Blood Lead Levels in Children

A blood lead level tells you how much lead is in your child’s body. There is no safe level of lead in the blood, but a small amount of lead can be found in most children’s blood due to the pervasiveness of lead in the environment.

Most children have lead levels under 5 micrograms per deciliter of blood (µg/dL).

The Massachusetts Childhood Lead Poisoning Prevention Program (CLPPP) and the Lead Law (105 CMR 460) define an elevated level of lead in the blood at ≥ 10 µg/dL. (Proposed revisions to the Lead Law will lower this blood lead Level of Concern to between 5 and 10 µg/dL)

The CLPPP and current Lead Law define lead poisoning at ≥ 25 µg/dL. (Proposed revisions to the Lead Law will lower the lead poisoning level to ≥10 µg/dL)

What to do if informed of a Blood Lead Level of Concern or Lead Poisoning

Upon receiving a call regarding an elevated blood lead level in a child living in a residence at Harvard University, EHS will inform the caller to:

- Call University Operation Center at 617-495-5560, and
- Contact their Building Management Representative.

If the call is from a Harvard University Building or Property Manager seeking assistance, EHS will refer them to the CLPPP.

CLPPP
MA Department of Public Health
250 Washington Street, Seventh Floor
Boston, MA 02108
1-800-532-9571 (toll free)
clppp@state.ma.us
www.mass.gov/dph/clppp

The table below provides additional assistance concerning follow-up actions required by the Massachusetts Department of Public Health (MassDPH) and the CLPPP for situations involving elevated blood lead levels. This table was summarized from information available on the MassDPH website.
## Type of Follow Up by Blood Lead Level (BLL) for Venous Blood Specimens

<table>
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<tr>
<th>Blood Lead Level</th>
<th>Information/Symptoms</th>
<th>Health Care Provider Follow-Up</th>
<th>Environmental Follow-Up</th>
<th>Testing Schedule</th>
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<td>0 - 4 µg/dL</td>
<td>According to the National Health and Nutrition Examination Survey (NHANES)’s blood lead distribution in children, 97.5% of children in the U.S. have a blood lead level between 0–&lt;5 µg/dL</td>
<td>BLL found in most children. No action at MA CLPPP.</td>
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<tr>
<td>5 - 9 µg/dL</td>
<td>In 2012, the CDC updated its guidelines on blood lead levels in children replacing its earlier 10 µg/dL level of concern with a reference level of 5 µg/dL. This reference level of 5 µg/dL is now used to identify children with blood lead levels that are much higher than most children’s levels. (This new level is based on the U.S. population of children ages 1-5 years who are in the highest 2.5% of children when tested for lead in their blood.) CDC reference level begins at 5 µg/dL. Education provided upon parental request; otherwise no action.</td>
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<tr>
<td>10 - 14 µg/dL</td>
<td>The CLPPP defines an elevated level of lead in the blood at ≥ 10 µg/dL. (Proposed revisions will lower this to between 5 and 10 µg/dL.) Most children will not look or act sick. Talk to your doctor about learning or developmental problems.</td>
<td>Check for iron deficiency. Iron therapy if needed.</td>
<td>MA Community Health Worker services will be offered. Inspection by a State Lead Inspector only by parental request.</td>
<td>Check BLL within 3 months.</td>
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<tr>
<td>15 - 19 µg/dL</td>
<td>It is important to find and fix the lead hazards in your residence. Have your residence inspected for lead.</td>
<td>Check for iron deficiency. Iron therapy if needed.</td>
<td>MA Community Health Worker services will be offered. State Lead Inspector will be assigned to offer an inspection. If lead hazards found, residence must be deleaded.</td>
<td>Check BLL within 2 months.</td>
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<td>20 - 44 µg/dL</td>
<td>Your child may have to stay in the hospital. The doctor may give your child medicine to help get the lead out of their body. This is called “chelation.”</td>
<td>Check for iron deficiency. Iron therapy if needed.</td>
<td>MA Community Health Worker services will be offered. A State Lead Inspector must conduct an inspection if it’s a case of a BLL at ≥ 25 µg/dL. If lead hazards found, residence must be deleaded.</td>
<td>Check BLL within 1 month.</td>
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<tr>
<td>45 - 69 µg/dL</td>
<td>If your child is lead poisoned (≥ 25 µg/dL), your residence must be inspected for lead. (Proposed revisions will lower lead poisoning level to ≥10 µg/dL) Some children may have trouble speaking, hearing, or paying attention. Ask your doctor about learning problems. You may need a special education plan for your child. Medical evaluation (most children are hospitalized). Chelation therapy.</td>
<td>Medical evaluation (most children are hospitalized). Chelation therapy.</td>
<td>MA Community Health Worker services will be offered. Emergency inspection by a State Lead Inspector will be conducted. If lead hazards found, residence must be deleaded.</td>
<td>Medical Provider’s discretion.</td>
</tr>
<tr>
<td>≥ 70 µg/dL</td>
<td>Immediate hospital admission and chelation therapy. Iron therapy after treatment.</td>
<td></td>
<td>MA Community Health Worker and hospital social worker services will be offered. Emergency inspection by a State Lead Inspector will be conducted. If lead hazards found, residence must be deleaded.</td>
<td>Medical Provider’s discretion.</td>
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</tbody>
</table>

1 This table only pertains to venous test results. Capillary results that are ≥ 10 µg/dL must be retested for confirmation. A venous retest is recommended as best medical practice. If you have any questions please call 1-800-532-9571 or visit the Childhood Lead Poisoning Prevention Program’s page at [www.mass.gov/dph](http://www.mass.gov/dph).
2 The CDC has updated its guidelines on blood lead levels in children. The earlier 10 µg/dL level of concern was replaced with a reference level of 5 µg/dL. For more information please visit [http://www.cdc.gov/nceh/lead/ACCLPP/blood_lead_levels.htm](http://www.cdc.gov/nceh/lead/ACCLPP/blood_lead_levels.htm)
3 Community health worker services include: lead hazard reduction education and outreach, translation services, home visits, counseling, and referrals to other agencies such as Early Intervention and the Women, Infants and Children Program (WIC).