

# Tennessee Childhood Lead Poisoning Prevention Program Screening Guidelines

The Tennessee Childhood Lead Poisoning Prevention Program (CLPPP) screening, testing and follow-up guidelines are based on the latest recommendations of the Advisory Committee on Childhood Lead Poisoning and Prevention of the Centers for Disease Control and Prevention (CDC) and the endorsement of the CDC. More information is available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6120a6.htm>

## Who Should Be Screened?

A lead risk assessment should be performed according to Bright Futures guidelines for children starting at 6 months old. [https://downloads.aap.org/AAP/PDF/periodicity\\_schedule.pdf?\\_ga=2.91740122.1112264329.1665091634-1999710129.1663593103](https://downloads.aap.org/AAP/PDF/periodicity_schedule.pdf?_ga=2.91740122.1112264329.1665091634-1999710129.1663593103)

## Who Should Be Tested?

1. Children at 12 and 24 months old\*
2. Children 36-72 months old without a documented blood lead level\*
3. Children whose parent/guardian requests a blood lead level
4. Children whose parent/guardian answers “yes” or “don’t know” to any questions on the risk assessment questionnaire used at well-child checks between 6-72 months of age or when child’s risk status changes

\*Required for **all** TennCare recipients.

## Testing Guidelines

1. Blood lead test may be done as a capillary finger stick.
2. If the blood lead level (BLL) is 3.5 µg/dL or greater, the level must be confirmed by a venous BLL.

### If the Capillary Blood Lead Level is $\geq 3.5$ µg/dL follow the Recommended Schedule for a Confirmatory Venous Sample

Screening test result (µg/dL)	Time to confirmation testing
3.5-9	0-3 months
10-44	1 week - 1 month*
45-59	48 hours
60-69	24 hours
$\geq 70$	Urgently as emergency test

\*The higher the BLL on the screening test, the more urgent the need for confirmatory testing.

### If the Confirmatory Venous Sample is $\geq 3.5$ µg/dL, follow the Recommended Schedule for Follow-Up Testing <sup>a</sup>

Venous Blood Lead Level (µg/dL)	Early Follow-Up (first 2-4 tests after identification)	Late Follow-Up (after BLL begins to decline)
3.5-9	3 months <sup>b</sup>	6-9 months
10-19	1-3 months <sup>b</sup>	3-6 months
20-24	1-3 months <sup>b</sup>	1-3 months
25-44	2 weeks-1 month	1 month
$\geq 45$	As soon as possible	As soon as possible

<sup>b</sup> Seasonal variation of BLLs exists and may be more apparent in colder climate areas. Greater exposure in the summer months may necessitate more frequent follow-ups.

## Summary of Recommended Actions for Children Based on Blood Lead Level Value

Value	Recommendations
<b>&lt; 3.5 µg/dL</b>	<ul style="list-style-type: none"> <li>• Report results to TN CLPPP.</li> <li>• Provide lead education<sup>1</sup>.</li> <li>• Continue screening per TNCLPPP screening guidelines.</li> <li>• Monitor development during well child visits.</li> </ul>
<b>3.5 - 19 µg/dL</b>	<ul style="list-style-type: none"> <li>• Report results to TNCLPPP.</li> <li>• Perform a complete history and physical exam, assessing the child for signs and symptoms related to lead exposure.</li> <li>• Obtain environmental exposure history to identify potential sources.</li> <li>• Follow-up blood lead monitoring (see guidelines).</li> <li>• Ensure the child does not have iron deficiency. Follow American Academy of Pediatrics (AAP)<sup>2</sup> testing and treatment guidelines.</li> <li>• Provide nutritional education with focus on calcium and iron intake. Refer to WIC<sup>3</sup> as applicable.</li> <li>• Monitor the child's development per AAP guidelines.</li> <li>• Refer to TEIS<sup>4</sup> as applicable.</li> </ul>
<b>20 - 44 µg/dL</b>	<ul style="list-style-type: none"> <li>• Report results to TNCLPPP.</li> <li>• Follow the recommendations for BLL 3.5-19 with addition of the following: Environmental investigation (Venous BLL's ≥ 20 or persistently elevated levels). Abdominal X-ray (if particulate lead ingestion is suspected) with bowel decontamination if indicated. Contact the TN Poison Center (800-222-1222) for guidance regarding management, including oral chelation therapy.</li> </ul>
<b>45 - 69 µg/dL</b>	<ul style="list-style-type: none"> <li>• Follow the recommendations for BLL 20-44, with addition of the following: Perform a complete history and physical exam, including a detailed neurological exam. Abdominal X-ray (if particulate lead ingestion is suspected) with bowel decontamination if indicated. Contact the TN Poison Control Center (800-222-1222) for guidance regarding management, including oral chelation therapy.</li> <li>• <b>Consideration hospitalization if:</b> <ul style="list-style-type: none"> <li>○ Patient home is not lead-safe.</li> <li>○ Source of lead exposure has not been identified.</li> </ul> </li> </ul>
<b>≥70 µg/dL</b>	<ul style="list-style-type: none"> <li>• Follow the recommendations for BLL 20-44, with addition of the following: Hospitalize and commence chelation therapy (following confirmatory venous blood lead test) in conjunction with consultation from a medical toxicologist or a pediatric health specialty unit.</li> </ul>

<sup>1</sup><http://www.cdc.gov/nceh/lead/tips.htm>

<sup>2</sup><https://publications.aap.org/pediatrics/article/126/5/1040/65343/Diagnosis-and-Prevention-of-Iron-Deficiency-and?autologincheck=redirected?nfToken=00000000-0000-0000-0000-000000000000>

<sup>3</sup><https://www.tn.gov/health/health-program-areas/fhw/wic.html>

<sup>4</sup><https://www.tn.gov/didd/for-consumers/tennessee-early-intervention-system-teis.html>

**The following actions are NOT recommended at any blood lead level:**

- Searching for gingival lead lines
- Testing of neurophysiologic function
- Evaluation of renal function
- Testing of hair, teeth, or fingernails for lead
- Radiographic imaging of long bones
- X-ray fluorescence of long bones (except during chelation with EDTA)

**Additional Contact Information**

**Tennessee Department of Health:** <https://www.tn.gov/health/health-program-areas/mch-lead.html> or Call (615) 532-8462  
<https://www.tn.gov/health/cedep/environmental/healthy-homes/hh/lead.html>

**Tennessee Department of Environment and Conservation:** <https://www.tn.gov/environment/toxic-substances-program/lead-hazard-program.html> or Call (615) 532-LEAD or the in-state-only hotline at 1-888-771-LEAD **Lead-based inspectors, Risk**

**Assessors:** <https://www.tn.gov/environment/toxic-substances-program/lead-hazard-program/lead-certification.html>

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