



Hygienic Laboratory

The University of Iowa

Blood Lead Screening

Submissions Requirements

- Tubes should be filled as close to the fill-mark as possible without overfilling.
- Clotted specimens cannot be analyzed – MIX WELL to allow anti-coagulant (EDTA) to work.
- UNLABELLED SPECIMENS WILL NOT BE TESTED
- A completed Blood Lead Test Request Form must accompany specimen.

Specimen Collection and Handling

Specimens are easily contaminated with lead, so certain precautions are required during the collection process for a valid result. The clinic area, and the collector's clothes must be as clean and dust free as possible. The collector must wear gloves and a clean lab coat throughout the procedure.

Acceptable collection devices are:

- Tubes with EDTA (lavender top).
- Capillary collection containers such as CB-300, Microvette, or similar tubes are acceptable for screening only and must have a venous specimen submitted for confirmation of elevated levels. Follow manufacturer's instructions for collection.
- Venous samples are acceptable for screening and are required for follow-up samples on patients found to have elevated capillary lead levels.

With each batch of samples submitted, one unused sampling container **MUST** be submitted as a quality control check for contamination.

Capillary (Finger stick) Collection Materials Needed:

- Disinfectant soap. Something plain without deodorant or added chemicals.
- Paper towels
- Alcohol swabs
- Sterile gauze pads (2x2)
- Examination gloves (Powderless)
- Lancets. The type of lancet is not important as long as it is clean and sterile.
- Collection containers. These will be supplied by the laboratory.
- Adhesive bandages.
- Biohazard waste containers. Trash bags suitable for medical waste and a "sharps" container for disposal of the lancets.
- Barcode tube labels, barcode data form labels and laboratory test request forms. These will be supplied by the laboratory or at WWW.UHL.UIOWA.EDU if you have web access.
- Shipping containers. Containers are supplied by UHL that comply with Postal Services regulations for shipping body fluids.

Blood Collection:

- Wash child's hand with warm water and soap. Gentle scrubbing will stimulate circulation to the fingers. Wrap hand in paper towel to prevent recontamination. Keep wrapped until you are ready to the finger stick.
- Set up supplies on a clean surface.
- Some have found it useful to hold back the other fingers when holding the child's finger for puncture.
- Stick finger slightly lateral to the center of the fingertip. Wipe off the first drop of blood with gauze. Gently massage finger behind first knuckle and hold at first knuckle joint.
- DO NOT MILK the BLOOD OUT. This can result in dilution of the blood and false negative results.



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- If a Hematocrit is needed, take it before messaging of finger for lead sample.
- Blood should bead, if hand is low (below heart level, flow will be better).
- Fill the container to the mark on the tube. **DO NOT OVERFILL OR UNDERFILL.** This could result in clotting of the sample and sample will be rejected.
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Complete Test Request Form

Complete a Blood Lead Test Request Form with the following information:

- Patient Name (Last, First), Birth date, SSN (if available)
- Address (street address, city, state, zip code)
- Phone number, Gender, Race, Ethnicity
- Specimen Type (Capillary or Venous), Collection Date
- Test Type (Initial or Repeat), Risk (if known)
- Medicare/Medicaid Number (if Title XIX or other applicable program)*
- Insurance Information (if applicable)
- Codes for IDPH or other programs put in the Medicare/Medicaid space.

***NOTE: If the patient is covered by Title XIX, the patient's Medicaid number is required. If payment is denied for any reason, the charges will be invoiced to the submitting clinic**

Each sample must have a label with the patient name or a barcode label from the laboratory. The barcode label from UHL is in two parts. The portion with the number only is to be applied to the blood collection tube. The remaining portion of the barcode label is applied to the corresponding patient data form in the space provided.

Shipping Instructions

- Pack the specimen(s) in the small bag along with the absorbent pad. Place that bag with the specimen in the Styrofoam container and tape closed. Place the Styrofoam container and the Test Request Form(s) into the cardboard mailer and **SEND TO IOWA LABORATORY COMPLEX in Ankeny (See address below).**
- Do not batch samples longer than a few days and refrigerate specimens until you send them to UHL.
- Results will be reported to the submitter only.

Venous Sample Follow-Ups

Venous sampling is required when an initial finger stick sample is $\geq 15 \mu\text{g}/\text{dL}$.

Lavender top (EDTA) vacutainer or equivalent should be used.

If your facility is not equipped to draw the venous sample and must be referred to another clinic, laboratory, or Doctor's office, please send the following with the patient:

- UHL test request form for Blood Lead (Data Form) with your facility's bar code/information. Fill out completely as possible (except for date of collection).
- Instructions for collection of blood for lead testing.
- Bar code labels for the sample tube and data form.
- Mailer.

Note: If the laboratory or Doctor's office uses their own data form the result will be sent to them. HIPAA requires that test results are provided only to the submitter listed on the data form. This could cause a delay in getting the result back to you.

Contact Information

If you have any questions, please call 515/725-1652 or 515/725-1600 and speak to Patty Rose, Steve Bernholtz or Don Simmons. For pre-printed test request forms call 515-725-1647 or go to <http://www.uhl.uiowa.edu/kitsquotesforms>