

# Newborn Metabolic Screening Programme

## Purpose

The newborn metabolic screening programme screens for several treatable disorders.

## Applicability

This procedure applies to all nursing and midwifery staff in CDHB Maternity facilities and the Neonatal Unit.

## Associated documents

- [Newborn Screening Unit](#)
- [Your newborn baby's blood test](#) (Code HE2310) October 2017, Ministry of Health
- [Neonatal Handbook](#) (Ref.2402528)
- [Neonatal Clinical Resources Maternity](#) (Ref.2403289)

## Procedure

STEP ACTION

1. Informed parental consent is required prior to the collection procedure and documented on the [Newborn Record QMR0044 form](#) (Ref.2400438) and the [Neonatal Multidisciplinary Care Plan](#) (Ref.2400454)
2. [Your newborn baby's blood test](#) information leaflets for parents are provided in the 'purple information folders' given to parents on admission to the Neonatal Unit and are also available in the Well Child Tamariki Ora My Health Book and on the [Newborn Screening Unit](#) website.
3. Newborn metabolic screening tests are done on all babies as soon as practical between 24-48 hours of age.  
For infants < 1500 g a second sample is taken at 14 days of age.  
For infants < 1000 g a third sample is taken at 28 days of age.
4. A blood sample is taken and dropped onto circles of sample card.  
Do not touch the specimen collection paper (circles).  
If the circle is not completely filled another drop may be applied immediately.



STEP ACTION



**The Best Practice – Newborn Metabolic Blood Spot Collection e-learning module is available on [Learn Online](#) via the [Newborn Screening Unit](#) website**

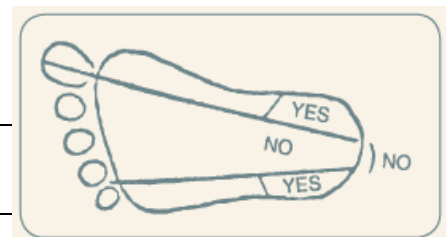
5. Dry the card horizontally – using the flap as a stand, dry until the blood spot is no longer red.
6. The card needs to be completely filled out with infant and mother's information, using a ballpoint pen. This includes lead consultant and LMC for NICU babies and LMC information for all other babies. Note areas on card that are not to be covered by sticky labels.  
Note that the baby's NHI number and surname must also be entered above the perforation.  
Ensure that the name matches that given below the perforation.
7. In NICU place the card in the collecting tray at reception. In the Maternity Ward cards are left to dry in either of the medication rooms. The ward clerk sends the cards to the laboratory to be posted to the screening centre in Auckland.
8. **When taking a newborn metabolic screening text at 24-48 hours in NICU a serum bilirubin needs to be completed at the same time.**

**Procedure: Heel pricks for capillary blood**

STEP ACTION

1. Wash hands and prepare equipment – appropriate sized approved lancet, gloves, skin wipe, band aid, gauze square, heel warmer, sucrose, appropriate blood tubes, Capillary tube and or Newborn Metabolic Screening Test card.
2. Apply heel warmer if required to infant's foot – a warm heel is needed for good perfusion.
3.
  - a) Encourage the mother to breastfeed or if the baby is taking artificial milk then bottle feed during the procedure;
  - b) Ensure the parent or carer holds the infant during the procedure if possible and employs multi-sensory stimulation;
  - c) If a) or b) above are not possible, consider the use of oral sucrose.

RECOMMENDED SAMPLE SITES



4. Positioning the baby to allow the baby's foot to hang down can also aid blood flow.
5. Hold infant's foot in 'C' shape as in image to right. Clean site with cleansing wipe, place the lancet firmly against the heel in either area shown in the above diagram then activate lancet.



6. Gently squeeze foot and release to allow foot to reperfuse.  
NOTE: Wipe the first drop of blood off the baby's heel to eliminate dilution due to tissue fluid.
7. Apply gentle pressure to puncture site to stop bleeding, wrapping a piece of gauze around site may be required. Band aids are available if required.

## Keywords

---

Guthrie, heel pricks, capillary blood

## References

---

[Newborn Screening Unit](#)