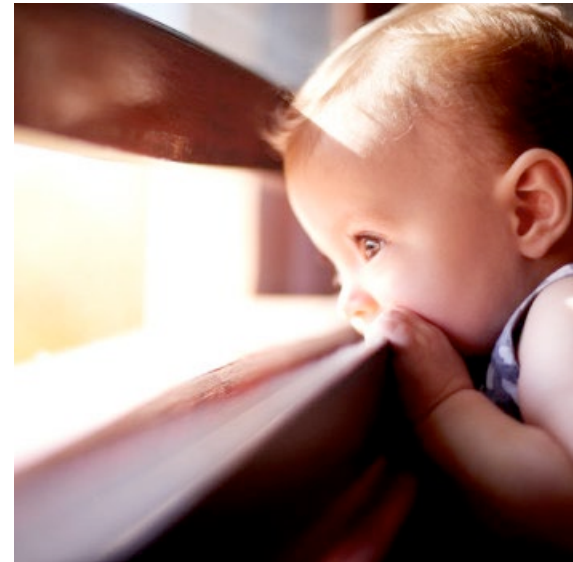
Which Children are at Risk for Lead Poisoning?

- Children living in homes built before 1950 are at highest risk for lead exposure.
- Deteriorated lead paint and resulting lead dust pose the greatest risk, but even intact paint may be a risk for some children.



Greatest Impact: Children <6

- Crawling on the floor, where lead dust settles
- Hand-to-mouth behavior
- Eating with hands
- Children eat, drink & breathe more (pound-per-pound) than adults
- Body systems less efficient at eliminating toxins
- Developing brain & nervous system



How lead effects childrens' health

Brain

Any exposure is linked to lowered **IQ, ADHD, hearing loss, and damaged nerves**. Acute exposures can cause convulsions, **loss of body movement, coma, stupor, hyperirritability, & death**.

Heart

Studies suggest that adults who endured lead poisoning as children had significantly higher risks of **high blood pressure** 50 years later.

Hormones

Lead disrupts levels of vitamin D, which can **impair cell growth, maturation, and tooth and bone development**.

Blood

Lead inhibits the body's ability to make hemoglobin, which can lead to anemia. This reduces oxygen flow to organs, causing **fatigue, lightheadedness, rapid heartbeat, dizziness, & shortness of breath**.

Stomach

Severe lead exposure can create intense **abdominal pain and cramping**.

Kidneys

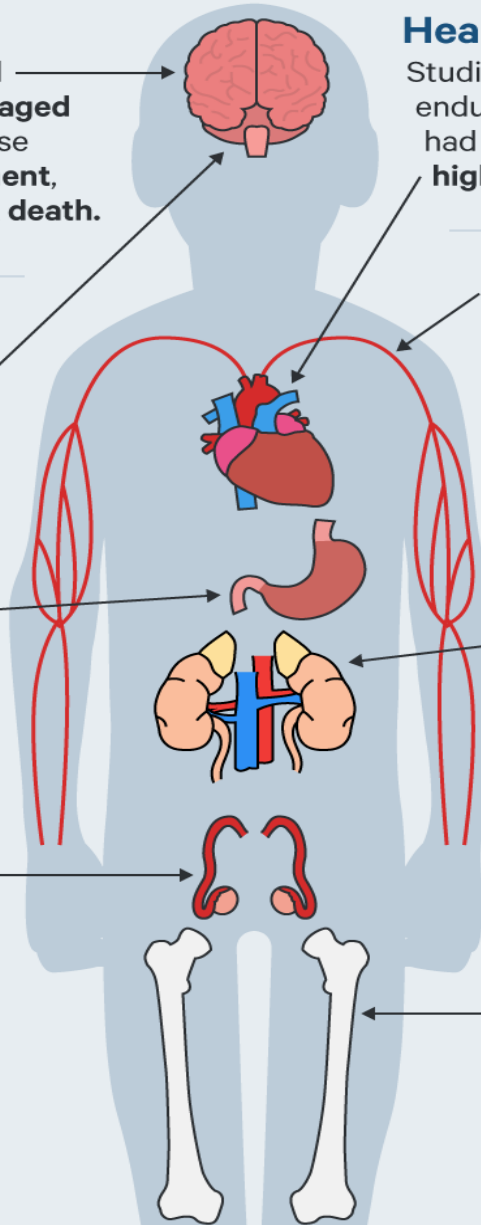
Chronic exposures can cause chronic inflammation, which can lead to **kidney failure, bloody urine, fever, nausea, vomiting, drowsiness, coma, weight gain, confusion, rash, and urinary changes**.

Reproductive System

A moderate exposure can not only **lower sperm count**, but also **damage them**. Chronic exposures can diminish the concentration, total count, and motility of sperm, though it's unclear how long these effects last after the exposure ends.

Bones

Lead may impair development and the health of bones, which can **slow growth in children**.



Testing Children for Lead Poisoning

Blood testing

- Rarely symptoms with lead poisoning
- Blood lead tests are the only way to know if a child has lead in their body
- **NEW!** Recent law change – Now all 1 & 2 year old Maine children are required to be tested for lead.

Determining Lead Exposure

- Lead exposure is determined through a blood lead level, measured in micrograms per deciliter ($\mu\text{g}/\text{dL}$)



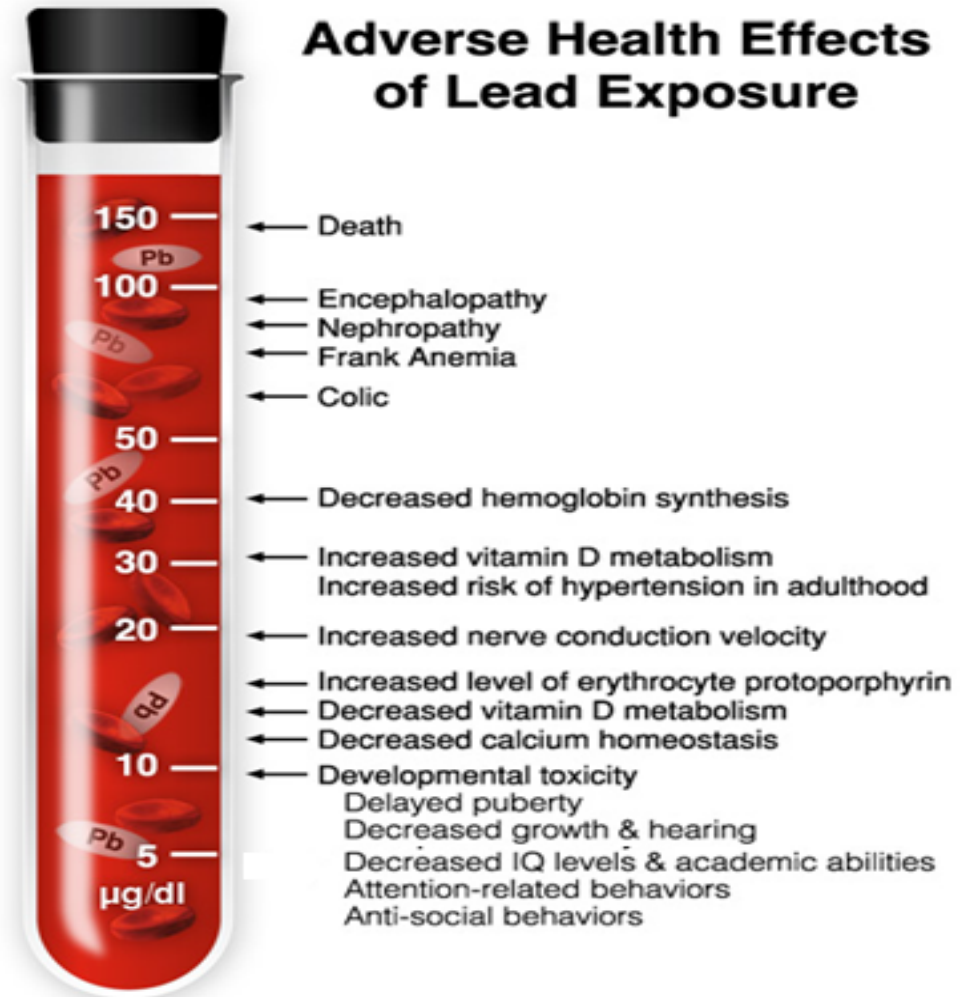
Venous (Arm) Test



Capillary (Finger) Test

Health Effects of Lead in Children

At higher levels of lead, children are at risk for additional health effects of lead, including seizures, coma and death at very high levels.



Protecting Children from Lead Poisoning

Did you know...

that half of all children poisoned by lead in Maine live in rental housing? In Portland, Bangor, Saco, Biddeford, Lewiston, Auburn and Sanford almost all children poisoned by lead **live in rental housing.**

By far, **dust from lead paint** is the most common cause of lead poisoning in children. Lead paint is found in most houses and apartment buildings built before 1950 and in some built before 1978.

What tenants can do

- Think about how to keep lead out of children's mouths
 - Pick up lead paint chips
 - Wash up lead dust
 - Create barriers so children can't touch leaded paint
 - Wash a child's hands, pacifiers, and toys to reduce exposure to lead dust
- Remove shoes before entering home or apartment
- Feed children on lead safe surface
- Don't let children play in bare soil near old buildings
- Prevent Take Home Dust
- Use wet cleaning strategies

What home owners/landlords can do

- Only use RRP/Abatement Contractors for any renovation or repair work
- Get RRP Certified yourself!
- <https://www.epa.gov/lead/lead-renovation-repair-and-painting-program>
- Go to lead trainings
- Contact the city about programs and information
- Know before you buy- ask for abatement status
- Prohibit smoking
- Avoid abatement and its consequences by providing safe and well maintained housing; help tenants understand how to care for their homes.

Best Practices for Landlords and Property Owners

1. Assume your property has lead paint if built before 1950. Test for lead if you are unsure.
2. Maintain painted surfaces properly. Look for chipping, peeling, or flaking paint every 6 months and at unit turnover.
3. In your lease, require that tenants tell you about peeling, chipping, or flaking paint. Address problems when notified.
4. If you need to renovate, repair or paint in your rental property, hire RRP certified contractor or get certified yourself.
5. Keep a record of anything you do to address lead paint in your rental property.

Questions?

Go to www.maine.gov/healthyhomes for information on testing, maintenance, looking for lead and RRP certified contractors.