A guide for Collecting Guthrie filter paper blood samples

Monitor Blood Phenylalanine Levels at Home

**A Guthrie blood sample should be collected when:**

- Blood phenylalanine level at last clinic visit or last Guthrie was greater than 10 mg% or less than 1 mg%.
- Your phenylalanine prescription has been changed.
- You have had a significant illness.
- You missed clinic and did not have your blood phenylalanine tested during the month.

**What you will need:**

- Alcohol Swab or Rubbing Alcohol and gauze
- Sterile Pad or Gauze
- Sterile lancet
- Guthrie Kit
  - Filter paper with 2 circles attached to lab slip. (*lab slip should be labeled DIET in the lower right corner)*
- Bandaid

**How to deal with stress and fears associated with blood sample collection:**

- Predictability eases stress. Try to draw blood in the same room at the same time of day with the same “props”.
- Give the child a few moments before the blood draw to prepare emotionally.
- Ask the child to take a deep breath before the actual puncture.
- Empower your child. Help your child work out personal coping strategies with a favorite toy, physical affection from a trusted adult or specific tasks as part of the process.

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2/2005
FOR CHILDREN AND ADULTS:

1. Fill in lab slip using your name, birthdate and date of collection.
2. Warm third (ring) finger in warm water or in your other warm hand for a few minutes.
3. Disinfect with alcohol swab or alcohol and gauze.
4. While holding the hand below the heart, use the sterile lancet to firmly make a puncture on the side of the tip of the finger as shown in the drawing.
5. Wipe away first drop of blood and proceed with second drop by touching the blood drop to the filter paper. Be careful not to touch the skin to the paper.
6. Fill one circle completely before starting to fill a second circle. This may take more than one drop of blood. Be careful, however, not to overlap drops of blood, making the sample uneven. The circle should appear saturated from both the front and the back of the filter paper.
7. When two circles are filled, place bandaid over puncture on fingertip to stop further bleeding and infection.
8. Allow filter paper to air dry completely in a safe place for at least 2-3 hours. Do not let specimen come in contact with any surfaces, direct heat or sunlight. Do not refrigerate the sample.
9. Within 24 hours of sample collection, mail sample to: Newborn Screening Washington State DSHS Public Health Laboratory P.O. Box 55729 Shoreline, WA 98155-0729

GENERAL HINTS TO HELP MAKE THE BLOOD DRAW AN EASY, SUCCESSFUL AND RELATIVELY PAINLESS PROCEDURE.

(1) Warm hand or heel under warm water for one minute to increase ease of blood flow.
2. Do not squeeze the finger or foot as this causes blood clotting and changes test results. If warm water isn’t enough to start blood flow, try massaging the arm or leg above the puncture to ease blood into the fingers and heel.
3. Use gauze instead of cotton as the fibers from cotton may restrict blood flow.
4. Fill one circle completely, then a second circle. If you have filled only parts of two circles, there may not be enough blood in any one circle to run the test.
5. Apply blood to only one side of the filter paper, never both sides.
6. Do not touch finger to the circles as this could contaminate results.
7. One firm puncture will have better results and a happier child than multiple light punctures.
8. Alternate puncture sites on the skin from month to month to minimize scar formation; avoid using the same site twice in a row.

FOR INFANTS:

1. Fill in lab slip using your child’s name, birthdate and date of collection.
2. Hold foot in pan of warm water or in your warm hand for 1-2 minutes.
3. Disinfect shaded area shown on drawing with alcohol swab or alcohol and gauze.
4. While holding the baby’s foot below the level of his/her hip, use the sterile lancet to make a puncture in the shaded area parallel to the sole of the foot.
5. Wipe away first drop of blood and proceed with second drop by touching the blood drop to the filter paper. Be careful not to touch the skin to the paper.
6. Fill one circle completely before starting to fill a second circle. This may take more than one drop of blood. Be careful, however, not to overlap drops of blood, making the sample uneven. The circle should appear saturated from both the front and the back of the filter paper.
7. When two circles are filled, place bandaid over puncture on heel to prevent further bleeding and infection.
8. Allow filter paper to air dry completely in a safe place for at least 2-3 hours. Do not let specimen come in contact with any surfaces, direct heat or sunlight. Do not refrigerate the sample.
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