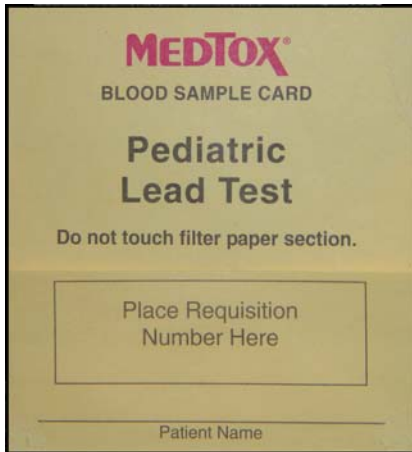


Collection of Fingertick Whole Blood on Filter Paper for Blood Lead Determination



Collection technique is of primary importance when obtaining samples for blood lead determination. Lead is everywhere in the environment. Great care must be taken to remove lead from the hands of the patient and collection personnel and to prevent contamination from the environment.

The following technique will produce a sample that is free from contamination and adequate for optimum analysis.

Note: Collection area should be clean and free of dust.

1. **Fill out requisition.** Fill out all information on the laboratory requisition form. All patient information must be provided in order to be in compliance with state lead reporting guidelines. Accurate billing information must also be provided.
2. **Wash hands.** Thoroughly wash hands with soap and water, dry with a paper towel and don gloves. Instruct or assist patient in thoroughly washing hands with soap and water and drying with a paper towel. Once hands have been washed, instruct the patient not to touch anything. The hands of small children should be held at the wrist to prevent contamination.
3. **Prepare collection supplies.** Open the flap of the sample card and lay it on a flat surface. Take care not to touch any portion of the white filter paper or the internal surface of card (shiny side).
Note: Do not fold flap of sample card under the filter paper—the external surfaces of the card must be considered potentially contaminated.
4. **Prepare finger.** Isolate desired finger on patient's hand and thoroughly scrub tip of finger with an alcohol prep pad. Let the finger air dry for 30 seconds.
5. **Puncture finger.** Use a lancet to pierce the skin of the prepped finger. Wipe off the first drop of blood with sterile gauze.
6. **Collect sample.** Allow a large blood drop to accumulate and fall onto the collection card in the area of one of the printed circles. The blood drop should fall freely to the paper--DO NOT allow the finger to touch the paper. The blood spot should be the approximate size of the printed circles. Collect a second blood spot in the second circle in the same manner. The blood spots must be of adequate size for testing to be performed.
7. **Check sample.** Examine the reverse side of the filter paper to make sure blood has soaked through to the back. Blood that has been smeared on the surface of the paper does not penetrate the filter paper and cannot be tested.
8. **Identify sample.** After an acceptable sample has been obtained, peel the bar-coded sticker from the requisition and place it in the indicated area on the sample card.
Note: Samples received with no identifying information on the card cannot be tested (identifying information consists of either the bar code label OR a name or identification number that matches the name/ID given on the requisition).
9. **Dry sample.** Allow the blood spots to dry for 2 to 5 minutes, and then place the sample card into a plastic bag and seal.
Note: Samples received wet (this occurs when sample card is placed immediately into sealed bag or when the card is saturated with too much blood) cannot be tested.
10. **Send sample to lab.** Place the white copy of the requisition and the sealed bag with the labeled sample card into the postage-free envelope.

Filter Paper Lead Samples

Acceptable Samples

Front



Back

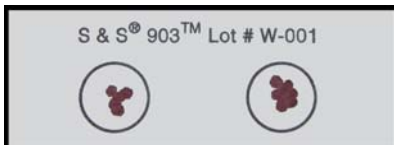
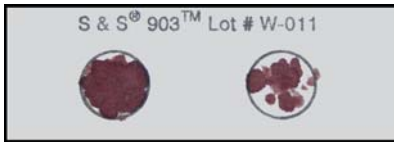


Optimal Sample: Free falling drops of blood will produce spots that soak through uniformly to back side of paper. Two spots provide adequate sample for complete analysis.

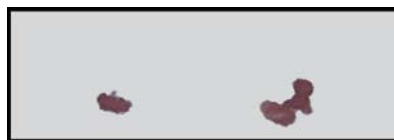
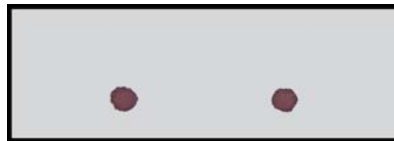
Sampled Card: This card has been sampled for analysis. Two punches are taken for initial analysis; up to six punches may be necessary to report a final result for samples initially ≥ 10 ug/dl. Areas that are sampled must have soaked through to back side of filter paper.

Unacceptable Samples

Front



Back



Insufficient Specimen Collected: Blood drop not allowed to accumulate to adequate size to fall freely. Blood drop was touched to filter paper.

Overly Saturated or Wet Filter Paper: Sample does not dry and cannot be punched.

Blood Smeared on Filter Paper: Finger surface touched to filter paper; blood spot does not soak through to back side.

Non-Homogenous Sample: Spots are not uniform in appearance; possible contamination with hand soap, lotion, or latex powder or sample collected after blood has begun to clot.

Transferred Sample: Capillary tube or other device was used to transfer sample; spots do not soak through to back side of filter paper.

Filter Paper Disrupted: Capillary tube or other device was used to transfer sample; front of card has been scratched or disrupted.