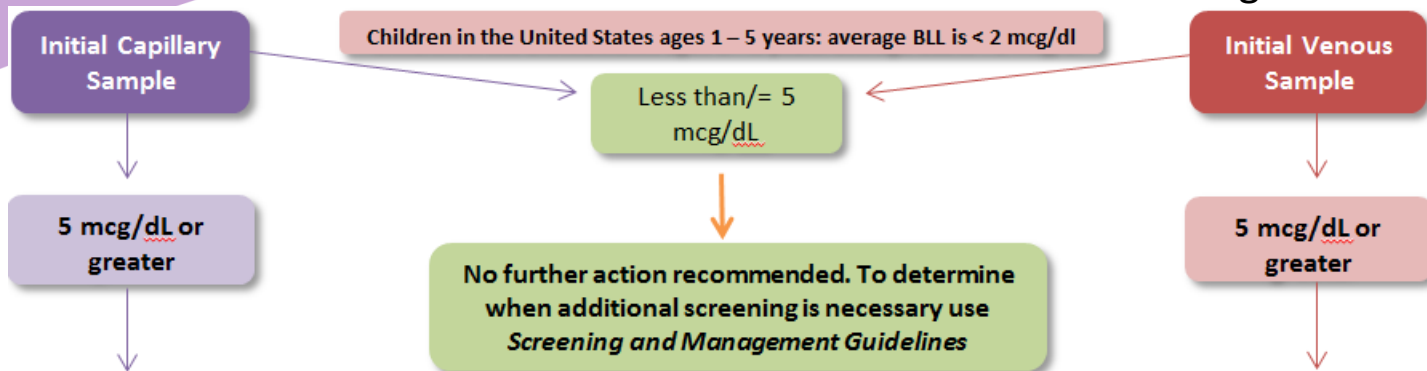


# LEAD POISONING

## CHILD MEDICAL MANAGEMENT Quick Guide for Lead Testing & Treatment



Schedule For Obtaining Venous Sample	
Capillary Blood Lead	Confirm For Venous Test Within
<5mcg/dL	Not necessary unless other risk factors. Test children less than 12 mos. old in 3 to 6 months as BLL may increase with mobility.
5-9 mcg/dL	Within 3 months.
10-19 mcg/dL	Within 1 month
20-44 mcg/dL	Within in 1 week
45-69 mcg/dL	Within 48 hours
70+ mcg/dL	Immediately as an emergency test
The <b>higher</b> the capillary test result, the more urgent the need for a <b>confirmatory venous test</b>	

Schedule For Venous Re-testing	
Venous Blood Lead	Follow-Up and Re-testing
< 5 mcg/dl	Retest child at 1 and 2 years old. Retest child in 6 – 12 months if child is at high risk or risk changes during time frame.
5-9 mcg/dL	Within 3 months *May necessitate frequent follow-up testing.
10-19 mcg/dL	Every 3 months
20-39 mcg/dL	Every 1-2 months
40-69 mcg/dL	Every 1-2 weeks (even after chelation)
70+ mcg/dL	Initiate chelation and re-test within 1-2 weeks
*Some providers may choose to repeat BLL tests within 1 month to ensure BLL is not rising more quickly than anticipated.	

Clinical Treatment Guidelines for Venous Confirmed Blood Lead Levels			
3 - 9 mcg/dL	10 - 44 mcg/dL	45 - 69 mcg/dL	70+ mcg/dL
<ul style="list-style-type: none"> <li>Provide factsheets to parents (<i>Lead &amp; Children, Lead &amp; Nutrition</i>)</li> <li>Follow-up BLL monitoring</li> <li>Retest infants earlier than 3-6 months</li> <li>Test siblings for EBLL</li> <li>The HHLPPP sends letter notifying parents of EBLL</li> </ul>	<p><b>Continue management, AND:</b></p> <ul style="list-style-type: none"> <li>Rule out iron deficiency &amp; prescribe iron if needed</li> <li>Neurodevelopmental monitoring &amp; consider referral for evaluation</li> <li>Patients with BLL of 25-44 mcg/dL need aggressive environmental intervention</li> <li>For BLL 25 - 44mcg/dL, CHEMET (succimer) is NOT recommended as there is no cognitive benefit</li> <li>The HHLPPP provides nurse case management &amp; an environmental lead investigation</li> </ul>	<ul style="list-style-type: none"> <li>Contact PEHSU at Children’s Hospital (1-888-214-5314) for chelation guidance and/ or follow AAP Treatment Guidelines</li> <li>Confirm BLL within 2 days</li> <li>Stop iron therapy prior to chelation</li> <li>Begin chelation in consultation with clinician experienced in lead toxicity therapy</li> <li>Consider directly observed therapy with CHEMET (succimer)</li> <li>Ensure child is discharged to a lead-free environment</li> </ul>	<p><b>EMERGENCY!</b></p> <ul style="list-style-type: none"> <li>Confirm BLL immediately</li> <li>Hospitalize even if asymptomatic</li> <li>Contact PEHSU at Children’s Hospital (1-888-347-2632) for immediate consultation on lead toxicity therapy</li> <li>Stop iron therapy prior to chelation</li> <li>Ensure child is discharged to a lead-free environment</li> </ul>

## CHILD MEDICAL MANAGEMENT

### Quick Guide for Clinical Evaluation & Management

#### New UNIVERSAL TESTING LAW

- Test all children at 12 mos. and again at 24 mos. (2 tests)\*
- Test all children 3 to 6 yrs. old who haven't been tested
- For refugee children:
  - \* Test all children between 6 mos. and 16 years old upon entry into the US
  - \* Regardless of initial testing result, conduct a follow up on all children 6 mos. to 6 yrs. old

*\*Does not apply to children who have elevated blood lead levels and are currently in case management.*

#### Interventions to Help Limit Exposure

Educate caregivers by providing three DHHS factsheets:

“Lead and Nutrition”, “Lead and Children” and “Lead Hazards”

- Hand washing—with soap and water
- Clean child's toys, bottles & pacifiers often
- Feed child Calcium, Iron & Vitamin C foods daily
- Have barriers blocking access to lead hazards
- Wet wipe window sill, door jams, & door frames
- Wet mop floors and stairs once a week or more
- Use HEPA filter vacuum to clean up dust and paint chips

#### Lead Risk Questions To Ask Parents of Children with EBL's $\geq 5$ mcg/dL

- Developmental delays or learning disabilities?
- Behavioral problems? (e.g. aggression & attention issues)
- Excessive mouthing or pica behavior?
- Ingestion of non-food items?
- Living in pre-1978 housing?
- Attending child care in pre-1978 building?
- Recent renovations/ remodeling in pre-1978 housing or child care
- Recent immigrant, refugee, or international adoption?
- Parent occupation or hobbies have lead exposure? (e.g. renovations, painting, welding, fishing, target shooting, stain glass, jewelry making)
- Imported ethnic spices/ powders that contain lead? (e.g. sindoor, surma, greta, orange shringar, asafetida, turmeric)
- Does child have sibling or playmate that has or did have lead poisoning?

### Developmental Assessment & Intervention for Children with EBL

For any child with a **venous BLL  $\geq 5$ mcg/dL**

- Annual developmental surveillance and screening at ages 3, 4 and 5 years is recommended
- Developmental surveillance at annual visit for all ages to identify emerging/unaddressed behavioral, cognitive, or developmental concerns

For any child with a **venous  $\geq 20$  mcg/dL or persistently  $\geq 15$  mcg/dL with other developmental risk factors:** neurodevelopmental monitoring is needed

#### Action Steps

- Long term developmental monitoring should be a component of the child's management plan.
- A history of EBL should be included in the problem list maintained in the child's permanent medical record, even if BLL is reduced.
- Refer child to early intervention or child-check for developmental screening.
- Recommend early childhood education and stimulation programs.
- Refer to NH Division of Developmental Services for a list of local Family-Centered Early Supports & Services at (603)-271-5143

#### Developmental Surveillance should include:

- Vigilance for physical, social, emotional, academic challenges at critical transition points in childhood (e.g. preschool, 1<sup>st</sup>, 4<sup>th</sup>, 6<sup>th</sup> & 7<sup>th</sup> grades).
- Vigilance for in-attention, distractibility, aggression, anti-social behavior, irritability, hyperactivity, low impulse control and poor emotional regulation.
- Refer children experiencing neurodevelopmental problems for a complete diagnostic medical evaluation.
- Continue to monitor development through a child's early and middle-school years, even if BLL is reduced.

For children of any age: if issues arise between annual visits, encourage parents to bring them to attention of the medical office and school personnel