

LEAD POISONING

LEAD TESTING QUICK GUIDE

With LeadCare® II Analyzers

Using LeadCare® II Analyzers

Supplies Needed for Testing

- ☐ LeadCare® II Test Kit
- ☐ Sterile Lancet
- ☐ Alcohol Wipe
- ☐ Gauze pads
- ☐ Bio-hazard container
- ☐ Disposable gloves
- ☐ Lab coat & safety glasses
- ☐ Band-aids®
- ☐ Absorbent cover for supplies to be placed on
- ☐ Soap & water to clean collection site
- ☐ Neutralizing Solution
(7.5% Sodium Bicarbonate NaHCO_3)

Calibrating

Calibrate your analyzer to the lot number in use per manufacturer instructions

Calibrate with key and button:

- The first time you use the analyzer
- Each time you use a new test kit
- When the analyzer displays a recalibration message

Collecting Capillary Specimens for Lead

Personal, Patient and Area Prep

1. Designate a clean work area dedicated to blood lead testing.
2. Insure supplies to be used, and packaging, are lead-free.
(i.e. alcohol swabs, gauze pads, paper towels, disposable gloves)
3. Handwashing is required. Alcohol swabs **do not** remove lead.
4. If sink is not available, soap and water solution dispensed from a goose-neck squirt bottle, may be used to thoroughly rinse designated finger.



Testing

1. Scrub area to be punctured with soap & water. If water is not available, thoroughly rinse designated finger with soap and water solution dispensed from a goose-neck squirt bottle. (Note: Alcohol swabs do not remove lead.)
2. Clean area to be punctured with the alcohol pad & dry with gauze pad.
3. Using a lancet, puncture the finger pad to the side of the center.
4. Wipe away the first drop of blood.
5. Hold the heparinized capillary tube almost horizontally, with the green band on top, fill to the 50 µL black line. Filling stops when the blood reaches the black line.
6. Remove the excess blood from the outside of the tube with a clean gauze pad. Use a downward motion to wipe excess blood from the capillary tube.
7. Dispense blood sample into treatment reagent vial. Invert the treatment reagent/blood mixture 8-10 times to mix the blood.
8. Insert a sensor into the LeadCare® II analyzer until it beeps. Use transfer dropper to deposit sample onto the "X". The test will automatically begin. After 3 minutes, the analyzer will beep again to indicate the test is done. Record the result on the display window.
9. Report all results. "Low" in the display window indicates a result less than 3.3 mcg/dL and must be reported as "less than (<) 3.3 mcg/dL".

Disposal

1. Use an estimated four drops (40µL ea.) of 7.5% sodium bicarbonate (NaHCO_3) neutralizing solution, to neutralize remaining contents in reagent vial to a pH between 2.0 - 12.5.
2. Dispose this along with other materials in biohazard container.

QUESTIONS ON REPORTING

1-603-271-3968

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NH Department of Health & Human Services, Division of Public Health Services

1-800-897-LEAD or LeadRN@dhhs.nh.gov

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Troubleshooting for LeadCare® II Analyzers

Common issues, retesting, and information on venous confirmations

Child less than 1 year old

- Do a heel puncture. If difficulty arises with obtaining a specimen from the heel, use the large toe.



Unexpected Results

- Please refer to the Troubleshooting section of your LeadCare® II User's Guide.
- Elevated results may result from sample contaminated with lead from skin's surface. Proper handwashing with soap and water is critical first step during the collection procedure.
- Result of 45 or greater (including HIGH result on analyzer)
 - ➔ **Wash hands *again*** with soap and water.
 - ➔ **Re-test** with a new, second specimen.
- Specimen may have had clotted blood.
- The analyzer has been transported and has not warmed up to room temperature.
- Mix blood with treatment reagent immediately, and run test within 48 hours, or refrigerate for up to 7 days.

Any result equal to or exceeding 5 mcg/dL or uncertainty in validity of the test

- Refer patient for confirmatory venous testing

If receiving a continuous error message

- Contact LeadCare® II Analyzer Product Support at **1-800-275-0102**

Things to Remember

- Run Controls according to manufacturer instructions.
- The accuracy of the test depends on **handwashing prior** to sample collection and filling the capillary tube properly.

CONFIRM with VENOUS TEST

<5 mcg/dL

- Confirmation not necessary unless other risk factors.
- Test child <12 months in 3 - 6 months, as BLL may increase with mobility.

5 - 9 mcg/dL

- Venous confirmation within 1 month

10 - 19 mcg/dL

- Venous confirmation within 2 weeks

20 - 44 mcg/dL

- Venous confirmation within 1 week

45 - 64 mcg/dL

- Re-Test:** Wash child's hands with soap and water. Collect new sample and retest. If same results: confirm within 48 hours*

65 mcg/dL or greater or result of 'HIGH' on display

- Confirm BLL immediately - emergency test.
- Contact NH Lead RN: 1-800-897-5323

*Note: No STAT PB venous available in NH

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