

Child Case Management

Types of Lead Blood Tests:

○Capillary

- finger stick
- heel stick



○Venous

- from your arm



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Child Case Management

- What does it involve?
- What is the reference value: an overview of the current "Requirements and Guidance for Childhood Lead Screening by Health Care Professionals in CT"?
- What are a Local Health Department's Responsibilities?
- Who is supposed to do it?

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BLL Notification to DPH

○ All blood lead levels/test results are required to be reported to DPH from Laboratories

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BLL Notification to LHD

- Laboratories are also required to report any BLLS $\geq 10 \mu\text{g/dL}$ to local health departments within 48 hours
- PCPs are required to send the Reportable Disease Confidential Report Form (PD-23) for venous BLLS $\geq 15 \mu\text{g/dL}$

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Requirements and Guidance for Childhood Lead Screening by Health Care Professionals in Connecticut Lead Poisoning Prevention and Control Program
Revised April 2013

www.ct.gov/dph

A. Universal Blood Lead Testing is Mandated

Test children:

- Between 9 months and 36 months of age, each year for elevated blood lead levels
 - Most providers test at 12 months and 24 months of age
- Between 36-72 months of age, if not previously been tested, regardless of risk
- < 72 months of age, with developmental delays (especially if associated with pica)

B. Diagnostic Testing and Follow-up

Timetable for Confirming Capillary (Screening) Blood Lead Results with a Venous Blood Lead Test*

If result of screening test ($\mu\text{g/dl}$) is	Perform Venous Blood test within:
5-19	3 months
20-44	1 month-1 week*
45-59	48 hours
60-69	24 hours
≥ 70	Immediately

*The higher the result on the capillary test, the more urgent the need for venous testing.

Schedule for Follow-up Venous Blood Lead Testing for Children with an Elevated Blood Lead Level*

Blood Lead Level ($\mu\text{g/dl}$)	Early follow-up (¹ 1 st -2 nd tests after identification) test within:	Late follow-up (after BLL begins to decline) test within:
5-14	3 months ²	6-9 months
15-19	1-3 months ²	3-6 months
20-24	1-3 months ²	1-3 months
25-44	2 weeks - 1 month	1 month
> 45	As soon as possible	Chelation and follow-up

Requirements and Guidance for Childhood Lead Screening by Health Care Professional in CT

A: Universal Blood Lead Testing is Mandated

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- o Between 9 months and 36 months of age, each year
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Requirements and Guidance for Childhood Lead Screening by Health Care Professional in CT

B: Diagnostic Testing and Follow-up

Timetable for Confirming Capillary (Screening) Blood Lead Results with a Venous Blood Lead Test*		Schedule for Follow-up Venous Blood Lead Testing for Children with an Elevated Blood Lead Level†		
If result of screening test (µg/dl) is	Perform Venous Blood test within:	Blood Lead Level (µg/dl)	Early follow-up (1 st 2-4 tests after identification) test within:	Late follow-up (after BLL begins to decline) test within:
5-19	3 months	5-14	3 months ^a	6 - 9 months
20-44	1 month-1 week*	15-19	1 - 3 months ^a	3 - 6 months
45-59	48 hours	20-24	1 - 3 months ^a	1 - 3 months
60-69	24 hours	25-44	2 weeks - 1 month	1 month
≥ 70	Immediately	> 45	As soon as possible	Chelation and follow-up

*The higher the result on the capillary test, the more urgent the need for venous testing.

†Seasonal variations of BLLs exists and may be more apparent in colder climates. Greater exposure in the summer months may necessitate more frequent follow ups.
^a Some case managers or PCPs may choose to repeat blood lead tests on all new patients within a month to ensure that their BLL is not rising more quickly than anticipated.

Requirements and Guidance for Childhood Lead Screening by Health Care Professional in CT

B: Diagnostic Testing and Follow-up

- o If a capillary blood lead test is elevated (≥5 µg/dL), confirm with a venous blood lead test
- o Children with an elevated venous blood lead test require additional follow-up
- o Children should be tested according to schedule above until BLL is below the reference value of 5µg/dl
- o Providers can contact one of Connecticut's Regional Lead Treatment Centers for guidance

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Requirements and Guidance for Childhood Lead Screening by Health Care Professional in CT

C: Provide Anticipatory Guidance to Families

- o Provide educational information about lead poisoning
- o Written materials, along with verbal education should be provided the family's primary language
- o Resources available at www.ct.gov/dph

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Requirements and Guidance for Childhood Lead Screening by Health Care Professional in CT

D: Risk Assessment

- o In addition to testing children at the recommended time intervals, at each well-child visit, health care providers shall evaluate children 6 months to 72 months of age for risk of lead exposure using the risk assessment questions found on the screening guidelines

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D: Risk Assessment

NOTE: Blood lead testing shall also be considered for any child regardless of age, with:

- o Unexplained seizures, neurologic symptoms, hyperactivity, behavior disorders, growth failure, abdominal pain, or other symptoms consistent with lead poisoning or associated with lead exposure;
- o Recent history of ingesting, or an atypical behavior pattern of inserting, any foreign object (even if the foreign object is unleaded) into a body orifice

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Local Health Departments Case Management Responsibilities

- Initiate management of a BLL:
 - $\geq 5 \mu\text{g/dL}$ (venous)
 - $\geq 10 \mu\text{g/dL}$ (capillary)
- Track all BLL increases and decreases
- Generate and mail template letters from LSS
- Provide education to guardians

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Capillary BLLs $\geq 5 \mu\text{g/dL}$

- A follow-up test reminder letter should be sent to the guardians of a child that has a capillary BLL from 5-9 $\mu\text{g/dL}$
- Pediatricians are required to provide guardians with anticipatory guidance
 - Local health departments (LHD) are not required to send educational materials for capillary BLLs 5-9 $\mu\text{g/dL}$

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Venous BLLs $\geq 5 \mu\text{g/dL}$ Capillary BLLs $\geq 10 \mu\text{g/dL}$

- Educational materials must be provided to the guardians of any child that has a **venous BLL $\geq 5 \mu\text{g/dL}$ and/or a capillary BLL $\geq 10 \mu\text{g/dL}$**
- Educational information packet can be downloaded from the DPH website
 - Packet materials comply with the statute

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Venous BLLs \geq 15-19 $\mu\text{g}/\text{dL}$ taken $>$ 90 days apart

- The local health department is responsible for performing a **comprehensive lead inspection**
- Need to initiate contact within 5 working days
- Educational materials must be provided

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Venous BLLs \geq 20 $\mu\text{g}/\text{dL}$

- Need to initiate the **epidemiological investigation** within 5 working days
- Epidemiological investigation consists of a comprehensive lead inspection and completing the epidemiological form
- All related investigation information must be entered in Lead Surveillance System (LSS)

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Confirmatory Test Schedule

If result of capillary test ($\mu\text{g}/\text{dL}$) is	Perform Venous Blood test within:
5-19	3 months
20-44	1 month-1 week
45-59	48 hours
60-69	24 hours
\geq 70	Immediately

The higher the BLL on the capillary test, the more urgent the need for confirmatory testing

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Venous Re-test Schedule

Blood Lead Level (µg/dl)	Early follow-up (1 st 2-4 tests after identification) test within:
5-14	3 months
15-19	1 - 3 months
20-24	1 - 3 months
25-44	2 weeks - 1 month
> 45	As soon as possible

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Other Medical Testing

- **Zinc Protoporphyrin (ZPP)**
 - Reflects average lead level over the previous 3-4 months
 - Child normal range ZPP usually below 34
 - Can be early indicator of iron deficiency
 - Can indicate chronic lead exposure
- **Abdominal radiograph (X-ray)**
 - Lead foreign bodies in gastrointestinal tract

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Some Important Things to Know and Consider.....

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Child's Individual Case File Should Contain:

- o All BLL results
- o The Epidemiological Investigation Form (if required)
- o All Correspondence
 - o Letters, contact attempts, notes of telephone conversations
- o All child information

*** Child information is CONFIDENTIAL ***

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Key Points in Documentation

- o Document dates, times and type of contact made with the PCP & family
- o Confirm that educational material provided is understood
- o Monitor compliance with follow up care and re-testing

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Relocation

If a child relocates: Within your jurisdiction

- o Risk assessment at new address prior to child moving

If a child relocates: Out of your jurisdiction

- o Notify new local health department prior to child moving

Cases are shared between towns in the LSS

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Problems with retesting

- If PCP is not following guidelines, notify the Lead and Healthy Homes Program
 - Request RLTC to contact PCP
- If guardians are refusing to get child re-tested as needed refer case to DCF for medical neglect
 - The DCF referral number is 1-800-842-2288

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Case Closure Criteria

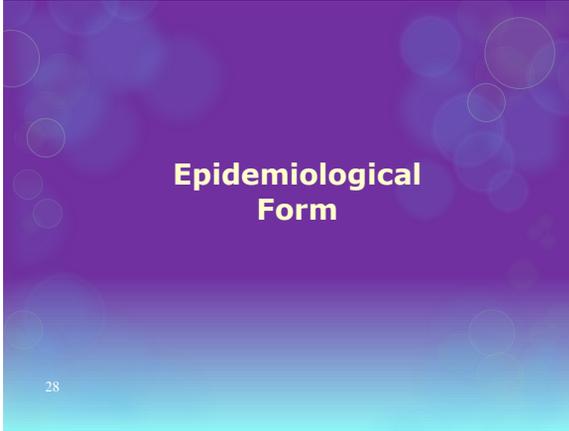
1. Environmental case closed and BLL drops to a venous level of < 5 µg/dL
2. Child relocates:
 - Within CT
 - Case will be shared with new LHD
 - Interdepartmental referral form
 - Out of CT
 - Notify CT DPH
 - Contact State Lead Program
- Close case

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Case Closure Criteria

- 3.) Administrative closure
 - *not to be used often*
 - Three separate unsuccessful documented attempts to locate family, can close case with DPH permission
 - *(MD does not know where family is, no one lives at house, no working phone, mail undeliverable, etc.)*

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Epidemiological Form

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Epidemiological Form

- Questionnaire for a confirmed lead case of >20 µg/dL
- Identify sources of lead poisoning, review of potential sources of lead, summary of pertinent information
- Confidential health data document
- Must use current version (on our website)

All Required Epidemiological Investigation Form data must be entered into the LSS

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