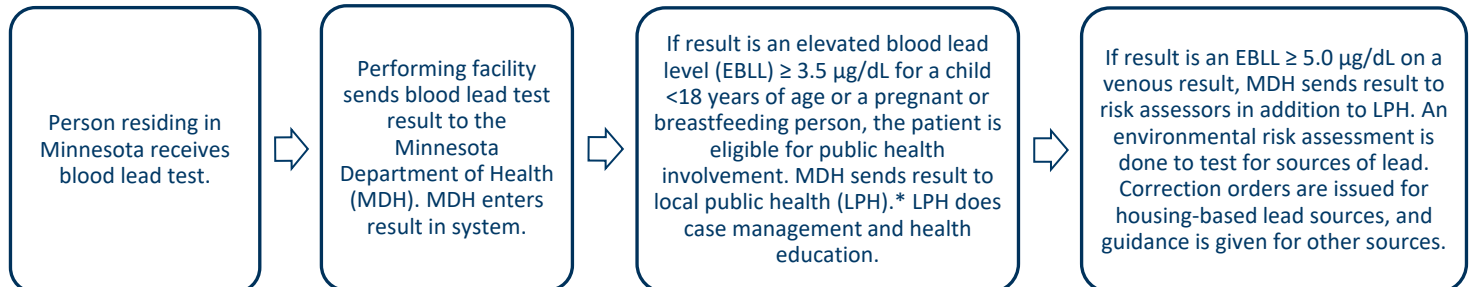


Minnesota Childhood Blood Lead Treatment Guidelines

REVISED 2025

Process and Role of Public Health



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

Lead Contacts

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 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

MN Regional Poison Center (mnpoison.org/):

- 1-800-222-1222 or webpoisoncontrol.org

Region 5 Pediatric Environmental Health Specialty Unit (PEHSU)

(<https://www.pehsu.net/findhelp/region5>)

- 312-355-0597 or ChildrensEnviro@uic.edu

Resources

- MDH Lead Fact Sheets and Brochures (www.health.state.mn.us/communities/environment/lead/fs/index.html)
- MDH Blood Lead Level Guidelines (www.health.state.mn.us/communities/environment/lead/prof/guidelines.html)
- MDH Reporting Blood Lead Test Results (www.health.state.mn.us/communities/environment/lead/reporting.html)
- MDH Child and Teen Checkups Lead Testing Factsheet (www.health.state.mn.us/docs/people/childrenyouth/ctc/lead.pdf)
- PEHSU Lead (https://www.pehsu.net/health_professionals_families/health_topics/lead/)

Treatment Guidelines: Blood Lead Tests on Capillary Samples

BLLs (µg/dL)	ACTIONS BASED ON RESULTS OF BLOOD LEAD TESTS ON CAPILLARY SAMPLES
ALL BLLs	ALL BLOOD LEAD TESTS ARE REQUIRED TO BE REPORTED TO MDH BY THE LAB OR CLINIC ANALYZING THE SAMPLE. HEALTH CARE PROVIDERS DO NOT NEED TO CALL MDH TO REPORT (UNLESS THEY SUSPECT A FAILURE TO REPORT PROPERLY).
Capillary < 3.5	<ul style="list-style-type: none"> Prevention Education: discuss blood lead testing and high-risk categories, primary sources of lead, and measures to keep children safe from lead. Education should be provided in the family's preferred language. Retest at ages 12 and 24 months or if risk factors change. For newly arrived refugees less than 72 months of age, retest 3 to 6 months after placement in permanent residence.
Capillary ≥ 3.5	<p>In addition to the steps described above for lower blood lead levels, perform the following:</p> <ul style="list-style-type: none"> Contact the family to schedule a blood lead test on a venous sample. Confirm with a venous draw no later than: <ul style="list-style-type: none"> 1 month for Blood Lead Levels (BLLs) 3.5–9.9 µg/dL 1 week for BLLs 10.0–44.9 µg/dL 48 hours for BLLs 45.0–59.0 µg/dL Immediately for BLLs ≥ 60 µg/dL. Venous confirmation is required for a risk assessment. If a clinic is unable to do a venous draw, refer the child to a laboratory or facility able to perform a venous draw. MDH refers children to local public health departments (LPH).*

TREATMENT GUIDELINES CONTINUE ON NEXT PAGE

Treatment Guidelines: Blood Lead Tests on Venous Samples

BLLs (µg/dL)	ACTIONS BASED ON RESULTS OF BLOOD LEAD TESTS ON VENOUS SAMPLES
ALL BLLs	ALL BLOOD LEAD TESTS ARE REQUIRED TO BE REPORTED TO MDH BY THE LAB OR CLINIC ANALYZING THE SAMPLE. HEALTH CARE PROVIDERS DO NOT NEED TO CALL MDH TO REPORT (UNLESS THEY SUSPECT A FAILURE TO REPORT PROPERLY).
Venous < 3.5	<ul style="list-style-type: none"> Prevention Education: discuss blood lead testing and high-risk categories, primary sources of lead, and measures to keep children safe from lead. Education should be provided in the family's preferred language. Retest at ages 12 and 24 months or if risk factors change. For newly arrived refugees < 72 months of age, retest 3 to 6 months after placement in permanent residence.
Venous 3.5–4.9	<p>In addition to the steps described above for lower blood lead levels on venous samples, perform the following:</p> <ul style="list-style-type: none"> After initial venous result, repeat test on a venous sample every 3 months until < 3.5 µg/dL. <ul style="list-style-type: none"> Work with the family to schedule repeat tests as needed. After venous confirmation, venous follow-up tests are preferred due to accuracy, but capillary results are accepted. MDH refers children to local public health (LPH);* LPH does case management and health education. Communicate with LPH regarding potential sources of lead. Test all household members who are likely exposed to lead source(s) or refer them to their primary care provider for blood lead testing within one month. <ul style="list-style-type: none"> For housing-based sources, exposed individuals are typically < 72 months of age. For non-housing-based sources, household members of all ages may be exposed. Children who have persistently elevated levels in this range may benefit from additional communication and problem solving with LPH to identify potential lead sources and resources. Assess nutritional status (especially iron & calcium) through a conversation with family about the child's normal diet. Complete diagnostic evaluation including a physical exam and history. Complete studies to evaluate iron status (complete blood count (CBC), ferritin, and reticulocyte count) and treat iron deficiency if present. Check and follow neurologic & developmental status. Refer to programs like Follow-Along or Help-Me-Grow as applicable. Provide education on decreasing elevated BLLs: educate the family and discuss potential sources of lead, reducing or removing exposure, lead abatement, nutrition, chronic nature of lead, and need for ongoing monitoring of BLLs. Provide written, culturally appropriate lead poisoning prevention educational materials.
Venous 5.0–9.9	<p>Perform the steps described above for lower blood lead levels on venous samples. The following is performed by public health:</p> <ul style="list-style-type: none"> MDH and/or LPH will attempt to conduct an environmental inspection (risk assessment) and education in the home within 20 working days of receiving the qualifying blood lead level. <ul style="list-style-type: none"> Through the environmental inspection, 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.
Venous 10.0–44.9	<p>In addition to the steps described above for lower blood lead levels on venous samples, perform the following:</p> <ul style="list-style-type: none"> Household members who are likely exposed to lead sources should be tested or referred to their primary care provider for a blood lead test within one week. After initial confirmed venous result, repeat test on a venous sample every 3 months or do more frequent monitoring, as needed. MN Regional Poison Center (1-800-222-1222) or Region 5 PEHSU (312-355-0597) may be consulted for questions about monitoring frequency. MDH or LPH will conduct a risk assessment within 10 working days of receiving the qualifying blood lead level.
Venous 45.0–59.9	<p>In addition to the steps described above for lower blood lead levels on venous samples, perform the following:</p> <ul style="list-style-type: none"> Household members who are likely exposed to lead sources should be tested or referred to their primary care provider for a blood lead test within two business days. Reconfirm blood lead test result as soon as possible, even for venous results. Check abdominal radiograph. If swallowed lead object found, lead object should likely be passed or removed prior to chelation. Consult with MN Regional Poison Center or PEHSU (below) for guidance. Consult MN Regional Poison Center (1-800-222-1222) or Region 5 PEHSU (312-355-0597) for guidance regarding possible chelation treatment, diagnostic tests, and other recommended actions. If chelation is recommended, coordination may be needed to ensure the availability of the chelation medication at specific locations. Contact MDH as soon as possible for assistance locating chelation medication if needed. Notify MDH immediately if child is hospitalized or chelation is begun. Coordinate care with MDH/LPH and put an action plan in place. Discuss with MDH and family ways to reduce immediate lead exposure. After initial confirmed venous result, more frequent monitoring through repeated tests on venous samples will likely be needed. Develop a monitoring plan based on BLL trends that includes repeat tests on venous samples 3 to 6 weeks after chelation therapy is complete. If BLL ≥ 45 µg/dL following chelation, consult with MN Poison Control or PEHSU. MDH or LPH will conduct a risk assessment within 5 working days of receiving the qualifying blood lead level.
Venous ≥ 60.0	<p>In addition to the steps described above for lower blood lead levels on venous samples, perform the following:</p> <ul style="list-style-type: none"> TREAT AS AN EMERGENCY— potential encephalopathy. Household members who are likely exposed to lead sources should be tested or referred to their primary care provider for a blood lead test immediately. MDH or LPH will conduct a risk assessment within 48 hours of receiving the qualifying blood lead level.

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