Management of Lead Poisoning

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

Eligible Population	Key Components	Recommendation	Frequency
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. • 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.	
	Diagnostic Testing	If screening test is... / Obtain venous test in: / If screening test is... / Obtain venous test in: 10*-19 mg/dL / 3 months / 60-69 mg/dL / 24 hours 20-44 mg/dL / 1 week** – 1 month / ≥ 70 mg/dL / immediately 45-59 mg/dL / 48 hours (*Report all high BLL's to your local health department)* * 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.	Diagnostic testing required for capillary blood lead levels ≥ 10 mg/dL.
	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 ≥ 10 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

Education resources: National Lead Information Center www.epa.gov. CDC recommendations: www.cdc.gov Reviewed: 7/2011 Revised: 2009; Approved 08/2011

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.*● CDC Advisory Committee on Childhood Lead Poisoning Prevention. *Interpreting and Managing Blood Lead Levels < 10µg/dL in Children and Reducing Childhood Exposures to Lead*: 2007. ●American Academy of Pediatrics Committee on Practice and Ambulatory Medicine, *Recommendations for Preventive Pediatric Health Care.* ●American Academy of Pediatrics Committee on Environmental Health. *Lead Exposure in Children: Prevention, Detection and Management*: 2005.