SOUTH DAKOTA BOARD OF CERTIFIED PROFESSIONAL MIDWIVES
27705 460th Avenue, Chancellor, SD 57015
Phone: 605-743-4451 Email: cpmsdlicense@gmail.com
Home Page: doh.sd.gov/boards/midwives/

Newborn Screening Information

The CPM will provide, or provide a referral for three newborn screenings for all clients/families. Two of the screenings are mandated by the state.

> *34-24-17. Screening of newborn infants for metabolic, inherited, and genetic disorders. Each infant born in South Dakota shall be screened for metabolic, inherited, and genetic disorders. This screening shall be as prescribed by the Department of Health.* ***Source:*** *SL 1973, ch 233, § 2; SL 1990, ch 170, § 8; SL 2015, ch 185, § 1.*
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> *34-24-24. Information to be provided to parents or guardians. The Department of Health shall provide to the parents or guardians responsible for the care of an affected child, information about accepted medical procedures for treating any identified metabolic, inherited, or genetic disorder. A parent or guardian may decline such information.* ***Source:*** *SL 1973, ch 233, § 4; SL 2015, ch 185, § 5.*
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> ***20:86:03:08. Newborn care.*** *Certified professional midwives shall adhere to the following requirements:*
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> *(1) Each certified professional midwife shall carry the equipment necessary for resuscitation of the newborn; and*
>
> *(2) Each certified professional midwife shall comply with all newborn screenings required by state law and administrative rule.*
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> ***Source:*** *45 SDR 31, effective September 10, 2018.*
> ***General Authority:*** *SDCL 36-9C-32(2).*
> ***Law Implemented:*** *SDCL 36-9C-13, 36-9C-35, 36-9C-37.*

Currently the State of South Dakota does not have a medical or religious exemption for families to opt-out of screening. All newborns are mandated by the state to be screened. Families who decline metabolic screening should sign a document stating that:

1. They have been offered the opportunity to have their newborn screened.
2. They have been informed of the risks of refusing the screening
3. They have chosen to decline the screenings.

The CPM will also document the refusal:

1. On the Certifier's Worksheet for Completing the Birth Certificate under "Screening"
2. Notify the South Dakota Newborn Metabolic Screening Program at 1-800-738-2301.

Congenital Cardiac Heart Defect Screening– (Mandated by the State)

The State of South Dakota currently doesn't collect data or have a state reporting system for CCHD results.

> *34-24-32. Pulse oximetry test required for newborns. All hospitals which routinely provide obstetrical services and birth centers shall provide screening of newborns for CCHD through the use of a pulse oximetry test.* ***Source:*** *SL 2013, ch 158, § 1.*

CPM's should complete the CCHD screening at the 24-hour postpartum home visit and document the following in the newborns records:

1. Location of the test (R or L hand or foot)
2. Time of the test,
3. Oxygen saturation percentages followed by a Pass or Fail.

If the newborn fails the initial screening, the screening should be repeated twice within the next 12 hours and recorded in like manner. If newborn fails the follow-up screenings transfer to medical care for cardiac assessment will be initiated. The name of hospital, physician, and follow- up notes will be documented in the infant record.

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Newborn Metabolic Screening– (Mandated by the State)

The goal of newborn blood spot screening is to identify newborns at risk for life-threatening and debilitating conditions that would otherwise not be detected until damage has occurred, and for which intervention and/or treatment can improve outcomes for the child.

Out of Hospital Births - The parents, guardian, or custodian of each infant are ultimately responsible for having the blood spot specimen collected. The CPM providing primary care is directed in SDCL to cooperate with the parents and the Dept of Health in providing screening for every newborn.

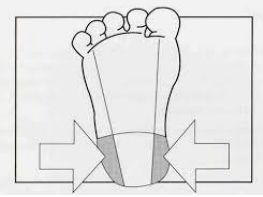
A filter paper newborn screening specimen should be collected between 24 and 48 hours.
If the infant is born at home but is transferred to a medical facility prior to the 24-hour visit the CPM must document that the screen is not complete and report to the hospital staff that the newborn metabolic screening will still need to be collected.

Specimen Collected Early (< 24 hours)
If the initial specimen is collected before 24 hours of age, a second specimen must be collected within 2 weeks of age.

Premature/Sick Infants:
A specimen should be collected as close as possible to discharge and no later than 7 days of life, unless a transfusion is imminent. The appropriate strategy is to always collect a newborn screening sample immediately before any transfusions, regardless of the infant's age.

Transfusion:
Red blood cell (RBC) transfusions interfere with the interpretation of some newborn screening results. The appropriate strategy is to always collect a newborn screening sample immediately before any transfusions, regardless of the infant's age. Since red blood cells and plasma transfusions can cause false negative results, post-transfusion follow-up at the appropriate time is essential. Whenever possible, the newborn screen specimen should be collected prior to a transfusion of blood products, even if less than 24 hours of age. If the infant was transfused at the time of collection, a follow-up filter paper specimen must be collected at least 8 weeks after the last transfusion.

Collection of Newborn Blood Spot Specimen



The heel-stick is always the preferred method for collection of the newborn screening. Gloves should be worn for personal safety. Care should be taken to avoid contamination of blood collection circles with antiseptic solutions, powders, lotions or other materials, which may contaminate and adversely affect the testing process.

Collect the blood onto the labeled filter paper, using the following protocol:

1. Cleanse infant's heel with 70% isopropyl alcohol (use only rubbing alcohol). Note: Warming the skin-puncture site with a warm moist cloth, or a heel warming device, for 3 minutes can increase blood flow through the site. (Caution! Don't burn the baby's skin)
2. **Allow heel to air dry.**

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3. Using a lancet, or heel incision device, and wearing gloves, perform the puncture on the plantar surface of the heel (as indicated in the drawing). The puncture should be made to a depth of less than 2.0 mm with a sterile lancet or incision device.
4. Gently wipe off first drop of blood with sterile gauze or cotton ball. The initial drop contains tissue fluids that may dilute sample.
5. Wait for formation of large blood droplet; apply gentle pressure with thumb and ease intermittently as drops of blood form.
6. Gently touch the printed side of the filter paper card to the blood drop and in one step, allow a sufficient quantity of blood to soak through and completely fill a pre-printed circle. Do not press the filter paper against the puncture site on the heel. Fill each printed circle with a SINGLE application of blood. Observe both sides of the filter paper card to assure that blood uniformly penetrated and saturated the card. Spotting should be done only on the printed side. The filter paper must not touch the skin puncture site.
7. Fill the required number of blood spots for mandated tests.
8. All used items should be disposed of in an appropriate biohazard container.
9. Elevate infant's foot above the body and apply pressure using sterile gauze. Do not apply adhesive bandages.
10. Allow blood specimen to **AIR DRY THOROUGHLY**, on a horizontally level—non-absorbent open surface, such as a plastic-coated test tube rack—for a minimum of 3 hours at ambient temperature and away from direct sunlight. Do not stack, heat, or allow to touch other surfaces during the drying process. Insufficient drying can adversely affect the test results. Hair dryers, direct sunlight, or other sources of heat cannot be used to dry the specimen.
11. Ship dried specimen **AS SOON AS POSSIBLE**, via courier service by the contract laboratory. Refer to shipment/courier section. Only use the mailing or courier envelope provided by the contract laboratory. Do not use plastic or sheet protector envelopes. Humidity and moisture are detrimental to stability of dried blood spot specimens and can affect results.

Shipping Specimens - Courier Service: Quick delivery of newborn screening dried blood spot specimens is crucial. Some disorders need to be identified, diagnosed and treated as soon as possible to prevent onset of clinical symptoms. It is important submitting facilities are mindful of the time between collection and shipment. Facilities should have procedures in place that track and support timely arrival of newborn screening specimens to the contract laboratory. Place the dried specimen collection card inside the provided envelope and ship by the contract laboratory's designated courier. For further instructions regarding courier pickup, contact the State Hygienic Laboratory at the University of Iowa at (515) 725-1630.

Quality Assurance Tips

- Check the information on the filter paper card against the information on the newborn's wristband/bracelet prior to collecting the specimen so the right baby's blood is collected on the right filter paper card.
- Check the expiration date on the filter paper card before collecting the specimen.
- Before sending out to the newborn screening laboratory, filter paper specimens should be checked for:
    - legibility,
    - completeness,
    - accuracy,
    - quality of the blood spots,
    - the collection card has had at least 3-4 hours to dry.

Tracking of Specimens-

The CPM should keep a log of every birth and document when:

1. Date/time blood spot specimen was **collected**

2. Date/time blood spot specimen was **shipped**
3. Date/time test results **received**

Completing the Collection Card Instructions
The newborn screening specimen collection card is a legal record; the submitter is responsible for the accuracy and completion of all information.

Please follow the online link to the South Dakota Department of Health for detailed instructions for how to correctly complete the required data sections on the newborn metabolic screening blood card: https://doh.sd.gov/topics/maternal-child-health/pregnancy-early-childhood/newborn/newborn-screening/blood-spot/for-providers/collection-card/

The contract newborn screening laboratory for South Dakota is the State Hygienic Laboratory at the University of Iowa (SHL).
To order client educational brochures created by the state for Newborn Metabolic and Hearing Screens

1. Contact the South Dakota Newborn Screening Program at DOHNewbornScreening@state.sd.us
2. https://doh.sd.gov/topics/maternal-child-health/pregnancy-early-childhood/newborn/newborn-screening/blood-spot/for-providers/

To order metabolic specimen collection card supplies please contact:

1. State Hygienic Laboratory at the University of Iowa (SHL) at (515) 725-1630
2. FAX at (515) 725-1650
3. Online **http://www.shl.uiowa.edu/kitsquotesforms/nbsformrequest.xml**

Newborn Hearing Screening–(Not Mandated)

All newborns should be offered an OAE or ABR hearing screen within the first 1-4 weeks of life for early detection of infants with hearing loss. Hearing loss is more common than any other condition screened for at birth. As many as 3 to 4 out of every 1,000 babies in the United States are born with some level of hearing loss. Based on that estimate, 33 to 44 babies are born with hearing loss in South Dakota each year. The Department of Health Newborn Hearing Screening Program recommends that:

- All babies be screened by **1 month** of age, preferably before leaving the CPM's care,
- If after 2 screenings the baby does not pass, a medical and hearing evaluation is needed before **3 months**.
- Once hearing loss is detected, services/intervention should be started within **6 months**.

This **1-3-6 guideline** was developed to give the baby the best possible time frame to be screened, diagnosed and treatment and services begun. The earlier a baby is determined to have a hearing loss and begins receiving services, the more likely that speech, language and social skills will reach their full potential.

See the link below for a roadmap of the newborn hearing screening, diagnosis, and intervention process. http://www.infanthearing.org/documents/ParentRoadmap.pdf (NCHAM)

If the CPM does not have access to the OAE or ABR equipment for hearing screening then they should make a referral to a private audiologist clinic, or have an arrangement with a community hospital for out-patient newborn hearing screening.

The CPM will document the results or the plan for hearing screening on the Certifier's Worksheet for Completing the Birth Certificate under Screenings.