

Residential Lead Paint: EHS Procedures when Notified of a Lead-Poisoned Child

Blood Lead Levels in Children

A blood lead level tells you how much lead is in your child's body. There is no safe level of lead in the blood, but a small amount of lead can be found in most children's blood due to the pervasiveness of lead in the environment.

Most children have lead levels under 5 micrograms per deciliter of blood ($\mu\text{g}/\text{dL}$).

The Massachusetts Childhood Lead Poisoning Prevention Program (CLPPP) and the Lead Law (105 CMR 460) defines a Blood Lead Level of Concern as a concentration of lead in whole venous blood in a child under six years of age between **5 and 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$)**.

The CLPPP and the Lead Law defines lead poisoning as a medical condition present in a child under six years of age in which the child has a concentration of lead in whole venous blood of **10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) or greater**.

What to do if informed of a Blood Lead Level of Concern or lead poisoning

Upon receiving a call regarding an elevated blood lead level in a child living in a residence at Harvard University, EH&S will inform the caller to:

- Call the University Operations Center at 617-495-5560, and
- Contact their building management representative

If the call is from a Harvard University building or property manager seeking assistance, EH&S will refer them to the CLPPP.

CLPPP
MA Department of Public Health
250 Washington Street, Seventh Floor
Boston, MA 02108
1-800-532-9571 (toll free)
clppp@state.ma.us
www.mass.gov/dph/clppp

The table below provides additional assistance concerning follow-up actions required by the Massachusetts Department of Public Health (MassDPH) and the CLPPP for situations involving elevated blood lead levels. This table was summarized from information available on the MassDPH website.

Type of Follow Up by Blood Lead Level (BLL) for Venous¹ Blood Specimens

(Source: MassDPH <http://www.mass.gov/eohhs/gov/departments/dph/programs/environmental-health/exposure-topics/lead/child-health/test-and-treat/>)

Blood Lead Level	Information/Symptoms	Health Care Provider Follow-Up	Environmental Follow-Up	Testing Schedule
0 - 4 µg/dL	According to the National Health and Nutrition Examination Survey (NHANES)'s blood lead distribution in children, 97.5% of children in the U.S. have a blood lead level between 0-<5 µg/dL	BLL found in most children. No action at MA CLPPP.		
5 - 9 µg/dL	In 2012, the CDC updated its guidelines on blood lead levels in children replacing its earlier 10 µg/dL level of concern with a reference level of 5 µg/dL. This reference level of 5 µg/dL is now used to identify children with blood lead levels that are much higher than most children's levels. (This new level is based on the U.S. population of children ages 1-5 years who are in the highest 2.5% of children when tested for lead in their blood.) The CLPPP defines an elevated level of lead in the blood between 5 and 10 µg/dL	Children with blood lead levels of 5 µg/dL or greater will be required to have follow-up medical care.	A licensed code enforcement inspection may be conducted. If an Order to Correct Violation(s) is issued, owner has 90 days to complete all abatement work on interior dwelling unit lead violations and any interior structural repairs for interim control, and 120 days for all interior common area and exterior abatement and/or containment work.	
≥10 - 14 µg/dL	The CLPPP defines Lead Poisoning as concentration of lead in whole venous blood of 10 micrograms per deciliter (µg/dL) or greater. Most children will not look or act sick. Talk to your doctor about learning or developmental problems.	Children with blood lead levels of ≥10 µg/dL will be required to have follow up medical care.	A licensed code enforcement inspection will be conducted. If an Order to Correct Violation(s) is issued, the owner is no longer eligible for Interim Control and a Letter of Full Compliance is required. The owner will then have 60 days to complete all abatement work on interior dwelling unit lead violations and 90 days for all interior common area and exterior abatement and/or containment work to be completed and documented by a Code Enforcement Lead Inspector	Check BLL within 3 months.
15 - 19 µg/dL	It is important to find and fix the lead hazards in your residence. Have your residence inspected for lead.	Check for iron deficiency. Iron therapy if needed.		Check BLL within 2 months.
20 - 44 µg/dL	Your child may have to stay in the hospital. The doctor may give your child medicine to help get the lead out of their body. This is called "chelation." Some children may have trouble speaking, hearing, or paying attention. Ask your doctor about learning problems. You may need a special education plan for your child.	Check for iron deficiency. Iron therapy if needed. Chelation therapy at 35 - 44 µg/dL.	MA Community Health Worker and hospital social worker services will be offered. Emergency inspection by a State Lead Inspector will be conducted. If lead hazards found, residence must be deleaded.	Check BLL within 1 month.
45 - 69 µg/dL		Medical evaluation (most children are hospitalized). Chelation therapy.		Medical Provider's discretion.
≥ 70 µg/dL		Immediate hospital admission and chelation therapy. Iron therapy after treatment.		Medical Provider's discretion.

¹ This table only pertains to venous test results. Capillary results that are ≥ 10 µg/dL must be retested for confirmation. A venous retest is recommended as best medical practice. If you have any questions please call 1-800-532-9571 or visit the Childhood Lead Poisoning Prevention Program's page at www.mass.gov/dph.

² The CDC has updated its guidelines on blood lead levels in children. The earlier 10 µg/dL level of concern was replaced with a reference level of 5 µg/dL. For more information please visit http://www.cdc.gov/nceh/lead/ACCLPP/blood_lead_levels.htm

³ Community health worker services include: lead hazard reduction education and outreach, translation services, home visits, counseling, and referrals to other agencies such as Early Intervention and the Women, Infants and Children Program (WIC).