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New Hampshire Pediatric Blood Lead Level (BLL) Testing Requirements **[NH RSA 130-A: Lead Paint Poisoning Prevention and Control](#)**

Key Points and Recommendations:

- Blood lead level (BLL) testing is now required by NH law for all one- and two-year old children residing in NH ([NH RSA 130-A:5-a](#)); the State's Lead Paint Poisoning Prevention and Control law was changed in April 2018.
- Children younger than one year or older than 2 years of age who have potential lead hazard exposures are also recommended to be tested for elevated BLLs.
- All health insurance companies are now mandated to cover the cost of the blood lead level testing.
- The New Hampshire Department of Health and Human Services' (NH DHHS) [Child Medical Management Quick Guide](#) (see attachment) recommends that any child with a BLL of 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$) or greater (capillary or venous) has a follow-up blood lead level test within three to six months.
- A parent/guardian can refuse BLL testing for their child, but providers need to inform the parent/guardian of the recommendation, the risks of not having a child's BLL tested, and then properly document the refusal in the patient's medical record. An opt-out form will be developed by NH DHHS to facilitate clinician discussions ([RSA 130-A:5-c](#)).
- All healthcare providers who conduct capillary BLL testing and identify a child with a detectable BLL need to provide the parent/guardian with the attached NH DHHS factsheet describing the health effects of lead poisoning, the advisability of obtaining a confirmatory venous blood sample, and the benefits of identifying and addressing lead hazards ([NH RSA 130-A:3-a](#)). The factsheet has been translated into additional languages which can be found at: <https://www.dhhs.nh.gov/dphs/bchs/clpp/parents.htm>
- Healthcare providers using any point-of-care Magellan LeadCare™ instrument for capillary testing are required under [NH RSA 130-A:3](#) to report the results of BLL testing to the DHHS Healthy Homes and Lead Poisoning Prevention Program. BLL test results should be faxed within three to five business days. BLLs greater than 45 $\mu\text{g}/\text{dL}$ should be reported immediately. Results should be faxed to 603-271-3991.

Background:

In 2012, the Centers for Disease Control and Prevention's Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) recommended a population blood lead level (BLL) reference value of 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$) to identify children at risk for lead exposure in order to provide lead education, environmental investigation, and additional medical monitoring (https://www.cdc.gov/nceh/lead/acclpp/final_document_030712.pdf). There is no safe BLL, and lead exposure can affect a child's physical growth and development, cause damage to the brain and nervous system, and lead to learning and behavior problems.

In 2017, 652 New Hampshire children under the age of 72 months were identified with elevated blood lead over 5 µg/dL, this includes 106 children with a blood lead level ≥ 10 µg/dL, most of whom were new detections with no history or a prior elevated BLL. The NH Healthy Homes and Lead Poisoning Prevention Program within the NH DHHS estimates that every year about 36% of one-year old children and 59% of two-year old children are not tested for BLLs. Because of the problem of childhood lead exposure in New Hampshire, the NH DHHS worked with the NH legislative Childhood Lead Poisoning Prevention and Screening Commission (established in 2015 through [Senate Bill 135](#)) to create and enact new legislation aimed at increasing appropriate BLL testing in young children, and to provide mechanisms to inform and educate families about the risks of lead exposure, and resources available to address potential exposures. In April 2018, NH RSA 130-A (the Lead Paint Poisoning and Control law) was changed as described above: <http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-X-130-A.htm>.

Additionally, in accordance with NH [RSA 130-A:6-b](#), parents of children with an BLL of 3 µg/dL or greater will now receive a notification letter from NH DHHS Healthy Homes and Lead Poisoning Prevention Program informing parents about lead exposure risks, the importance of follow-up BLL testing, and available resources for parents/guardians. The Healthy Homes and Lead Poisoning Prevention Program will continue to provide nurse case management for children with a confirmed venous blood lead elevation greater than 10 µg/dL, which includes an environmental investigation for children living in a leased or rented unit. Changes to NH RSA 130-A will gradually lower the action limit at which the State provides these services over the next few years.

Additional Resources:

NH DHHS Childhood Lead Screening and Management

Resources: <https://www.dhhs.nh.gov/dphs/bchs/clpp/medical-providers.htm>

For more information about using point-of-care LeadCare II[®] analyzers, please review this guide: <https://www.dhhs.nh.gov/dphs/bchs/clpp/documents/poc-leadcare2-guide.pdf>.

For any questions regarding the contents of this message, please contact NH DHHS, DPHS, Bureau of Public Health Protection, Healthy Homes and Lead Poisoning Prevention Program at 1-800-897-LEAD or LeadRN@dhhs.nh.gov

To change your contact information in the NH Health Alert Network, contact Adnela Alic at 603-271-7499 or Adnela.Alic@dhhs.nh.gov.

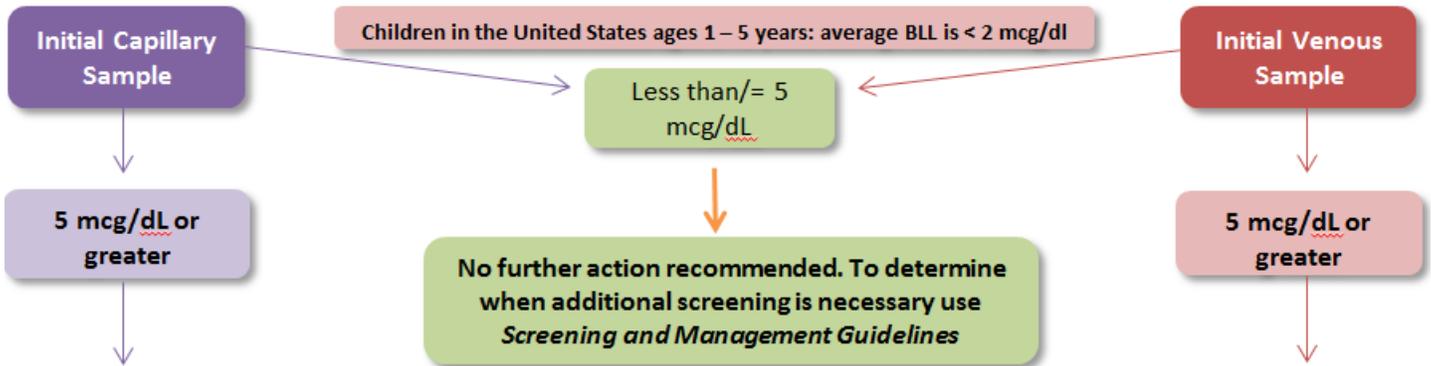
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From: Benjamin Chan, MD, MPH – State Epidemiologist
Originating Agency: NH Department of Health and Human Services, Division of Public Health Services

Attachments:

Child Medical Management Quick Guide
Lead and Children Factsheet

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 <12 mos. in 3 – 6 mos. 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 higher the capillary test result, the more urgent the need for a confirmatory venous test	

Schedule For Venous Re-testing	
Venous Blood Lead	Follow-Up and Re-testing
< 5 mcg/dl	Retest child at 1 yr. and 2 yr. old. Retest child 6 – 12 mos. 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"> Provide factsheets to parents (<i>Lead & Children, Lead & Nutrition</i>) Follow-up BLL monitoring Retest infants earlier than 3-6 months Test siblings for EBLL HHLPPP sends letter to home, notifying parents of EBLL 	<p>Continue management, AND:</p> <ul style="list-style-type: none"> Rule out iron deficiency & prescribe iron if needed Neurodevelopmental monitoring & consider referral for evaluation Patients with BLL of 25-44 mcg/dL need aggressive environmental intervention For BLL 25 - 44mcg/dL, CHEMET (succimer) is NOT recommended as there is no cognitive benefit HHLPPP provides nurse case management & environmental lead investigation 	<ul style="list-style-type: none"> Confirm BLL within 2 days Stop iron therapy prior to chelation Begin chelation in consultation with clinician experienced in lead toxicity therapy Consider directly observed therapy with CHEMET (succimer) Contact PEHSU at Children's Hospital (1-888-214-5314) for chelation guidance and/ or follow AAP Treatment Guidelines Ensure child is discharged to a lead-free environment 	<p>EMERGENCY!</p> <ul style="list-style-type: none"> Confirm BLL immediately Hospitalize even if asymptomatic Contact PEHSU at Children's Hospital (1-888-347-2632) for immediate consultation on lead toxicity therapy Stop iron therapy prior to chelation Ensure child is discharged to a lead-free environment

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 are currently or have previously been poisoned.*

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 ≥ 4 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 ≥ 4 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 ≥ 20 mcg/dL** or **persistently ≥ 15 mcg/dL with other developmental risk factors**: neurodevelopmental monitoring is needed

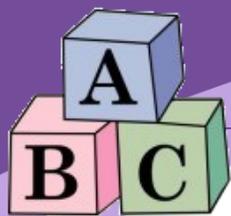
Action Steps

- 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, 1st, 4th, 6th & 7th grades)
- Vigilance for in-attention, distractibility, aggression, anti-social behavior, irritability, hyperactivity, low impulse control & 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



LEAD AND CHILDREN

Children are at a Special Risk for Lead Poisoning

Is My Child At Risk For Lead Poisoning?

The only way to know if your child is poisoned is to get a blood lead test. It is recommended that children be tested for lead at ages one and two. Test your child if exposed to any of these risk factors:

- Living in or visiting a home built before 1978 with lead hazards or ongoing repairs
- Attending a daycare built before 1978 with lead hazards or ongoing repairs
- Spending time with a sibling, relative, or playmate with lead poisoning
- Spending time with an adult who works with lead in a job or hobby (ex. fishing, painting, auto repair)
- Eating or drinking food stored in glazed pottery or leaded crystal
- Using traditional home-remedies & imported products (ex. Kohl, Kajal, Surma, Azarcon, Alarcon, Greta, Pay-loo-ah)
- Swallowing or mouthing toys, small metal charms, keys, trinkets & jewelry
- Playing in contaminated soil

SYMPTOMS OF LEAD POISONING

Most children with lead poisoning **DO NOT** look sick.

NH children are to be tested at age 1 and again at age 2 yrs.

The only way to know if your child has lead poisoning is to get tested.

Some children might experience:

- Stomach aches, headaches, trouble paying attention, developmental delays, behavior issues, problems with eating and sleeping and speech/language delays.

LONG-TERM EFFECTS

Lead can affect all parts of the body and mind



- Poor school performance & lower test scores
- Hearing & speech problems
- Slowed growth & development
- Hyperactivity & aggression problems
- Damage to the brain, kidneys & nerves

PROTECTING YOUR CHILD

Remove the lead source and look out for lead hazards

Lead poisoning occurs when children ingest or inhale lead

- Have your home tested for lead (test soil and water too)
- Use a HEPA vacuum and disposable rags to clean lead dust
- Keep children away from lead paint & dust
- Wash hands, toys & pacifiers often
- Avoid imported foods & candies (i.e. Mexican candies)
- Don't allow children to mouth metal charms, keys, trinkets & jewelry—they may contain lead

Provide early intervention & stimulation

- Enroll children in early childhood education programs such as Head Start, child care, preschool, and play groups to stimulate learning
- Read to & play games with your child



If you live in a rental property...

- Inform your landlord if your child has an elevated blood lead
- Do not remove lead on your own, notify your landlord instead
- Remember, you can NOT be evicted for having a lead poisoned child

Revised December 2018

LEAD POISONING



LEAD AND CHILDREN

What Do Blood Lead Levels Mean for Your Child's Health

Any amount of lead is dangerous and can cause health and behavioral problems at all ages. A blood test is the only way to tell if your child has lead poisoning. All children should be tested at 1 and 2 years old. A test can be done in the doctor's office with a capillary 'finger-stick' blood sample. Depending upon test results, it may need a follow up test with venous blood from arm. **Confirm a capillary blood lead test with a venous test based on schedule below:**

Blood Lead Level (micrograms/deciliter)	Capillary or Venous	When to Retest	What can I do to help?
<5	C	Not necessary unless other risk factors.	<ul style="list-style-type: none"> • Talk to your child's doctor • Feed child foods high in Calcium, Iron & Vitamin C • Wash hands frequently • Clean floor and window sills with disposable wipes or wet mop • Look out for "Take-Home" lead and other sources
	V	Retest children < 12 mos in 3-6 mos as BLL may increase with mobility.	
5-9	C	Confirm within 3 months.	Continue with above AND <ul style="list-style-type: none"> • Control known lead hazards • Keep up good nutrition (Calcium, Iron & Vitamin C) • Consider testing other children in the home
	V		
10-19	C	Confirm within 1 month	Continue with above AND <ul style="list-style-type: none"> • Test siblings younger than 6 yrs. • Ensure child has proper diet • Follow up by NH HHLPPP will provide education, case management, and environmental assessment • Consider developmental evaluation if elevated blood lead levels persist
	V	Retest within 3 months	
20-44	C	Confirm within 1 week	Continue with above AND <ul style="list-style-type: none"> • Remove child from lead hazards
	V	Retest every 1-2 months until <20 mcg/dL	
45 -69	C	Confirm within 48 hours	Continue with above AND <ul style="list-style-type: none"> • Child needs immediate treatment and may need hospitalization • Chelation may be necessary • Ensure child returns to a lead safe environment
	V	Seek immediate medical attention and test weekly afterwards	
≥70	C	Confirm IMMEDIATELY	Continue with above AND <ul style="list-style-type: none"> • TAKE CHILD TO HOSPITAL FOR TREATMENT
	V	Medical emergency, chelation treatment	

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