



BLOOD LEAD SPECIMEN COLLECTION AND SHIPPING GUIDANCE FOR WIC PROGRAM PARTICIPATION

Indiana State Department of Health

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The Capillary Procedure

- 1.) Identify patient (CLSI-GP42-A6 §8.1.3)
- 2.) Wash hands before opening equipment box
- 3.) Cover clean work surface with paper towels from dust-proof supply box
- 4.) Place the following items (Figure 1) on the paper towel for each child being tested:
 - Gauze
 - Alcohol wipe
 - Lancet (blade style)
 - Filter paper card
 - Soap
 - Powder-free gloves

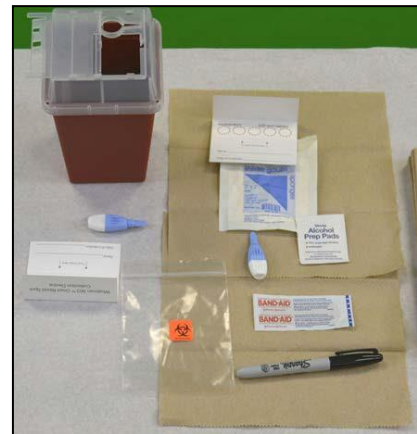


Figure 1. Capillary collection supplies

Filter Paper Cards

- 1.) Completely label filter paper card (Figure 2) with:
 - a. Child's full name
 - b. NOTE: each card is labeled with a number, this number is the SPECIMEN NUMBER which is entered into LIMSNet by the laboratory
- 2.) Wash child's hands with soap/water; dry with non-recycled paper towel from dust free box
 - a. If soap and water is not an option at your clinic, cleanse child's hand/heel thoroughly with alcohol
- 3.) Do not allow child to touch anything afterward to prevent contamination
- 4.) Open flap of filter paper card (Figure 3), lay on flat surface
 - a. Do not touch any part of the filter paper or inside cover (shiny part) to avoid contamination
 - b. Do not fold flap under the filter paper

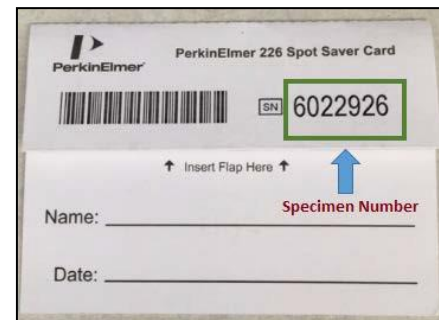


Figure 2. Filter paper card for capillary collection

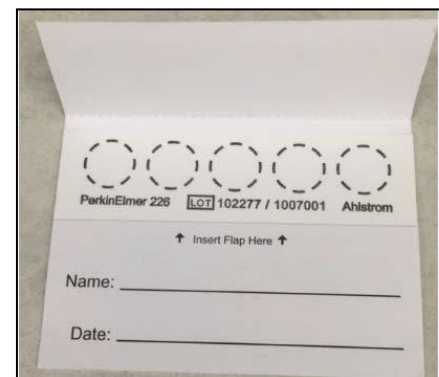


Figure 3. Opened filter paper card, ready for collection

- 5.) Puncture finger/heel with lancet.
 - a. Middle or ring finger are both acceptable choices
 - i. Orient the lancet such that it crosses the fingerprint lines and is not parallel to them
 - b. Figure 4 depicts acceptable locations for heel sticks

NOTE: Toe sticks are ONLY indicated for newborns when heel sticks do not yield sufficient blood volume

(CLSI-GP42-A6 §7.1; 7.2; 11.2)



Figure 4. Red line indicates proper lancet placement; black "X" indicates improper placement

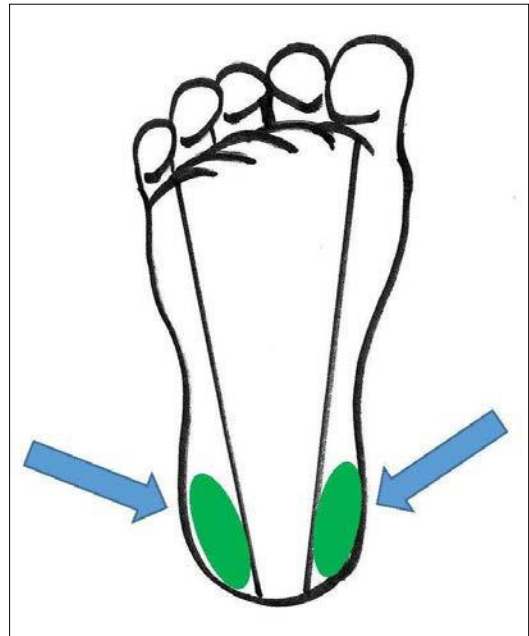


Figure 5. Green areas indicate acceptable locations for heel sticks

- 6.) Wipe away first blood drop using gauze
- 7.) Turn patient's hand downward such that the finger is pointing toward the floor (Figure 6)
- 8.) Allow large drop to form at puncture site
- 9.) Allow blood drop to **free-fall** onto collection card allowing card to absorb blood until circle is full

NOTE: 1 free-falling drop of blood is approximately 50 µl of blood, which standardizes the test among all collectors. If you are touching the drop of blood to the filter paper card before it free falls, you are collecting LESS than 50µl of blood and your results will NOT be accurate

- 10.) Collect a minimum of 2 drops onto filter paper card (Figure 7) **NOTE: Minimum sample volume; 2 filled circles**
 - a. Drops do not have to be centered in printed circles
 - b. Drops should not be overlapping
 - 11.) Place gauze over site and ask parent/guardian to hold pressure on the finger
 - 12.) Check card labeling by showing to parent/guardian for confirmation of correct information
 - 13.) If necessary, bandage finger
 - a. Do not use bandages on children younger than 2-years of age (CLSI GP42 A6:2008 §6.18)
 - 14.) Place filter paper on a drying rack (Figure 8), with the blood drops facing the ceiling. Be sure to AVOID any contact with blood drops.
- *Allow to dry for **AT LEAST 4 hours** away from direct sunlight or drafts from heat or air conditioning



Figure 6. Example of good collection technique

Figure 7. Examples of acceptable and unacceptable specimens

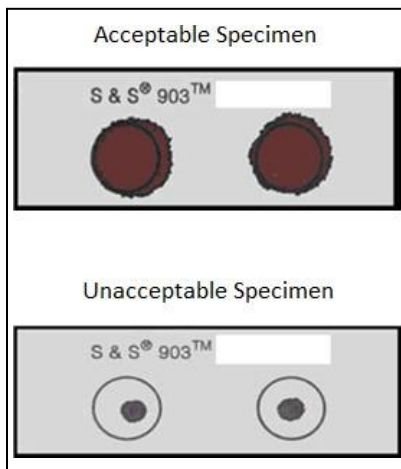
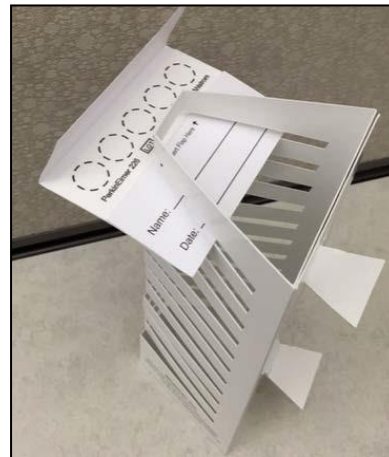


Figure 8. Drying rack with appropriately placed filter paper card



Supplies

The Indiana State Department of Health (ISDH) Laboratories sends participating providers with collection supplies for capillary collection to include lancets, filter paper cards, alcohol prep pads, gauze and bandages. In addition, the ISDH Containers Division at the laboratories will supply shipping containers for venipuncture confirmatory specimens. To order supplies, please go to <https://www.in.gov/health/public-health-protection-and-laboratory-services/lead-and-healthy-homes-division/supply-order-form/>.

Shipping Blood Lead Specimens to ISDH

Filter Paper Shipping Instructions

- 1.) After a minimum of 4-hours on the drying rack, cards may be closed for shipping by tucking the flaps together
- 2.) Place the cards in the pre-paid mailing envelopes with the corresponding requisitions
- 3.) Up to five (5) specimens may be placed into the self-addressed ISDH Laboratories; Blood Lead Lab envelope (Figure 9) provided for shipment to the ISDH Laboratories for testing
- 4.) Include in the envelope the requisition form and results reporting form, if results are to be called to the parent/guardian, (Figures 10, 11)

Note: Include consent form (Figure 10) with specimens.



Figure 9. Pre-paid envelope for shipment to the ISDH Laboratories

Figure 10. Example cover sheet; send to laboratory with specimens

Figures 11 and 12. Parent/Guardian result notification postcard; available in English and Spanish

Contact Information

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Testing Supplies: <https://www.in.gov/health/public-health-protection-and-laboratory-services/lead-and-healthy-homes-division/supply-order-form/> ; containers@isdh.in.gov 317.921.5875

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