West Virginia Childhood Lead Poisoning Prevention Program (WVCLPPP)
Management Guideline for Providers
Quick Guide for Lead Screening, Testing & Treatment

Childhood lead poisoning is a preventable, serious environmental health problem. Lead exposure is recognized as one of the most common environmental toxins for young children, especially children under the age of 6. No level of lead in the body is known to be safe. In 2012, the Centers for Disease Control and Prevention (CDC) established a new “reference value” of 5 micrograms per deciliter (μg/dL) for blood lead levels (BLLs), thereby lowering the level at which evaluation and intervention are recommended.

Legislative rule §64-42 to be read in conjunction with West Virginia State Code §16-35, requires all children shall receive a screening test at one year and again at two years of age, and children 36 to 72 months of age if they have not been screened previously.

4.1.2. The screening tests shall be recorded in each child’s medical record at the health care provider’s office. The Office of Maternal, Child and Family Health shall ensure laboratory results received are incorporated in the Immunization Registry within the Lead Module provided by the Bureau for Public Health for health care provider reference. This information shall include the date of screening test, the child’s address, the location where the screening test was conducted, which screening test was used, and the physician’s name.

4.2. The protocol for confirmation of elevated blood lead levels shall be in accordance with the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention Advisory Committee on Childhood Lead Poisoning Prevention, Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention (2012).

<table>
<thead>
<tr>
<th>Initial Capillary/ Unknown Sample</th>
<th>Venous and/or Capillary Sample</th>
<th>Initial Venous Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLL ≥5 μg/dL</td>
<td>BLL of 1 - ≤4.9 μg/dL</td>
<td>BLL ≥5 μg/dL</td>
</tr>
</tbody>
</table>

All venous and/or capillary samples with a BLL of 1 - ≤4.9 μg/dL should be recommended for follow-up testing and receive lead poisoning prevention information.

Schedule for Obtaining a Confirmatory Venous Sample

<table>
<thead>
<tr>
<th>Capillary Blood Lead Level</th>
<th>Confirm for Venous Test Within</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 9 μg/dL</td>
<td>3 months</td>
</tr>
<tr>
<td>10 – 19 μg/dL</td>
<td>1 month</td>
</tr>
<tr>
<td>20 - 44 μg/dL</td>
<td>2 weeks</td>
</tr>
<tr>
<td>45 - 68 μg/dL</td>
<td>48 hours</td>
</tr>
<tr>
<td>≥69 μg/dL</td>
<td>Immediately as an emergency lab test</td>
</tr>
</tbody>
</table>

The higher the capillary test results, the more urgent the need for a confirmatory venous test.

Schedule for Follow-Up Blood Lead Testing

<table>
<thead>
<tr>
<th>Venous Blood Lead Level</th>
<th>Confirm for Venous Test Within</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 9 μg/dL</td>
<td>3 months</td>
</tr>
<tr>
<td>10 – 19 μg/dL</td>
<td>1-3 months</td>
</tr>
<tr>
<td>20-44 μg/dL</td>
<td>2 weeks—1 month</td>
</tr>
<tr>
<td>45 - 68 μg/dL</td>
<td>As soon as possible</td>
</tr>
<tr>
<td>≥69 μg/dL</td>
<td>Admit to hospital; repeat testing 1-3 weeks after discharge</td>
</tr>
</tbody>
</table>

Some case managers or healthcare providers may choose to repeat blood lead tests on all new patients within a month. Repeated testing may ensure that the patient’s BLL is not rising more quickly than expected.

May 2022

WVCLPPP: 1-800-642-8522
dhhr.wv.gov/wvchildhoodleadpoisoning
## Temporary Interventions to Limit Exposure

Provide “Lead and Nutrition,” “Lead and Children” & “Lead and the Home”: education for parents and caregivers on:

- Hand washing
- Cleaning child’s toys, bottles, & pacifiers often
- Feeding child calcium, iron, & Vitamin C foods daily
- Barriers to block access to lead hazards
- Wet wipe window sills, door jams, & door frames
- Wet mop floors and stairs once a week or more
- Use a vacuum with a HEPA filter to clean up dust and paint chips

## Clinical Treatment Guideline for Confirmed Blood Lead Levels

<table>
<thead>
<tr>
<th>Blood Lead Level (BLL)</th>
<th>Management Strategy</th>
</tr>
</thead>
</table>
| <5 µg/dL               | Provide education about common sources of lead exposure and information on how to further prevent exposure.  
                         - During well-child visits, check development to make sure age-appropriate milestones are being met.  
                         - During well-child visits, discuss diet and nutrition with a focus on iron and calcium intake.  
                         - Conduct follow-up blood lead testing at recommended intervals based on the child’s age. |
| 5-19 µg/dL             | Follow the recommendations above for BLL < 5 µg/dL.  
                         - Report the test result to your state health department.  
                         - Obtain an environmental exposure history to identify potential sources of lead.  
                         - Ensure the child does not have iron deficiency using testing and treatment. Follow testing and treatment guidelines from the American Academy of Pediatrics (AAP).  
                         - Discuss the child’s diet and nutrition with a focus on calcium and iron intake.  
                         - Check the child’s development to ensure appropriate milestones are being met per AAP guidelines.  
                         - Refer caregivers to supportive services, as needed (e.g., developmental specialists, Early Intervention Program).  
                         - Provide follow-up BLL testing at recommended intervals. |
| 20–44 µg/dL            | Follow the recommendations above for BLL 3.5-19 µg/dL.  
                         - Perform a complete history and physical exam, assessing the child for signs and symptoms related to lead exposure.  
                         - Consider performing an abdominal X-ray to check for lead-based paint chips and other radiopaque foreign bodies. This is important for young children who tend to swallow or eat non-food items. Children may also put their mouths on surfaces that could be covered with lead dust. Initiate bowel decontamination if indicated.  
                         - Consult with a medical toxicologist or pediatrician with experience in treating lead poisoning to initiate gastrointestinal decontamination or chelation therapy.  
                         - Contact a PEHSU or Poison Control Center (1-800-222-1222) for assistance. |
| ≥45 µg/dL              | Follow recommendations for BLL 20–44 µg/dL.  
                         - Perform a complete history and physical exam including a detailed neurological exam.  
                         - Perform an abdominal X-ray and, if needed, initiate bowel decontamination.  
                         - If the patient exhibits signs or symptoms of lead poisoning, including, confusion, weakness, seizures, coma, nausea, vomiting, and abdominal pain, admit them to a hospital as soon as possible.  
                         - Consult with a medical toxicologist or pediatrician with experience in treating lead poisoning to initiate gastrointestinal decontamination or chelation therapy.  
                         - Contact a PEHSU or Poison Control Center (1-800-222-1222) https://www.pehsu.net for assistance. |