Guidelines for Childhood Lead Poisoning Testing

Guideline History

<table>
<thead>
<tr>
<th>Guideline History</th>
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</thead>
<tbody>
<tr>
<td>Original Approve Date</td>
</tr>
<tr>
<td>Review/Revise Dates</td>
</tr>
<tr>
<td>Next Review Date</td>
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</tbody>
</table>
No level of lead in the blood is safe. In 2012, the CDC established a new reference value of (5 mcg/dl), thereby lowering the level at which evaluation and intervention is recommended by the CDC.

Note: Confirm elevated blood lead levels 5 µg /dL. A ‘confirmed’ elevated blood lead level (EBLL) is defined as a single elevated venous test 5 µg /dL or two elevated capillary tests within 84 days/12 weeks. A venous sample is required for environmental investigations. Virginia regulations require reporting of blood level 5 µg /dL s (using the EPI-1 form) to the Office of Epidemiology. Regulations 12 VAC 5-120 require laboratories and point of care providers using CLIA-waived devices to report all blood lead tests on children under the age of six within ten days of analysis.

**MANAGEMENT OF CHILDREN WITH CONFIRMED ELEVATED BLOOD LEAD LEVELS**

<table>
<thead>
<tr>
<th>BLOOD LEAD LEVEL (µg /dL)</th>
<th>TIME FRAME</th>
</tr>
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<tbody>
<tr>
<td>5-14</td>
<td>(Case manager assures coordinated action and follow-up)</td>
</tr>
<tr>
<td></td>
<td>• Provide caregiver lead education: dietary and environmental</td>
</tr>
<tr>
<td></td>
<td>• Follow-up blood lead testing within 30 days to assure not rising</td>
</tr>
<tr>
<td></td>
<td>• Refer to WIC and social services, if needed</td>
</tr>
<tr>
<td></td>
<td>(Begin intervention)</td>
</tr>
<tr>
<td>15-19</td>
<td>Within 2 weeks</td>
</tr>
<tr>
<td></td>
<td>• Above action, plus:</td>
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<tr>
<td></td>
<td>• Proceed according to actions for 20-40 µg /dL if: A follow-up blood lead is 15 or above, or the blood lead level is increasing</td>
</tr>
<tr>
<td>20-44</td>
<td>Within 1 week</td>
</tr>
<tr>
<td></td>
<td>• Above actions, plus:</td>
</tr>
<tr>
<td></td>
<td>• Provide coordination of care (case management)</td>
</tr>
<tr>
<td></td>
<td>• Provide environmental investigation and control lead hazards</td>
</tr>
<tr>
<td>45-69</td>
<td>Within 48 hours</td>
</tr>
<tr>
<td>70 and above</td>
<td>Within 24 hours</td>
</tr>
<tr>
<td></td>
<td>• Above actions, plus:</td>
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<tr>
<td></td>
<td>• Hospitalize child and begin medical treatment (chelation therapy as appropriate) immediately.</td>
</tr>
<tr>
<td></td>
<td>• Contact Emergency Lead Healthcare line below.</td>
</tr>
</tbody>
</table>

Current CDC management recommendations adapted from Managing Elevated Blood Lead Levels among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention (CDC 2002). *Investigations may be required where babies or multiple children in a household have elevated blood lead levels. Follow-up care is described in more detail in the VDH “Care Coordination Manual: Children with Lead Poisoning in Virginia”.

http://www.cdc.gov/nceh/lead/casemanagement/managingEBLLs.pdf

Emergency Lead Healthcare Information Line
TOLL FREE EMERGENCY (866) 767-5323
(866) SOS-LEAD

Note: For questions related to your local area, refer to your local health department. Local health policy and lead ordinances may have additional requirements. Richmond City has a lead ordinance that requires an investigation at 10 µg /dL. Developed by the Virginia Department of Health Lead Elimination Plan Medical Committee, following CDC Guidelines and Virginia Regulations. Funded by the Centers for Disease Control and Prevention and the Virginia Department of Health. Revised May 2009. (Last updated 12/2015)
Lead Questionnaire

Blood lead levels shall be obtained in children at ages 1 and 2 if they meet ANY one of the criteria noted below. In addition, children ages 3-5 years of age who have not previously been tested and meet ANY one of the criteria below shall also be tested.

1. Eligible for or receiving Medicaid, or WIC benefits? ____

2. Living in a ZIP code determined to be high risk based on age of housing and other factors? (Appendix 1)

3. Living in or regularly visiting a house or day care center built before 1950? ____

4. Are you living in or regularly visiting a house built before 1978? ____ Are you living in a home with peeling or chipping paint or recent ongoing or planned renovation (within the last 6 months)? _____

5. Living with or regularly visiting a sibling, housemate, or playmate with lead poisoning? ____

6. Living with an adult whose job or hobby involves exposure to lead? (Check all that apply)

   ___Radiator repair    ___Battery Manufacture or repair    ___Welding
   ___Housing renovation    ___Making pottery    ___Chemical preparation
   ___Stained glass w/ lead solders    ___Valve/pipe fittings    ___Going to a firing range
   ___Brass/Copper/Foundry    ___Smelting    ___Refinishing furniture
   ___Burning lead painted Wood    ___Casting ammunition, fishing weights, or toy soldiers
   ___Automotive repair shop    ___Bridge, tunnel and industrial machinery and equipment

7. Living near an active lead smelter, battery-recycling plant, or other industry likely to release lead? ___

8. Have any other members of the family had elevated blood lead levels? ____

9. Is your child a refugee? ____

10. Is your child’s history unknown? __

__________________________________________________________________________

Signature of Legal Guardian    Date
What You Should Know
Childhood Lead Poisoning

Low levels of lead in the blood can affect IQ cause learning disabilities, behavioral problems, and at very high levels, seizures, coma, and even death. The effects of lead exposure are not reversible.

How Are Children Exposed to Lead?
Major sources of lead exposure among U.S. children are lead-based paint and lead-contaminated dust found in deteriorating buildings and housing built before 1978.

Other sources of lead poisoning include:

- Home health remedies (i.e. arzacon, greta, pay-loo-ah),
- Some imported candies (specifically those from Mexico),
- Imported toy jewelry and make up.
- Drinking water (lead pipes, solder, brass fixtures, and valves can all leach lead),
- Work (recycling or making automobile batteries), and
- Hobbies (making stained-glass windows, pottery). Imported items including clay pots

Certain Imported home remedies

Those at risk include children:

- Under the age of 6 years
- Living at or below the poverty line
- Live in older housing built before 1978
- Some racial and ethnic groups

Preventing Lead Poisoning
The key to protecting children from lead exposure is to prevent lead exposure before it happens by keeping children from coming into contact with lead and treating children who have been poisoned by lead.

- Identify and safely remove all lead hazards.
- Parental guidance and education on lead poisoning
- Test and treat for lead poisoning as needed

Decrease your exposure to lead by:

- Getting your child (ren) tested if you are concerned about a possible lead exposure.
- Getting your home tested for lead if you live in a house or apartment built before 1978, especially if young children live with you or visit you.
- Damp-mop floors; damp-wipe surfaces; and frequently wash a child’s hands, pacifiers, and toys
- Avoid using home remedies and cosmetics that contain lead (i.e. arzacon, greta, pay-loo-ah, kohl, alkohl)
- Children and pregnant women should not eat candies imported from Mexico.
- Use cold water from the tap for drinking, cooking, and making baby formula.

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Resources

Lead-Safe Virginia Program  www.vahealth.org/leadsafe

CDC  www.cdc.gov/nceh/lead/

The Office of Lead Hazard Control and Healthy Homes (OLHCHH)

Childhood Lead Poisoning Prevention Program Community Awareness Project (CLPPP CAP)

United States Environmental Protection Agency (EPA)

National Center for Environmental Health/Division of Emergency and Environmental Health Services (EEHS)
References


These Guidelines are promulgated by Sentara Health Plan (SHP) as recommendation for the clinical management of specific conditions. Clinical data in a particular case may necessitate or permit deviation from these Guidelines. The SHP Guidelines are institutionally endorsed recommendations and are not intended as a substitute for clinical judgment.

Appendix 1

Virginia High-Risk Zip Codes*

<table>
<thead>
<tr>
<th>Accomac</th>
<th>Augusta</th>
<th>Charlotte</th>
<th>Falls Church City</th>
<th>Hampton City</th>
<th>Henrico</th>
<th>Hopewell</th>
<th>Isle of Wight</th>
<th>James City</th>
<th>Luxury</th>
<th>Lynchburg City</th>
<th>Madison</th>
<th>Newport News City</th>
<th>Norfolk</th>
<th>Pocahontas</th>
<th>Prince Edward</th>
<th>Prince George</th>
<th>Prince William</th>
<th>Richmond</th>
<th>Roanoke</th>
<th>Suffolk</th>
<th>Surry</th>
</tr>
</thead>
<tbody>
<tr>
<td>23306</td>
<td>23004</td>
<td>23238</td>
<td>23342</td>
<td>23395</td>
<td>23396</td>
<td>23398</td>
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<td>23510</td>
<td>23527</td>
<td>23530</td>
<td>23540</td>
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* Areas with these ZIP Codes have ≥27% of housing built before 1950 and/or an increased prevalence of children with elevated blood lead levels per available data. ZIP Codes are from the 2000 U.S. Census. View http://www.vaphil.org/execute for updates and information on childhood lead poisoning in Virginia and access to publications available to medical professionals, parents and others. Toll free phone (877) 669-7987.

Virginia Department of Health, Revised June 2005

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