

Newborn Screening Specimen Collection

1. **Use the specimen collection kit supplied by ADHS.** Store the kits on end so that the filter paper is not compressed by the weight of kits stacked on top. To order kits and envelopes (US Mail and FedEx), call 602-542-1190 or use the order form: [Order blood specimen collection kits for hospitals and providers](#)
2. **Check the kit's expiration date** (on the top left of the filter paper strip above the blood spot circles). Make sure the kit has not expired since expired kits will be considered unsatisfactory by the lab and will not be tested.
3. **Check the filter paper for damage** (scratched, abraded, torn or creased, detached or partially detached from the rest of the card) and discard the kit if it is not in good condition.
4. **Fill out the form completely**, printing legibly in dark ink (preferably black) and pressing hard enough so that it is possible to read the bottom copy. Record all requested information and attach insurance information to second screens. Do not use a printer or imprint card. Complete this step before collecting the blood to avoid contamination or smearing of the blood and to ensure the baby is properly identified.
5. **Gather supplies, wash hands and put on powder-free gloves** (preferred since powder can contaminate the sample). Wash hands and change gloves between babies. Observe universal precautions for handling of blood samples.
6. **Recheck the identity of the infant and mother.** Make sure that the infant being tested is the one described on the form.
7. **Position the infant with the heel lower than the heart.** Swaddling with one foot exposed can help to keep the infant comfortable. Warm the heel with a warming device or a cloth moistened with water no hotter than 42° C (107° F).
8. **Choose a collection site on the sides of the plantar surface of the heel** (the walking surface), avoiding the center curvature of the heel. See the illustration on the back of the collection kit.
9. **Wipe the collection site with 70% isopropyl alcohol or other non-iodine containing disinfectant and allow to air dry.**
10. **Use a sterile lancet to puncture the skin to a depth of no more than 2 mm.**
11. **Wipe off the first drop of blood with sterile gauze.** This drop contains tissue fluids that can dilute the sample.
12. **Allow a large drop of blood to form.** Apply gentle pressure to the heel (away from the puncture site) and release as drops of blood form. Do not squeeze or “milk” the collection site (this can cause hemolysis and addition of tissue fluids to the sample).
13. **Touch the drop of blood to a filter paper circle and allow it to fill the circle.** Do not apply multiple drops to the same circle. Apply blood to one side of the filter paper only. Collect 5 large drops of blood to fill the 5 circles on the filter paper. Fold the protective biohazard flap away from the bloodspots so that it doesn't touch the specimen until it is dry. Do not touch the filter paper with anything but blood drops.

Do not write or put stickers on the filter paper. Cord blood is not acceptable. If blood is obtained by venipuncture, do not use tubes with EDTA.

- 14. Dispose of lancets and other supplies in approved biohazard containers.**
- 15. Air-dry the blood spots on a level horizontal surface.** Protect the specimen from heat, direct sunlight or contamination while drying. Do not stack until dry (and the biohazard flaps are in place).
- 16. Send the specimen to the State Lab as soon as it is dry** but no later than 24 hours after collection. Do not send specimens in sealed plastic containers, even when completely dry, unless desiccants are included.

Hospitals should send a FedEx envelope each weekday so that the State Lab receives specimens each week day. Hospital labs should know when the FedEx pickup is for their facility and ensure that a package is sent out daily. It is better to send one specimen in an envelope each day rather than delay shipping until more specimens can be sent together. Specimens will not be tested if they are received more than 14 days after collection.

- 17. Keep a record of specimens sent.** The kit number (or AZ number, found under the bar code and above the blood circles) can be used to track specimens. Use this record to ensure that all results have been received.

Call the Newborn Screening Program at 602-364-3190 or fax a request for results to 602-542-4099 (include the baby's name and date of birth and either the mother's name and date of birth or the kit number in your request).

- 18. If you have questions about specimen collection, please call 602-364-1409 or 800-548-8381** (outside the Phoenix metropolitan area) or send an E-mail to the Newborn Screening Educator at jenkinw@azdhs.gov