

Childhood Lead Poisoning Prevention in Maine

Quick Guide



Key Messages for Parents

- Dust from lead paint in older homes is the most common cause of childhood lead poisoning.
- Children, especially those under 3, often put their hands and toys in their mouths.
- This makes it very easy for lead dust to get into, and damage, their growing bodies.
- The only way to know if a child has lead poisoning is to test them.

Health Effects of Lead Exposure

- Damage to the brain and nervous system
- Slowed growth and development
- Learning and behavior problems
- Speech and hearing problems

Leading to:

- Lower IQ
- Decreased ability to pay attention
- Underperformance in school

Ways to Limit Exposure

- Keep children away from peeling or chipping paint.
- Wash children's hands before eating and sleeping.
- Feed children at a table or in a highchair and not on the floor.
- Wash toys once a week and keep toys away from areas with chipping paint.
- Clean floors, windowsills, and tabletops with wet mops or rags once a week.
- Cover chipping and peeling paint to keep lead from spreading to surrounding areas.
- Avoid sanding and scraping paint in old homes.

Primary Prevention Spotlight

- Providers and families may request a free, do-it-yourself lead dust test kit to identify lead dust in a child's home before a child becomes poisoned.
- These test kits are ideal for families who live in pre-1950 housing, and that have infants (<1 year old), are expecting a new baby, or have a child with a blood lead level <3.5 µg/dL.
- To order a test kit call 207-287-4311 or visit <https://bit.ly/3DcAuSp>

Maine CDC Pediatric Blood Lead Testing Guidelines

Identifying Children with Lead Poisoning



Maine CDC provides services based on venous lead levels ≥ 3.5 $\mu\text{g}/\text{dL}$.

- The initial blood lead screening test may be either a venous or capillary sample.
- An elevated capillary sample (≥ 3.5 $\mu\text{g}/\text{dL}$) must be confirmed with a venous sample.

Age	Blood Lead Testing Requirements
1 year (9 to <18 months)	Mandatory under Maine law
2 years (18 to <36 months)	Mandatory under Maine law
3-5 years (36 to 72 months)	<p>For children covered by MaineCare:</p> <ul style="list-style-type: none"> • If not previously tested: Mandatory blood lead test • If previously tested: Recommend blood lead test yearly unless risk assessment questionnaire is negative. <p>For children not covered by MaineCare:</p> <ul style="list-style-type: none"> • Recommend blood lead test yearly unless risk assessment questionnaire is negative.

Risk Assessment Questionnaire – Identifies at-risk children under 6 years of age

If a child's parent or guardian answers 'yes' or 'don't know' to any of the questions below, test the child for lead.

- Does your child spend more than 10 hours per week in any house built before 1950?
- Does your child spend more than 10 hours per week in any house built before 1978 that was renovated or remodeled within the last 6 months?
- Does your child spend time with an adult whose job exposes him/her to lead? (i.e., construction, painting)
- Does your child have a sibling or playmate that has been diagnosed with lead poisoning?

Test at-risk populations annually through 5 years of age, and as clinically indicated, even if the risk assessment questionnaire is negative.

At-risk populations:

- Recent immigrants or international adoptees
- Children whose parents immigrated to the U.S.
- Children with pica behavior
- Children with neurodevelopmental disabilities or conditions such as autism that put them at higher risk for hand-to-mouth behavior
- Children entering foster care

Test all recently arrived refugee children.

- Perform a blood lead test for children 6 months to 16 years upon entry to the U.S.
- Within 3-6 months of initial test, conduct follow-up test for children 6 months to 6 years, regardless of initial test result.
- Consult U.S. CDC Recommendations for Lead Poisoning Prevention in Newly Arrived Refugee Children <https://bit.ly/3RCDr31>

Recommended Confirmation and Follow-up Schedule

Clinical Actions for Pediatric Blood Lead Levels ≥ 3.5 $\mu\text{g}/\text{dL}$



- The pediatric blood lead reference level is 3.5 $\mu\text{g}/\text{dL}$. Confirm capillary screening test results ≥ 3.5 $\mu\text{g}/\text{dL}$ with a venous test.
- The sooner providers confirm capillary blood lead tests with venous specimens, the sooner Maine CDC can initiate services to identify and eliminate the sources of their lead exposure.
- The higher the capillary test result, the more urgent the need for a timely confirmatory venous test.
- Confirmatory testing is not required when an initial screening test is performed using a venous sample.

Capillary Blood Lead Level	Confirm with Venous Test
3.5 - <10 $\mu\text{g}/\text{dL}$	As soon as possible, but no later than 3 months
10 - <20 $\mu\text{g}/\text{dL}$	As soon as possible, but no later than 1 month
20 - <45 $\mu\text{g}/\text{dL}$	As soon as possible, but no later than 2 weeks
≥ 45 $\mu\text{g}/\text{dL}$ Urgent Action Needed	Immediately, but no later than 48 hours (place order as STAT)

Venous Blood Lead Level	Follow-up Venous Test Schedule	Recommended Actions Based on Confirmed Venous BLL
3.5 - <10 $\mu\text{g}/\text{dL}$	Within 3 months*	<ul style="list-style-type: none"> • Complete risk assessment questionnaire to identify potential sources of exposure • Educate on key messages (see Quick Guide page) • Inform patient that Maine CDC will be reaching out
10 - <20 $\mu\text{g}/\text{dL}$	Within 2 months*	<ul style="list-style-type: none"> • Items above plus: • Ensure child does not have iron deficiency • Check child's development to ensure appropriate milestones are being met
20 - <45 $\mu\text{g}/\text{dL}$	Within 1 month*	<ul style="list-style-type: none"> • Items above plus: • Consider performing an abdominal x-ray to check for lead-based paint chips and other radiopaque foreign bodies
≥ 45 $\mu\text{g}/\text{dL}$ Urgent Action Needed	Immediately (place order as STAT)	<ul style="list-style-type: none"> • Items above plus: • Perform complete history and physical exam including detailed neurological exam • Urgent consult with Northern New England Poison Center: 1-800-222-1222

*You may elect to repeat blood lead tests on children with an elevated venous blood lead level within 1 month to ensure that the blood lead level is not rising. Consult U.S. CDC guidelines: <https://bit.ly/3QyeaFZ>

Maine CDC's Public Health Response

For Confirmed Venous Blood Lead Levels ≥ 3.5 $\mu\text{g}/\text{dL}$



Maine CDC Childhood Lead Poisoning Prevention Unit Response for Children (Ages 0 - <72 months) With Venous Lead Levels	3.5 - <5	5 - <10	10 - <45	≥ 45
Offer free home lead dust test and if dust levels are high, provide environmental investigation and case management services described below	X			
Conduct environmental investigation of the child's home to identify and remove lead hazards		X	X	X
Provide case management services to: discuss outcomes of investigation, prevent further exposure, and monitor blood lead level		X	X	X
Offer home visit from a public health nurse		As Needed	X	X
CDS referral (lead poisoning is a qualifying diagnosis for CDS)		X	X	X
Coordinate with providers and Northern New England Poison Center on urgent evaluation for chelation therapy and investigation of the child's home environment for lead hazards				X

Additional Resources	
For questions or concerns about blood lead testing, talk to the physician or a nurse on our health team.	207-287-4311
Call the State of Maine Health and Environmental Testing Laboratory to order free blood collection supplies and mailers.	207-287-2727
Download U.S. CDC's factsheet with steps for collecting fingerstick blood samples.	https://bit.ly/3D7Y1E6
Learn more about using the Blood Lead Module in ImmPact to identify patients needing a blood lead test.	https://bit.ly/3RTZamC
Order Maine lead poisoning prevention educational materials for your office.	ehu@maine.gov