

# Technical Bulletin

## Blood Lead Retesting Guidelines for Pediatric Patients



Magellan  
Diagnostics

**Blood lead test results should be shared with the patient's physician for interpretation and to determine when retesting and follow-up care are necessary.**

The CDC has established 5 µg/dL as the new "reference level" for lead in blood, a change from the previously utilized "level of concern" of 10 µg/dL. The reference level is based on the U.S. population ages 1-5 years who are in the top 2.5% of children when tested for blood lead.<sup>1</sup> Blood lead levels (BLLs) at or above 5 µg/dL indicate the need for further action. Not all states have adopted the new reference level. If your local or state regulations still reference a level of concern at 10 µg/dL, comply with the regulations.

### Repeat Testing Guidelines

In general, a venous sample should be obtained for the following:

- Confirmation of an elevated BLL (at or above 5 µg/dL) from a capillary sample.
- Children identified as lead poisoning cases; venous blood is required for the duration of BLL monitoring.<sup>2</sup>

#### Repeat Testing Guidelines<sup>3</sup>

Blood lead level:	Child's age*:	Perform re-test (capillary sample allowed) within:
<5 µg/dL	< 12 months	3 - 6 months
	1-5 years	6 - 12 months
Blood lead level:	Child's age*:	Perform diagnostic test on venous sample within:
5 - 14 µg/dL	1-5 years	1 - 3 months
15 - 44 µg/dL	1-5 years	1 - 4 weeks
>44 µg/dL	1-5 years	48 hours

\*Ensure blood lead levels are checked at both 1 and 2 years of age.

A capillary blood sample that generates an elevated lead level should be confirmed with a venous sample. Venous confirmation samples should be sent to a reference laboratory for analysis.

In cases where the capillary specimen demonstrates an elevated lead level but the confirmation venous sample does not, it is important to recognize that the child may live in a lead-contaminated environment that resulted in contamination of the fingertip. Efforts should be made to identify and eliminate the source of lead in these cases.<sup>3</sup>

**Consult your local public health department, or the CDC for further information on actions to be taken for blood lead results that are 5 µg/dL or greater.**

**Report all blood lead test results to the appropriate local, state or federal agency.**

*Note: Pediatric blood lead testing guidelines are updated periodically. This information was confirmed 12 Oct, 2017. Please check with your local health department to verify your current guidelines.*

#### References

1. Centers for Disease Control and Prevention. (18 May 2012. Web. 26 Sept 2012) What Do Parents Need to Know to Protect Their Children? Retrieved from [www.cdc.gov/nceh/lead/ACCLPP/blood\\_lead\\_levels.htm](http://www.cdc.gov/nceh/lead/ACCLPP/blood_lead_levels.htm). [accessed 12 Oct 2017].
2. Clinical Laboratory Standards Institute. (Oct 2013) C40-A2 Measurement Procedures for the Determination of Lead Concentrations in Blood and Urine; Approved Guideline – Second Edition. (p. 54) [permission granted 11 Jan 2014].
3. Newman, N., Binns, H., Karwowski, M., Lowry, J., Pediatric Environmental Health Specialty Unit (PEHSU) Lead Working Group. (Jun 2013). Recommendations on Medical Management of Childhood Lead Exposure and Poisoning. Retrieved from <http://www.pehsu.net/Library/facts/medical-mgmt-childhood-lead-exposure-June-2013.pdf>. [accessed 12 Oct 2017].