



Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Dennis R. Schrader, Acting Secretary

## Notice to Maryland Health Care Providers of Changes to Blood Lead Level Testing and Reporting Requirements, and New Resources for Providers and Parents

March 2, 2021

Dear Colleague:

The Maryland Department of Health (MDH) and the Maryland Department of the Environment (MDE) have updated regulations and resources in response to recent changes in Maryland law. The most important changes are:

- Effective October 1, 2019, the legal definition<sup>1</sup> of a “reference level” for blood lead (formerly the “action level” of 10 mcg/dL) in Maryland is **5 mcg/dL** or greater, making the legal definition of an elevated blood lead level consistent with the clinical definition adopted by MDH in 2012.
- Effective July 1, 2020, MDE has new requirements for the blood lead laboratory requisition, and a new requirement to report a blood lead level (BLL) test of **5 mcg/dL** or greater to MDE within 24 hours.
- Revised case management guidelines for health care providers.

### *Changes in laboratory testing requirements*

Providers are reminded that a completed laboratory requisition for childhood blood lead levels must now include the following additional information, as per [changes to COMAR 26.02.01](#) (changes shown in italics):

1. Additional demographic information:
  - *Country of birth and ethnicity;*
  - *Medical assistance identification number, if the child is enrolled in Medicaid or the Maryland Children’s Health Program;*
  - *Provider’s national provider identifier (NPI);*
2. If the draw site is different from the health care provider’s office, the laboratory’s or other facility’s name, address, *telephone number, and facility NPI;*

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<sup>1</sup> House Bill 1233 (Acts of 2019), the “Maryland Healthy Children Act,” changed the reference level of an elevated blood lead (EBL) from 10 µg/dL to a reference level determined by the Centers for Disease Control and Prevention (CDC), currently 5 µg/dL. If the CDC changes this reference level, the threshold value would automatically go into effect in Maryland one year after changes are made by the CDC.

3. All of the following information about the laboratory performing the blood lead analysis:
  - a. Laboratory name, address, telephone number, and *clinical laboratory improvement amendment (CLIA) number*;
  - b. *Laboratory method used to analyze the blood specimen*;
  - c. *The limit of detection for the method used to analyze the blood specimen*; and
  - d. *If reporting a “no result” test result, the limit of detection for the laboratory (“less than” the numeric limit of detection)*;

In addition, laboratories, and clinics performing point of care blood lead testing, must report test results to MDE by the close of business of the next business day for a BLL  $\geq$  5  $\mu$ g/dL.

#### *Changes in the clinical management of children with possible lead exposure*

MDH and MDE have released new [2020 Maryland Guidelines for the Assessment and Management of Childhood Lead Exposure](#). The Guidelines provide guidance on retesting and monitoring the health status of children with a confirmed BLL  $\geq$  5  $\mu$ g/dL both clinically and until all recommended environmental investigations and mitigation strategies have been completed. MDH regulations for childhood blood lead testing ([COMAR 10.11.04](#)), still require all children born on or after January 1, 2015 to be tested for lead at 12 and 24 months, or at least once for a child 24 months or older and younger than 6 years old for whom there is no evidence of a previous blood lead test.

MDH reminds providers that, as an alternative to completing the [Blood Lead Testing Certificate \(Form 4620\)](#) for parents whose children are requesting it for admission to a public pre-kindergarten program, kindergarten, or first grade ([COMAR 10.11.04.05](#)), providers now have the option of instead providing a copy of the child’s lead test report from ImmuNet.

#### *New resources for health care providers and patients affected by lead*

MDH is partnering with the Maryland chapter of the American Academy of Pediatrics to offer up to 3 hours of **free continuing medical education (CME)** to promote continued attention to this important public health problem. To learn more about these services and the free CME, visit the MDH [lead poisoning prevention website](#).

MDH has established [two new programs](#) for children who are enrolled in or eligible for the Maryland Children’s Health Insurance Program (MCHP).

- *Healthy Homes for Healthy Kids* will pay for lead removal in owner-occupied homes, certain rental properties, and other locations where the child spends at least 10 hours/week if it is determined to be the source of the lead exposure. To qualify, a child must be eligible for or enrolled in MCHP, under age 19, and have a recent (in the last 12 months) BLL  $\geq$  5  $\mu$ g/dL. To learn more, contact us at 1-866-703-3266, or [mdh.healthyhomes@maryland.gov](mailto:mdh.healthyhomes@maryland.gov).

- *Home Visiting Program for Children with Lead or Asthma:* Nine local health departments<sup>2</sup> now also provide home visiting services for children with lead poisoning (or moderate to severe asthma) through an MCHP program. Trained environmental case managers and community health workers will provide up to six home visits to assess the home environment for potential lead hazards and, provide education for caregivers, and work with families to reduce or eliminate lead exposure at no cost to the family. A child must be eligible for or enrolled in MCHP, under age 19, and have a BLL  $\geq$  5  $\mu\text{g}/\text{dL}$  in the past 12 months (or moderate to severe asthma). For more information, call us at 1-866-703-3266, or [mdh.healthyhomes@maryland.gov](mailto:mdh.healthyhomes@maryland.gov).

*More information*

MDE, Lead Poisoning Prevention Program:

<https://mde.maryland.gov/programs/Land/LeadPoisoningPrevention/Pages/index.aspx>.

Phone inquiries: 410-537-3825.

Email: [mdclr.mde@maryland.gov](mailto:mdclr.mde@maryland.gov)

MDH Lead program:

<https://phpa.health.maryland.gov/OEHFP/EH/Pages/Lead.aspx>

New MDH programs for children with lead exposure who are enrolled in or eligible for Medicaid/MCHIP:

<https://phpa.health.maryland.gov/OEHFP/EH/Pages/CHIPEnvCaseMgmt.aspx>

Phone inquiries toll-free at 1-866-703-3266

Email: [mdh.healthyhomes@maryland.gov](mailto:mdh.healthyhomes@maryland.gov)

Sincerely,



Clifford Mitchell, MS, MD, MPH,  
Director, Environmental Health Bureau

Enclosure: 2020 Maryland Guidelines for the Assessment and Management of Childhood Lead Exposure

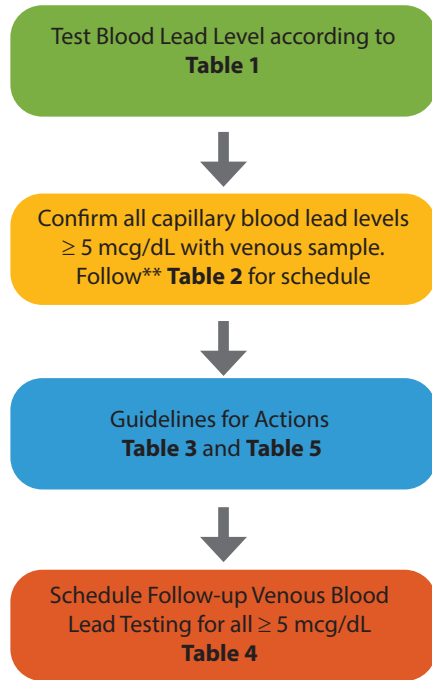
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<sup>2</sup> Baltimore City, and the counties of Baltimore, Charles, Dorchester, Frederick, Harford, Prince George's, St. Mary's, and Wicomico.



# 2020 Maryland Guidelines for the Assessment and Management of Childhood Lead Exposure

For Children 6 Months to 72 Months of Age



**Table 1: Guidelines for Blood Lead Level Testing in Children 6 Months to 72 Months of Age** (COMAR 10.11.04, as of 3/28/2016)

For ALL children born on or after 1/1/15, OR on Medicaid									
6 Months	9 Months	12 Months	15 Months	18 Months	24 Months	30 Months	36 Months	48 Months	60 Months
Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen
Test if indicated	Test if indicated	<b>Test Blood Lead Level</b>	Test if indicated	Test if indicated	<b>Test Blood Lead Level</b>	Test if indicated	Test if indicated	Test if indicated	Test if indicated
For children born before 1/1/15, AND not on Medicaid									
6 Months	9 Months	12 Months	15 Months	18 Months	24 Months	30 Months	36 Months	48 Months	60 Months
Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen
Test if indicated	Test if indicated	Test if indicated	Test if indicated	Test if indicated	Test if indicated	Test if indicated	Test if indicated	Test if indicated	Test if indicated
<b>Screening</b> <ul style="list-style-type: none"> <li>Perform Lead Risk Assessment Questionnaire (questions found in Lead Risk Assessment Questionnaire section of this document)</li> <li>Clinical assessment, including health history, developmental screening and physical exam</li> <li>Evaluate nutrition and consider iron deficiency</li> <li>Educate parent/guardian about lead hazards</li> </ul>									
<b>Indicators for Testing</b> <ul style="list-style-type: none"> <li>Parent/guardian request</li> <li>Possible lead exposure to symptoms of lead poisoning, either from health history, developmental assessment, physical exam or newly positive item on Lead Risk Assessment Questionnaire. (Questions can be found in Lead Risk Assessment Questionnaire section of this document.)</li> <li>Follow-up testing on a previously elevated Blood Lead Level (Table 4)</li> <li>Missed screening: If 12 month test was indicated and no proof of test, then perform as soon as possible after 12 months and then again at 24 months. If 24 month test was indicated and no proof of test, then perform test as soon as possible.</li> <li>For more information about lead testing of pregnant and breastfeeding women, see: <a href="http://www.cdc.gov/nceh/lead/publications/leadandpregnancy2010.pdf">http://www.cdc.gov/nceh/lead/publications/leadandpregnancy2010.pdf</a></li> </ul>									

**Table 2: Schedule for Confirmatory Venous Sample after Initial Capillary Test\*\***

Capillary Screening Test Result	Perform Venouse Test Within
< 5 mcg/dL	Not Required
5 - 9 mcg/dL	12 weeks
10 - 44 mcg/dL	4 weeks
45 - 59 mcg/dL	48 hours
60 - 69 mcg/dL	24 hours
70 mcg/dL and above	<b>Immediate Emergency Lab Test</b>

\*\* Requirements for blood lead reporting to the Maryland Childhood Lead Registry are located at COMAR 26.02.01. Reporting is required for all blood lead tests performed on any child 18 years old or younger who resides in Maryland.

**Table 3: Abbreviated Clinical Guidance for Management of Lead in Children Ages 6 Months to 72 Months** (Full Guidelins in Table 5)

Blood Lead Level	Follow-up Testing	Management
< 5 mcg/dL	On schedule <b>Table 1</b>	<ul style="list-style-type: none"> <li>Continue screening and testing on schedule. Continue education for prevention.</li> <li>If new concern identified by clinician, then retest blood lead level.</li> </ul>
5 - 9 mcg/dL	3 months See <b>Table 4</b>	All of above AND: Investigate for exposure source in enviroment and notify health department. <ul style="list-style-type: none"> <li>For more detail consult <b>Table 5</b></li> </ul>
$\geq 10$ mcg/dL	See <b>Table 4</b>	Consult <b>Table 5</b>

**Table 4: Schedule for Follow-up Venous Blood Lead Testing after Blood Lead Level  $\geq 5$  mcg/dL**

Venous Blood Lead Level	Early follow-up testing (2-4 tests after identification)	Later follow-up testing after blood lead level declining
5 - 9 mcg/dL	1 - 3 months ***	6 - 9 months
10 - 19 mcg/dL	1 - 3 months ***	3 - 6 months
20 - 24 mcg/dL	1 - 3 months ***	1 - 3 months
25 - 44 mcg/dL	2 weeks - 1 month	1 month
$\geq 45$ mcg/dL	<b>As Soon As Possible</b>	<b>As Soon As Possible, based on treatment plan</b>

Seasonal variation in Blood Lead Levels exist, greater exposure in the summer months may necessitate more frequent follow-up.

\*\*\* Some clinicians may choose to repeat elevated blood lead tests within a month to ensure that their Blood Lead Level is not rising quickly. (Advisory Committee on Childhood Lead Poisoning Prevention - CDC 2012)

Table 5: Clinical Guidance for Management of Lead in Children Ages 0 - 6 years						
Confirmed Blood Lead Level (mcg/dL) <sup>1</sup>	< 5	5 - 9	10 - 19	20 - 44	45 - 69	≥ 70
Primary Prevention: parent/guardian education about lead hazards <sup>2</sup>	X	X	X	X	X	X
Medical/nutritional history and physical	X	X	X	X	X	X
Follow-up blood lead monitoring <sup>3</sup>	X	X	X	X	X	X
Evaluate/treat for anemia/iron deficiency		X	X	X	X	X
Home environmental investigation		X <sup>4</sup>	X	X	X	X
Exposure/environmental history <sup>5</sup>		X	X	X	X	X
Coordinate care with local health department		X <sup>6</sup>	X	X	X	X
Nutritional counseling related to calcium and iron intake		X	X	X	X	X
Obtain developmental and psychological evaluation <sup>7</sup>			X	X	X	X
Consult with lead specialist, who will also evaluate for chelation therapy				X	X	X
Consider abdominal x-ray (with bowel decontamination if indicated) <sup>8</sup>				X	X	X
Urgent evaluation for chelation therapy					X	X
Hospitalize for medical emergency						X

<sup>1</sup>Refer to information about confirmation of capillary tests in Table 2.

<sup>2</sup>Includes discussion of pica and lead sources including house paints (before 1978), ceramics, paint on old furniture, soil, foreign travel, traditional folk medicines, certain imported items (candies, food, jewelry, toys, cosmetics, pottery), and parental occupations that can bring home lead dust and debris (e.g., painting, construction, battery reclamation, ceramics, furniture refinishers, radiator repair.)

<sup>3</sup>Refer to schedule of follow-up blood lead testing in Table 4.

<sup>4</sup>Initial confirmed blood lead of 5 - 9 mcg/dL may require home environmental investigation. Contact LHD for more guidance.

<sup>5</sup>Exposure/environmental history to identify potential lead sources. (See screening questions.) Consider Notice of Defect (information at right) for child living in pre-1978 rental property.

<sup>6</sup>Contact LHD for more information about care coordination for blood lead levels of 5 - 9 mcg/dL.

<sup>7</sup>Use validated developmental screen for levels 10 - 19 mcg/dL, such as Ages and Stages Questionnaire (ASQ). Refer children as appropriate for further evaluation. Children with BLL over 20 mcg/dL should be evaluated in consultation with an experienced clinician, specialist, or LHD regarding further evaluation.

<sup>8</sup><https://www.cdc.gov/nceh/lead/advisory/acclpp/actions-blls.htm>

### Lead Risk Assessment Questionnaire Screen Questions:

1. Lives in or regularly visits a house/building built before 1978 with peeling or chipping paint, recent/ongoing renovation or remodeling?
2. Ever lived outside of the United States or recently arrived from a foreign country?
3. Sibling, housemate/playmate being followed or treated for lead poisoning?
4. Was child tested at 12 and/or 24 months?
5. Frequently puts things in his/her mouth such as toys, jewelry, or keys, eats non-food items (pica)?
6. Contact with an adult whose job or hobby involves exposure to lead?
7. Lives near an active lead smelter, battery recycling plant, or other lead-related industry, or road where soil and dust may be contaminated with lead?
8. Uses products from other countries such as health remedies, spices or food, or store or serve food in leaded crystal, pottery or pewter?

### Table 6: Clinical Guidance for Lead Case Closure in Children Ages 0 - 6 years

For children with elevated blood lead levels, case closure will occur after implementation of environmental lead remediation and repeat testing demonstrates a blood lead level below 5mcg/dL. Testing should be repeated every 3 months until at least 2 consecutive tests results with a blood lead level below 5mcg/dL.

**A Notice of Defect** is a written notice that tells the landlord that there is chipping, flaking or peeling paint or structural defect in the home that is in need of repair. A Notice of Defect may also tell the landlord that a 'Person at Risk' (a child under the age of six or a pregnant woman) has a lead level of 5mcg/dL or above and that repairs need to be made in the home.\*

\*As of 7/1/20, the action level in Maryland was lowered from ≥ 10mcg/dL to ≥ 5mcg/dL to align with CDC's reference level. (COMAR 26.16.08.03).

The Notice of Defect must be sent by certified mail, return receipt (be certain to retain a copy of the return receipt) and the rental property owner has 30 days to repair the listed defects. It is illegal for a property owner to evict a tenant or raise the rent for reporting problems and/or defects in the home or that a child has been poisoned by lead. To download a copy of the Notice of Defect form, visit: <https://mde.maryland.gov/programs/LAND/Documents/LeadPamphlets/LeadPamphletMDENoticeOfTenantsRights.pdf>

For more information or assistance with filing a Notice of Defect, contact the Maryland Department of the Environment, Lead Poisoning Prevention Program or the Green & Healthy Homes Initiative.

### Clinical Resources

**Mid-Atlantic Center for Children's Health & the Environment**  
 Pediatric Environmental Health  
 Specialty Unit  
 866-622-2431  
[kidsandenvironment@georgetown.edu](mailto:kidsandenvironment@georgetown.edu)  
<https://kidsandenvironment.georgetown.edu>

**Mount Washington Pediatric Hospital Lead Treatment Program**  
 410-367-2222  
[www.mwph.org/health-services/lead-treatment](http://www.mwph.org/health-services/lead-treatment)

**Maryland Poison Control**  
 800-222-1222  
[www.mdpoison.com](http://www.mdpoison.com)

**American Academy of Pediatrics - Policy Statement: Prevention of Childhood Lead Toxicity**  
<https://pediatrics.aappublications.org/content/pediatrics/138/1/e20161493.full.pdf>

**American Academy of Family Physicians**  
<https://www.aafp.org/afp/2010/0315/p751.html>

### Regulatory Programs and Resources

**Maryland Department of Health**  
 866-703-3266  
[dhmh.envhealth@maryland.gov](mailto:dhmh.envhealth@maryland.gov)  
<http://phpa.dhmh.maryland.gov/OEHFP/EH/Pages/Lead.aspx>

**Maryland Department of the Environment**  
 Lead Poisoning Prevention Program  
 410-537-3825 | 800-776-2706  
<http://www.mde.state.md.us/programs/Land/LeadPoisoningPrevention/Pages/index.aspx>

**Local Health Departments**  
<http://dhmh.maryland.gov/PAGES/DEPARTMENTS.ASPX>

**Center for Disease Control and Prevention**  
<https://www.cdc.gov/nceh/lead/default.htm>

**Green & Healthy Homes Initiative**  
 410-534-6447 | 800-370-5223  
[www.greenandhealthyhomes.org](http://www.greenandhealthyhomes.org)

**National Center for Healthy Housing - Lead Resources**  
<https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/lead>