

Missouri Guidelines for the Assessment and Management of Childhood Lead Exposure (For Children up to 72 Months of Age)

1. Complete/update Lead Risk Questionnaire and provide lead education with parents/guardians at least ANNUALLY for children under 72 months. Prompt Blood Lead testing is required for any “yes” risk factors and “unknown” responses.
2. Recommend testing to all children under 48 months annually and provide lead education at least annually for children under 72 months.
3. Test ALL children receiving Medicaid benefits, at a minimum, at ages 12 and 24 months, regardless of the response to the lead risk questionnaire. If target ages are missed, catch up at the earliest opportunity. (Section 1902(a)(43)(A) of the Social Security Act (the Act) and Medicaid Manual section 5010; CMCS Informational Bulletin dated 11/30/2016)
4. Increased risk factors, such as increased mouthing behaviors or increased mobility, may require additional blood lead testing. Greater exposure to lead in warmer months may also necessitate increased testing.
5. When a child has a confirmed VENOUS BLL of ≥ 3.5 $\mu\text{g}/\text{dL}$, consider testing other members of the residence/family, particularly pregnant women and children under the age of 72 months.
6. Medical history and health forms for daycares, head starts, and schools should include all blood lead testing dates and results. BLL testing dates and results are to be a part of the child’s permanent medical record.

Recommended Blood Lead Testing Schedule and Actions Based on Blood Lead Level (BLL) ** LAB is to report/Fax ALL BLL’s to DHSS: 573-526-6946
or email to: DHSS.leadresults@health.mo.gov (including LeadCare Analyzers®)

Schedule to Obtain CONFIRMATORY VENOUS Blood Lead Test		Schedule to Obtain FOLLOW-UP VENOUS Blood Lead Testing		
CAPILLARY BLL micrograms (μg)/dL	Time to VENOUS Confirmation Testing	VENOUS BLL micrograms (μg)/dL	EARLY VENOUS Follow-up Testing (2 - 4 tests after initial elevation)	LATER VENOUS Follow-up Testing (After BLL declining)
$\geq 3.5 - 9$ $\mu\text{g}/\text{dL}$ <small>**Labs Report within 3 days</small>	1–3 months	$\geq 3.5 - 9$ $\mu\text{g}/\text{dL}$ <small>**Labs Report within 3 days</small>	3 months*	6–9 months
10 – 44 $\mu\text{g}/\text{dL}$ <small>**Labs Report within 3 days</small>	1 week–1 month	10 – 19 $\mu\text{g}/\text{dL}$ <small>**Labs Report within 3 days</small>	1–3 months*	3–6 months
45 – 59 $\mu\text{g}/\text{dL}$ <small>**Fax BLL result and call DHSS*** IMMEDIATELY</small>	Within 48 hours (Request STAT VENOUS lab draw <u>and</u> analysis)	20 – 24 $\mu\text{g}/\text{dL}$ <small>**Labs Report within 3 days</small>	1–3 months*	1–3 months
60 – 69 $\mu\text{g}/\text{dL}$ <small>**Fax BLL result and call DHSS*** IMMEDIATELY</small>	Within 24 hours (Request STAT VENOUS lab draw <u>and</u> analysis)	25 – 44 $\mu\text{g}/\text{dL}$ <small>**Labs Report within 3 days</small>	2 weeks–1 month*	1 month
≥ 70 $\mu\text{g}/\text{dL}$ <small>**Report BLL result and call DHSS*** IMMEDIATELY</small>	IMMEDIATELY as emergency test (Request STAT VENOUS lab draw <u>and</u> analysis) <i>Note that STAT venous Blood Lead Analysis may not be readily available in all areas of the state particularly during weekends, evenings and nights. Contact DHSS for assistance if needed.</i>	≥ 45 $\mu\text{g}/\text{dL}$ <small>**Fax BLL result and call DHSS*** IMMEDIATELY</small>	45 - 69: STAT Venous Lead Test and receipt of result before chelation administered; at the end of chelation; 7 days and 21 days* after chelation. ≥ 70 : STAT Venous Lead Test blood draw before chelation (but chelation should commence prior to receipt of result); at the end of chelation; 7 days & 21 days* after chelation.	As clinically indicated, depending on the level, date of chelation and child’s individual situation.
<i>The higher the blood lead level on the capillary test, the more urgent the need for confirmatory venous testing.</i>		<i>*Healthcare providers or case managers may choose to repeat VENOUS blood lead tests within shorter intervals to ensure that the Blood Lead Level is not rising more quickly than anticipated. (i.e. when child’s mobility or hand to mouth behaviors increase)</i>		
Please Note: The following actions are NOT recommended at any Blood Lead Level		<ul style="list-style-type: none"> • Searching for gingival lead lines • Testing of hair, teeth or nails for lead 	<ul style="list-style-type: none"> • Radiographic imaging of long bones • X-ray fluorescence of long bones 	<ul style="list-style-type: none"> • Evaluation of renal function (except during chelation with EDTA) • Testing of neurophysiologic function
***Contact DHSS Lead Program		573-751-6102 (Main Line) Email: Leadsafe@health.mo.gov		

Updated: 9.24.24 Lit # 319



MO DHSS Recommended Actions Based on **VENOUS Confirmed Blood Lead Level (BLL) $\mu\text{g}/\text{dL}$ = micrograms per deciliter**

	<3.5 $\mu\text{g}/\text{dL}$	3.5–9 $\mu\text{g}/\text{dL}$	10–19 $\mu\text{g}/\text{dL}$	20–44 $\mu\text{g}/\text{dL}$	45–69 $\mu\text{g}/\text{dL}$ <i>Chelation Should Be Considered!</i>	$\geq 70 \mu\text{g}/\text{dL}$ <i>Chelation is Needed Immediately!</i>
PCP	<p>Assess</p> <ul style="list-style-type: none"> Nutrition Developmental milestones <p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments <p>Schedule:</p> <ul style="list-style-type: none"> Follow-up age appropriate blood lead testing <p><i>***Children under 12 months, consider need to retest as hand to mouth behaviors and mobility increase***</i></p>	<p>Assess</p> <ul style="list-style-type: none"> Nutrition Developmental milestones <p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments <p>Schedule:</p> <ul style="list-style-type: none"> Follow-up blood lead testing (see reverse) <p>Discuss</p> <ul style="list-style-type: none"> Child's environment with parents to identify potential sources of lead exposure Lead Case Manager will contact family 	<p>Assess</p> <ul style="list-style-type: none"> Nutrition Developmental milestones <p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments <p>Schedule:</p> <ul style="list-style-type: none"> Follow-up blood lead testing (see reverse) <p>Discuss</p> <ul style="list-style-type: none"> Child's environment with parents to identify potential sources of lead exposure Lead Case Manager will contact family <p>Consider lab work to assess iron status</p>	<p>Perform:</p> <ul style="list-style-type: none"> Complete history Physical exam Neuro-developmental assessment Nutritional assessment <p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments <p>Schedule:</p> <ul style="list-style-type: none"> Follow-up blood lead testing (see reverse) <p>Discuss</p> <ul style="list-style-type: none"> Child's environment with parents to identify potential sources of lead exposure Lead Case Manager will contact family <p>Order Lab work:</p> <ul style="list-style-type: none"> Iron status Hemoglobin or hematocrit <p>Order abdominal X-ray with bowel decontamination if indicated</p>	<p>Consider:</p> <ul style="list-style-type: none"> Prompt administration of IV and/or oral chelation therapy Consult with PEHSU (contact information on reverse) Hospitalization for duration of IV or oral chelation and follow-up period if lead-safe (home) environment cannot be assured DO NOT discharge home unless home is known to be lead-safe (see Lead Risk Assessor section) <p>Perform:</p> <ul style="list-style-type: none"> Complete history Physical exam Neurological exam Neuro-developmental assessment Nutritional assessment <p>Inform parent/guardian:</p> <ul style="list-style-type: none"> State licensed Lead Risk Assessor will schedule home visit within 48 hours Lead case managers will schedule a home visit <p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments <p>Discuss</p> <ul style="list-style-type: none"> Child's environment with parents to identify potential sources of lead exposure <p>Schedule:</p> <ul style="list-style-type: none"> Follow-up blood lead testing (see reverse) <p>Order Lab work:</p> <ul style="list-style-type: none"> Repeat VENOUS BLL (Draw and analyze STAT) Iron status Hemoglobin or hematocrit <p>Order abdominal X-ray with bowel decontamination if indicated</p>	<p>Arrange:</p> <ul style="list-style-type: none"> IMMEDIATE hospitalization at a pediatric hospital facility with chelation expertise Prompt administration of IV chelation therapy Consult with PEHSU (contact information on reverse) IV chelation may be followed with oral chelation if indicated DO NOT discharge home unless home is known to be lead-safe (see Lead Risk Assessor section) <p>Perform:</p> <ul style="list-style-type: none"> Complete history Physical exam Neurological exam Neuro-developmental assessment Nutritional assessment <p>Inform parent/guardian:</p> <ul style="list-style-type: none"> State licensed Lead Risk Assessor will schedule home visit within 24-48 hours Lead case managers will schedule a home visit <p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments <p>Discuss</p> <ul style="list-style-type: none"> Child's environment with parents to identify potential sources of lead exposure <p>Schedule:</p> <ul style="list-style-type: none"> Follow-up blood lead testing (see reverse) <p>Order Lab work:</p> <ul style="list-style-type: none"> Repeat VENOUS BLL (Draw and analyze STAT) Iron status Hemoglobin or hematocrit <p>Order abdominal X-ray with bowel decontamination if indicated</p>
Lead Case Manager (LPHA or Health Plan)	Case management NOT offered by public health at this low level	<p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments <p>Schedule:</p> <ul style="list-style-type: none"> Follow-up age appropriate blood lead testing 	<p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments <p>Schedule:</p> <ul style="list-style-type: none"> Home visit (recommended ≥ 15 mcg/dL) Follow-up age appropriate blood lead testing <p>Refer to DESE for BLL > 10 $\mu\text{g}/\text{dL}$</p>	<p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments <p>Schedule:</p> <ul style="list-style-type: none"> Home visit (recommended) Follow-up age appropriate blood lead testing <p>Refer to DESE for BLL > 10 $\mu\text{g}/\text{dL}$</p>	<p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments Healthcare Provider with resources: PEHSU/DHSS Social services referrals as indicated <p>Schedule:</p> <ul style="list-style-type: none"> Home visit (required) Follow-up age appropriate blood lead testing <p>Instruct:</p> <ul style="list-style-type: none"> Parent/guardian to promptly remove or keep child away from any known or potential lead-contaminated environment/hazard <p>Refer to DESE for ongoing developmental monitoring programs throughout grade school First Steps: 866-583-2392</p>	<p>Provide:</p> <ul style="list-style-type: none"> Nutritional counseling on calcium, iron and vitamin C intake Education about common sources of lead exposure and lead-safe environments Healthcare Provider with resources: PEHSU/DHSS Social services referrals as indicated <p>Schedule:</p> <ul style="list-style-type: none"> Home visit (required) Follow-up age appropriate blood lead testing <p>Instruct:</p> <ul style="list-style-type: none"> Parent/guardian to promptly remove or keep child away from any known or potential lead-contaminated environment/hazard <p>Refer to DESE for ongoing developmental monitoring programs throughout grade school First Steps: 866-583-2392</p>
Lead Risk Assessor	Lead Risk Assessment not offered	<ul style="list-style-type: none"> Provide verbal or written education May offer environmental risk assessment depending on jurisdiction 	<ul style="list-style-type: none"> Provide verbal and written education Lead Risk Assessment and lead hazard reduction REQUIRED 	<ul style="list-style-type: none"> Provide verbal and written education Lead Risk Assessment and lead hazard reduction REQUIRED 	<ul style="list-style-type: none"> Schedule Risk Assessment within 48 hours Provide verbal and written education Lead Risk Assessment and lead hazard reduction REQUIRED Provide parent/guardian with lead hazard reduction work plan Lead Risk Assessor "clearance" visit required following completion of work plan and before child returns to the home. Inform parent/guardian lead hazard reduction is the financial responsibility of the property owner 	<ul style="list-style-type: none"> Schedule Risk Assessment within 24-48 hours Provide verbal and written education Lead Risk Assessment and lead hazard reduction REQUIRED Provide parent/guardian with lead hazard reduction work plan Lead Risk Assessor "clearance" visit required following completion of work plan and before child returns to the home. Inform parent/guardian lead hazard reduction is the financial responsibility of the property owner
Chelation	NOT indicated	NOT indicated	NOT indicated	NOT indicated	Chelation Should be Considered Consult PEHSU – (800) 421-9916 Or Missouri Poison Control Center – (800) 222-1222	Chelation Advised Consult PEHSU – (800) 421-9916 Or Missouri Poison Control Center – (800) 222-1222