



Requirements and
Recommendations



Assessment and
Testing Methodology



Follow-Up Schedule
and Education

NC Childhood Lead Testing and Follow-Up Manual



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Department of Health and Human Services
Division of Public Health
Environmental Health Section
Childhood Lead Poisoning Prevention Unit

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North Carolina
Minimum Recommendations
Lead Poisoning Prevention
Effective Date: October 1, 1999
Revised Date: October 19, 2015

Distribution of Educational Materials

Educational materials regarding lead exposure should be made available to families of all children less than 72 months of age. Distribution of these materials should occur during all well-child visits. Educational materials are available on the web at <http://nchealthyhomes.com/lead-2/> or by calling the NC Childhood Lead Poisoning Prevention Program (NC CLPPP) at (919) 707-5950.

Assessment for Risk of Exposure

Lead poisoning remains a principle environmental concern for our young children, universal blood lead testing at 12 months and again at 24 months of age (or at first contact between 25 and 72 months if the child has not been previously tested) is strongly encouraged.

Immigrant children: Testing for all immigrant children should be considered at the time of arrival to the United States. Internationally adopted children and refugee children are considered high risk as they may be malnourished. Malnourished children may be at increased risk, especially those deficient in iron, calcium and/or zinc. All refugee children 6 months to 16 years of age to the United States should be tested at the time of arrival and again after 3-6 months.

Coordinated Approach to Testing

Note: Local health departments should take the initiative in assuring a coordinated approach to the universal blood lead testing of young children participating in Health Check (Medicaid), Health Choice, or WIC as well as refugee children. All primary care providers should be included in this process.

At a minimum, for children who are not required to be tested, the "EHS 3958: Lead Risk Assessment Questionnaire" should be administered on all children at 12 months and 24 months of age or at first contact between 25 and 72 months if the child has not been previously assessed or does not meet the above criteria. The questionnaire protocol determines those children who should receive blood lead testing at those ages. Questionnaires are available at <http://ehs.ncpublichealth.info/forms.htm> or by calling the NC CLPPP at (919) 707-5950.

Blood lead testing and risk assessment (when indicated) should occur during well-child visits to the child's primary care provider. Referral solely for risk assessment or blood lead testing is strongly discouraged.

Testing Methodology

Direct blood lead measurement is the screening test of choice. Finger stick, capillary blood specimens are adequate for initial testing and re-testing provided proper washing of the child's hands with soap and water before the finger stick to minimize the risk of contamination from lead residue on skin. Venous blood specimens should be collected for confirmation of all blood lead test results $\geq 5 \mu\text{g/dL}$.

Please note: Blood lead test results are rounded off to a whole number for comparability with results reported from other laboratories and for submission to the Centers for Disease Control and Prevention, National Surveillance System. For example, test results between 4.5 to 4.9 $\mu\text{g/dL}$ are rounded off to 5 $\mu\text{g/dL}$.

The State Laboratory of Public Health offers analysis of blood specimens from all children less than six years of age as well as refugee children less than 16 years of age at no charge to the Medicaid or N.C. Health Choice (NCHC) beneficiary. Providers are encouraged to use the State Lab as it expedites test result reporting.

Point-of-Care (POC) Blood Lead Analyzers

The Clinical Laboratory Improvements Amendments (CLIA) designates facilities that use POC blood lead analyzers (e.g. LeadCare[®] II) as laboratories. As such, they are required to report all blood lead test results for children less than six years old to the NC CLPPP per NC General Statute § 130A-131.8. **Laboratory reports.**, even if determined in a clinical setting.

Medical and Environmental Response to Test Results

An outline of medical and environmental responses to test results can be found in the **Quick Reference Section** or for more detail, **Chapter 4 (Case Management and Follow-up)**. This outline is not intended to replace professional judgment, which must be based on the blood lead level, the presence of symptoms and other circumstances particular to an individual child in question.

Reference and background information can be found on the Lead- Publications website of the Centers for Disease Control (<http://www.cdc.gov/nceh/lead/publications/default.htm>).

QUICK REFERENCE GUIDE

Diagnostic Testing Schedule

Initial Test Result ($\mu\text{g}/\text{dL}$)	Perform Diagnostic Test on Venous Blood Within:
5-9	3 months
10-19	1 month
20-44	1 week
45-59	48 hours
60-68	24 hours
≥ 70	Immediately, as an emergency lab test

FAQs about the 3651 Form (Exposure History of Child with Elevated Blood Lead Level)

How do I get the form? You can copy the form located in the Appendix of this manual or print it from the Children's Environmental Health Program's website at the address below.

<http://ehs.ncpublichealth.info/forms.htm>

When do I complete the form? The form should be completed when a child is confirmed at a blood lead level of $\geq 5 \mu\text{g}/\text{dL}$ (i.e. diagnostic test result is $\geq 4.5 \mu\text{g}/\text{dL}$).

How is the form used? The form is used to take a child's environmental history, document blood lead test results and to identify and educate the family about sources of lead exposure.

The form may also be used to refer a child for environmental follow-up by sending a copy to Environmental Health at the local health department. All children who meet the legal definition as having an Elevated Blood Lead Level (EBL) or Confirmed Lead Poisoning (CLP) per G.S. § 130A-131.7 should be referred for environmental follow-up. Contact information for local environmental health specialists can be found at the link below.

<http://ehs.ncpublichealth.info/docs/ehsdir2015.pdf>

Where do I send the form? If the diagnostic test result confirms that the child has a blood lead level $\geq 5 \mu\text{g}/\text{dL}$, completed forms may be sent via fax to (919) 841-4015 or mail to Children's Environmental Health Unit; NC DHHS, Division of Public Health; 1934 Mail Service Center; Raleigh NC 27699-1934. *NC LEAD users may also scan and attach the completed 3651 form to the Child Event in the NC LEAD System.*

If the child meets the legal definition as having an EBL or CLP a copy of the form should be sent to Environmental Health professionals at the local health department to refer the child for environmental follow-up.

Still have questions? Please call (888) 251-5543 and ask to speak to someone from Childhood Lead Poisoning Prevention.

QUICK REFERENCE GUIDE

FAQs about Childhood Lead Poisoning Surveillance Reports

What is the purpose of the Surveillance Report? To let you know that these children have at least one blood lead test result $\geq 5 \mu\text{g/dL}$ and need diagnostic (i.e. confirmation) or follow-up testing and to assure that NC CLPPP has received all blood lead test results for each child. The report also lists children who should be referred to Environmental Health at the local health department for environmental follow-up.

How do I get a Surveillance Report? NC LEAD users can print a Surveillance Report by clicking the “reports” icon after logging into the NC LEAD system. If you do not have access to NC LEAD, you can request a surveillance report via email nleadhelp@lists.ncmail.net or phone toll free at (888) 251-5543 and ask to speak to someone in the Childhood Lead Program.

What do I do with this report? When you get a report please check the spelling of names and date of birth information for children listed on this report. Records are matched by name and date of birth to produce this and other reports. If there is an error, blood lead records for children may be missing. If a test result is missing from the report, please fax a copy of the missing laboratory report to our secure fax number at (919) 841-4015.

Do I need to send laboratory reports for a child who is retested? According to state law, laboratories are required to report all lead test results for children electronically. Health care facilities that use point of care (POC) blood lead analyzers (e.g. LeadCare II) are also considered laboratories and are responsible for reporting blood lead test results electronically to NC CLPPP. Examples of acceptable electronic file formats are any spreadsheet or database format including .xls, .xml, and .acddb. Please contact Kim Gaetz at (919) 707-5953 to set up secure electronic reporting for your POC laboratory. If you send blood samples to an outside laboratory for analysis, the laboratory should report these results to NC CLPPP directly. However, if you notice a test result missing from the surveillance report, please fax a copy of the missing laboratory report to (919) 841-4015 or mail it to Children’s Environmental Health Program; NC DHHS, Division of Public Health; 1934 Mail Service Center; Raleigh NC 27699-1934.

Why are children listed who have moved or been reported as lost to follow-up? It is not unusual for a child who has moved to return to the state. Likewise, a child reported as lost to follow-up sometimes turns up again. By continuing to list these children on the report, it serves as a reminder that should they show up in the system again, they are still in need of clinical follow-up. If the child shows up in another county or is tested at another clinic, the child’s information will move off the report and show up on the other county/clinic surveillance report. If you have notified NC CLPPP that a child has moved or is lost to follow-up, this information should be listed on the report under Additional Comments.

How do I get a child listed as lost to follow-up? It is recommended that a certified letter be sent to the child’s last known address to document efforts to bring the child back in for follow-

up. You may also try contacting the family's local health department, Social Services or the WIC Program to see if they can provide additional information. If these efforts fail to get the child back in for follow-up services, you can notify the NC CLPPP that the child is lost to follow-up via phone (888) 251-5543, fax (919) 841-4015 or mail Children's Environmental Health Program; NC DHHS, Division of Public Health; 1934 Mail Service Center; Raleigh NC 27699-1934.

Still have questions? Please call (888) 251-5543 and ask to speak to someone in the Childhood Lead Program.