

# Childhood Blood Lead Case Management Guidelines for Minnesota

REVISED 2025

## MDH Lead Contacts

- Call 651-201-4892 for questions regarding:
  - elevated blood lead case management
  - guidance on blood lead testing, treatment, and follow-up
- Call 651-201-4919 or email [health.bloodleadresults@state.mn.us](mailto:health.bloodleadresults@state.mn.us) for questions regarding:
  - reporting blood lead results to MDH
  - incoming/outgoing blood lead results
- Fax number to send blood lead results: 800-388-9389
- Mailing address: MN Department of Health (MDH), Health Risk Intervention Unit, P.O. Box 64975, St. Paul, MN 55164-0975

## Resources

- MDH [Lead Fact Sheets and Brochures](http://www.health.state.mn.us/communities/environment/lead/factsheets/index.html) ([www.health.state.mn.us/communities/environment/lead/factsheets/index.html](http://www.health.state.mn.us/communities/environment/lead/factsheets/index.html))
- MDH [Blood Lead Level Guidelines](http://www.health.state.mn.us/communities/environment/lead/prof/guidelines.html) ([www.health.state.mn.us/communities/environment/lead/prof/guidelines.html](http://www.health.state.mn.us/communities/environment/lead/prof/guidelines.html))
- MDH [Reporting Blood Lead Test Results](http://www.health.state.mn.us/communities/environment/lead/reporting.html) ([www.health.state.mn.us/communities/environment/lead/reporting.html](http://www.health.state.mn.us/communities/environment/lead/reporting.html))
- MDH [Child and Teen Checkups Lead Testing Factsheet](http://www.health.state.mn.us/docs/people/childreneyouth/ctc/lead.pdf) ([www.health.state.mn.us/docs/people/childreneyouth/ctc/lead.pdf](http://www.health.state.mn.us/docs/people/childreneyouth/ctc/lead.pdf))

## Referrals

Referrals should be made to services as appropriate. See the full guidelines for details at [MDH Lead Poisoning Prevention: Guidelines \(www.health.state.mn.us/communities/environment/lead/prof/guidelines.html\)](http://www.health.state.mn.us/communities/environment/lead/prof/guidelines.html). Types of referrals to consider are:

- Medical assistance
- Housing resources
- Legal assistance
- Learning and development resources
- Nutritional resources
- Other local public health programs

## Sources of Lead

Case managers should be aware of common sources of lead when interacting with families. General categories of sources of lead are below. See full case management guidelines for more information.

- Paint and dust
- Renovation
- Soil and water
- Lead-related occupations and hobbies
- Spices, candy, game meat, other food
- Imported or handmade pottery, ceramics, or other cookware
- Cosmetics and religious powders, traditional or alternative remedies
- Exposures that occurred in another country
- Pica behavior
- Jewelry, amulets, toys, keys, fishing sinkers, chalk, and furniture

## Case Management Guidelines: Blood Lead Tests on Capillary Samples

BLLs (µg/dL)	ACTIONS BASED ON RESULTS OF BLOOD LEAD TESTS ON CAPILLARY SAMPLES
Capillary < 3.5	<ul style="list-style-type: none"> <li>No local public health (LPH) outreach necessary. LPH should provide lead prevention education if questions arise.</li> </ul>
Capillary ≥ 3.5	<p>Perform the following within 1 week, or sooner for higher blood lead levels:</p> <ul style="list-style-type: none"> <li>Contact the family with the recommendation for venous confirmation within:                             <ul style="list-style-type: none"> <li>1 month for Blood Lead Levels (BLLs) 3.5–9.9 µg/dL</li> <li>1 week for BLLs 10.0–44.9 µg/dL</li> <li>48 hours for BLLs 45.0–59.0 µg/dL</li> <li>Immediately for BLLs ≥ 60 µg/dL.</li> </ul> </li> <li>If feasible, contact the medical care provider regarding venous confirmation, especially for higher blood lead levels.                             <ul style="list-style-type: none"> <li>Offer the medical care provider MDH’s screening &amp; treatment guidelines (link under “Resources”) if needed.</li> <li>If a clinic is unable to do a venous draw, they should refer the child to a lab or facility able to perform a venous draw.</li> </ul> </li> <li>Venous confirmation is required for an environmental risk assessment (an environmental inspection).</li> </ul>

**CASE MANAGEMENT GUIDELINES CONTINUE ON NEXT PAGE**

## Case Management Guidelines: Blood Lead Tests on Venous Samples

BLLs (µg/dL)	ACTIONS BASED ON RESULTS OF BLOOD LEAD TESTS ON VENOUS SAMPLES
Venous < 3.5	<ul style="list-style-type: none"> <li>▪ No LPH outreach necessary. LPH should provide lead prevention education if questions arise.</li> </ul>
Venous 3.5–4.9	<p>Perform the following within 1 week:</p> <ul style="list-style-type: none"> <li>▪ Provide educational materials to the family. A link to MDH lead fact sheets is listed above under Resources.</li> <li>▪ Contact the family with the recommendation for a repeat test on a venous sample every 3 months until BLL &lt; 3.5 µg/dL. <ul style="list-style-type: none"> <li>▪ After venous confirmation, venous follow-up tests are preferred due to accuracy, but capillary results are accepted.</li> <li>▪ Blood lead levels should continue to be monitored until they are less than 3.5 µg/dL.</li> <li>▪ As resources allow, contact the medical care provider regarding the need for follow-up venous testing if venous follow-up not completed within three months.</li> </ul> </li> <li>▪ Communicate with MDH or health care providers regarding follow-up and repeat tests, sources of lead, testing of other household members, or other concerns as needed.</li> </ul>
Venous 5.0–9.9	<p>In addition to the steps described above for lower blood lead levels on venous samples, perform the following within 1 week:</p> <ul style="list-style-type: none"> <li>▪ Contact the family with the recommendation for a repeat test on a venous sample every 3 months until BLL &lt; 3.5 µg/dL. <ul style="list-style-type: none"> <li>▪ Contact the medical care provider regarding the need for follow-up venous testing if venous follow-up not completed within three months. Offer the medical care provider MDH’s treatment guidelines if needed.</li> </ul> </li> <li>▪ Complete an assessment of medical, environmental, nutritional, and developmental needs. Make referrals as appropriate.</li> <li>▪ MDH and/or LPH will attempt to conduct an environmental risk assessment and provide education in the home within 20 working days of receiving the qualifying blood lead level.</li> <li>▪ Through the risk assessment, the suspected lead sources will be identified. Lead correction orders will be issued for housing-based lead sources, and recommendations will be given for other lead sources. <ul style="list-style-type: none"> <li>▪ In collaboration with the assessing agency, LPH must ensure that in-home health education is provided through a home visit and/or risk assessment.</li> <li>▪ Communicate with the risk assessor assigned to the case to determine whether a home visit will be provided by LPH or whether the risk assessor will be providing home health education. <ul style="list-style-type: none"> <li>▪ Home visits and risk assessments should be conducted in the preferred language of the family. LPH and/or the assessing agency should use an interpreter or interpreting service if necessary.</li> </ul> </li> </ul> </li> </ul>
Venous 10.0–44.9	<p>In addition to the steps described above for lower blood lead levels on venous samples, perform the following within 3 business days, or sooner for higher blood lead levels:</p> <ul style="list-style-type: none"> <li>▪ Contact the family with the recommendation for a repeat test on a venous sample every 3 months until BLL &lt; 3.5 µg/dL. More frequent monitoring may be recommended for higher blood lead levels. <ul style="list-style-type: none"> <li>▪ Contact the medical care provider regarding the need for follow-up venous testing if venous follow-up not completed within three months.</li> </ul> </li> <li>▪ Complete an in-depth assessment of medical, environmental, nutritional, and developmental needs. Make referrals as appropriate.</li> <li>▪ MDH or LPH will conduct an environmental risk assessment within 10 working days of receiving the qualifying blood lead level. <ul style="list-style-type: none"> <li>▪ In collaboration with the assessing agency, LPH must ensure that in-home health education is provided through a home visit and/or risk assessment. A home visit by LPH is recommended for these blood lead levels.</li> </ul> </li> </ul>
Venous 45.0–59.9	<p>In addition to the steps described above for lower blood lead levels on venous samples, perform the following immediately:</p> <ul style="list-style-type: none"> <li>▪ Contact the family with the recommendation for a repeat test on a venous sample as soon as possible. Let the family know the provider should be urgently reaching out to them to schedule additional follow-up.</li> <li>▪ At this level the medical care provider should consult with MN Regional Poison Center or Region 5 PEHSU. Chelation treatment may be recommended (see MDH treatment guidelines). More frequent monitoring as well as additional tests and medical follow-up should be expected, including blood lead tests on venous samples 3-6 weeks after chelation therapy is complete. <ul style="list-style-type: none"> <li>▪ Contact MDH and the medical provider to determine medical status, treatment, and follow-up plans.</li> <li>▪ LPH should assist with contacting family and coordinating trips to clinic or hospital for recommended further testing and treatment as soon as possible, as well as follow-up tests after chelation therapy is complete.</li> </ul> </li> <li>▪ For children with venous blood lead levels of 45.0 µg/dL or greater, an environmental risk assessment will be scheduled within 5 working days. <ul style="list-style-type: none"> <li>▪ The LPH case manager should arrange for an initial home visit. If possible, the home visit should happen at the same time as the risk assessment. LPH case manager should communicate with the risk assessor assigned to the case.</li> <li>▪ Attempt to facilitate alternative, lead-safe housing if available.</li> </ul> </li> </ul>
Venous ≥ 60.0	<p>In addition to the steps described above for lower blood lead levels on venous samples, perform the following immediately:</p> <ul style="list-style-type: none"> <li>▪ TREAT AS AN EMERGENCY— potential encephalopathy.</li> <li>▪ For children with venous blood lead levels of 60.0 µg/dL or greater, an environmental risk assessment will be scheduled within 48 hours. Additional follow-up should match follow-up for venous levels of 45.0–59.9 µg/dL.</li> </ul>

\*For individuals who receive services through a Tribe, services may be provided by Tribal public health rather than local public health.