# Management of Lead Poisoning

This guideline applies to children susceptible to lead poisoning and includes assessment, testing, treatment, and education.

<table>
<thead>
<tr>
<th>Eligible Population</th>
<th>Key Components</th>
<th>Recommendation</th>
<th>Frequency</th>
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</table>
| **Children Ages 0-6** | Screening & Testing | • Risk assessment for lead exposure and blood test for children at high risk. Child is considered high risk if any of the following apply: (1) child resides in zip code or other geographic area identified as high risk by Michigan Department of Community Health (MDCH); (2) child is covered by or eligible for Medicaid or enrolled in WIC; (3) parent/guardian answers “yes” or “don’t know” to any question in the MDCH Lead Poisoning Questionnaire; (4) child between ages of 6 months and 16 years is a newly arrived refugee or internationally adopted.  
• A capillary blood test is acceptable for an initial test. Confirm with venous sample if high.  
• Medical history: assess developmental progress with referral as needed.  
• Physical exam: observe for indications of language delays or neurobehavioral/cognitive problems. | • Once between 6 and 12 months and again at 24 months  
• Once for children ages 36-72 months if not tested previously. |

| Therapeutic Intervention | | • Eliminate environmental hazards. Determine the source of lead exposure. Collaborate with local lead poisoning programs which provide home inspections.  
• Refer parent to the local health department (most health departments will have programs to assist with home inspection, source identification and remediation).  
• Consider changes in diet: lead absorption increases with iron, calcium deficiencies.  
• Continue diagnostic testing (see below).  
• Chelation therapy for blood lead levels (BLL) ≥ 45 mg/dL. | |

<table>
<thead>
<tr>
<th>Diagnostic Testing</th>
<th></th>
<th>If screening test is...</th>
<th>Obtain venous test in:</th>
<th>If screening test is...</th>
<th>Obtain venous test in:</th>
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</thead>
<tbody>
<tr>
<td>10 -19 mg/dL</td>
<td>3 months</td>
<td>60-69 mg/dL</td>
<td>24 hours</td>
<td></td>
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<tr>
<td>20-44 mg/dL</td>
<td>1 week** – 1 month</td>
<td>≥ 70 mg/dL</td>
<td>immediately</td>
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<tr>
<td>45-59 mg/dL</td>
<td>48 hours (Report all high BLL’s to your local health department)</td>
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</table>
* Consider more frequent rescreening for children with BLLs approaching 10µg/dL.  
** The higher the screening BLL, the more urgent the need for a diagnostic test.  

| Patient Education | | • All children: Offer anticipatory guidance regarding: hazards of lead paint & risk reduction, exposure to lead from home remedies, occupational sources, and unsafe home renovation methods; importance of washing hands before each meal, adequate intake of calcium and iron to reduce absorption, pregnancy and lead.  
• For children with BLL ≥ 5 mg/dL: explain child’s BLL and meaning, potential adverse reactions, sources of exposure, hazards of improper removal, importance of wet vs. dry cleaning, need for follow-up BLL testing, importance of nutrition to reduce absorption, results of environmental inspection; chelation therapy overview, if needed. | During prenatal care; each well-child visit from age 3 months to 2 years |

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**Education resources:** National Lead Information Center [www.epa.gov](http://www.epa.gov), CDC recommendations: [www.cdc.gov](http://www.cdc.gov)

**SOURCES:**  
• Michigan Department of Community Health Diagnostic Screening/Testing Advisory Committee recommendations  
• Centers for Disease Control. Advisory Committee on childhood Lead Poisoning Prevention. *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention.*  
• American Academy of Pediatrics Committee on Practice and Ambulatory Medicine, *Recommendations for Preventive Pediatric Health Care.*  