



Sampling blood by fingerstick to determine hemoglobin level.  
Study of Anemia in children in refugee camps.  
Western Tanzania, 1998.

From the International Emergency Refugee Health Branch of the CDC.

# *THSteps Fingerstick Blood Specimen Collection*

## **Accepted Tube**

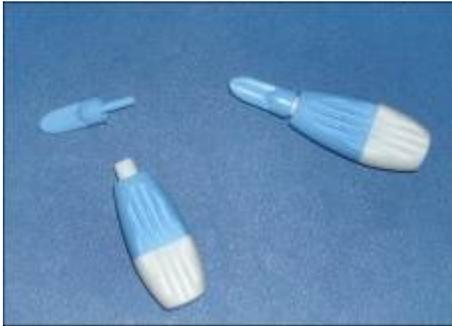


Becton Dickinson (BD) Microtainer® MAP 250µL  
- 500µL Tube (Catalog #363706)

The DSHS Laboratory will accept this tube for THSteps fingerstick blood collection specimens.

The required fill volume of the BD Microtainer® MAP tube is 250-500 µL. The target volume is indicated by the 375 µL line.

# Blood Collection Procedure



## THSteps Blood Collection Procedure

1. Wash your hands and the patient's thoroughly with soap and water; rinse and dry well.
2. Put on gloves.  
**NOTE:** To reduce the risk of specimen contamination during finger stick collection, proper cleansing procedures should be followed. It is possible that the blood lead test may be falsely elevated by the presence of lead on the collector's or the patient's skin.
3. Assemble equipment.
4. Clean the puncture area with an alcohol swab and allow to air dry.
5. Warm and/or massage the finger to increase circulation prior to puncturing the skin.
6. Grasp the patient's finger between your thumb and index finger, with the palm of the patient's hand facing up.  
**NOTE:** The best locations for finger stick collection are the third and fourth fingers of the patient's non-dominant hand.
7. For pediatric patients, use a sterile lancet designed for finger stick collection in children.



8. Make a quick, clean puncture that is deep enough to allow for adequate blood flow. Keep the finger below the level of the patient's heart.
9. Wipe off the first droplet of blood with a sterile gauze or cotton ball. If blood flow is inadequate, gently massage the finger. A well-beaded drop of blood should form at the collection site.
10. Collect the blood into a DSHS-specified blood collection device.  
**NOTE:** For total hemoglobin and lead testing, collect the specimen in a purple-top capillary tube. For hemoglobin type testing, collect the specimen on a DSHS Snap-Apart filter paper card.
11. Fill the blood collection tube as quickly as possible to keep the specimen from clotting in the tube before it is mixed. If possible, tap the collection tube with your finger while collecting the specimen. Draw time should be under 2 minutes.  
**NOTE:** Avoid scraping the site when collecting blood as this can stimulate clotting. Avoid under-filling or overfilling the collection tube. Fill the tube according to the manufacturer's stated fill volume. Whole blood collection tubes contain only enough anticoagulant for the stated fill volume.

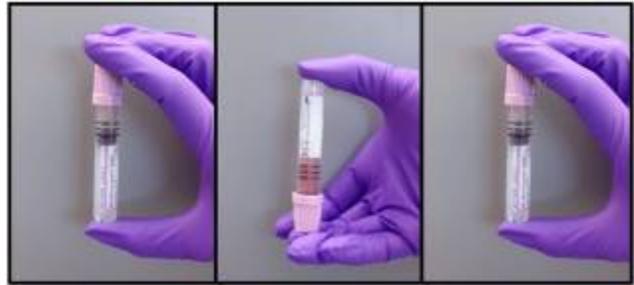
## Blood Collection Procedure (cont.)



12. Immediately after collection, thoroughly mix the capillary blood collection tube to prevent clotting. Be sure that the blood comes in contact with the entire inner surface of the blood collection tube so all the anticoagulant is mixed with the blood.
13. Apply pressure to stop the bleeding, and cover the puncture site with an adhesive bandage.

Mix the tube by turning it end over end, for 8-10 complete inversions.

### One complete inversion:



## Tube Volume



### Tube Fill Volume

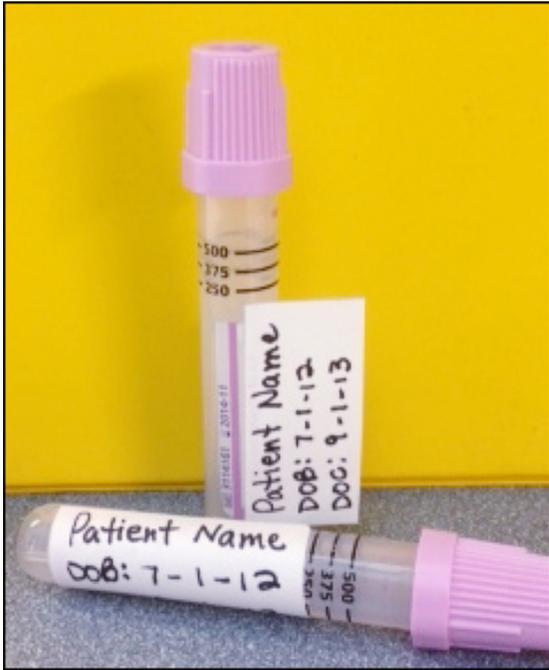
Becton Dickinson (BD) Microtainer® MAP 250µL - 500µL Tube.

Specimens must be submitted in the DSHS-specified finger stick blood collection tubes; otherwise, specimens will be rejected.

The acceptable fill volume for this tube ranges from a minimum of 250µL to a maximum of 500µL. For sufficient quantity, be sure the specimen level is near the target volume of 375µL.

To avoid specimens leaking in transit, ensure the cap is securely on the MAP tube by snapping it into place and twisting.

# Labeling Guidelines



Label the specimen clearly, using the patient's full name as it appears on the Medicaid card. Unidentified or improperly identified specimens will not be tested.

Preferred labeling of MAP tubes:

- Use a sticky-back label no larger than 1 inch x 1.5 inches.
- Using an Extra Fine Point permanent marker, clearly write patient's name, date of birth, and date of collection (see picture at left).
- Apply label to MAP tube, leaving the expiration date on the label visible for Laboratory review. Place edge of label on the vertical lavender stripe and wrap securely around the tube (see picture at left).

Mail or ship specimens on the same day they are collected or the next day.

## For More Information

For questions about collecting and shipping whole blood specimens for Hemoglobin and Lead testing to the DSHS Laboratory in Austin, call (512) 776-6236 or 1-888-963-7111, extension 6236, or email [ClinicalChemistry@dshs.state.tx.us](mailto:ClinicalChemistry@dshs.state.tx.us).

Visit the DSHS Clinical Chemistry Testing Services website: [http://www.dshs.state.tx.us/lab/cc\\_tests.shtm](http://www.dshs.state.tx.us/lab/cc_tests.shtm)

