

# Pulse oximetry screening for newborn babies

Information for parents, whānau and guardians

Health New Zealand  
Te Whatu Ora

**Newborn babies should have a pulse oximetry test shortly after birth. The test is painless and can help detect congenital heart disease.**

## Congenital heart disease

Most babies are born with healthy hearts and have enough oxygen in their blood.

However, a small proportion of babies are born with congenital heart disease (CHD), which is a problem with the structure of the heart or blood flow through the heart.

The most serious form of CHD is called critical congenital heart disease (CCHD), which affects almost 100 babies born each year in New Zealand. Newborn babies with CCHD need treatment as soon as possible.

## Pulse oximetry tests

A pulse oximetry test works by measuring the amount of oxygen in the blood. Babies with low levels of oxygen in their blood could have a heart or lung problem.

Newborn babies born at 35 weeks' or more gestation should have a pulse oximetry test to check for CCHD. Tests are usually carried out 2–24 hours after birth.

The test can help detect CCHD at an early stage and may detect CCHD that have been missed during antenatal ultrasound scans and newborn baby checks.

If you do not want your baby to have the test, please inform your health practitioner.

## Test procedure

The test is performed by a midwife, doctor, or nurse. It only takes a few minutes and will not hurt your baby. You can comfort and feed your baby while the test is being performed.

The test is carried out by placing a sensor around the baby's foot. The sensor is attached to a monitor that measures oxygen levels.

## Low oxygen readings

Sometimes healthy newborn babies have low oxygen levels in their blood because their heart and lungs are still adjusting after birth. If your baby has a low pulse oximetry reading, your health practitioner will examine your baby.

They may repeat the test or recommend other tests, such as an echocardiogram (ultrasound of the heart). Not all hospitals can perform echocardiograms. If your baby needs an echocardiogram, they may need to be transferred to a hospital that provides this test.

If an abnormality is found in your baby's heart, a heart specialist will advise your doctor on how best to manage your baby's condition.

Most babies can be successfully treated if the problem is found early. Treatment will usually take place at Starship Children's Hospital in Auckland.



Pulse oximetry will not detect all forms of heart disease, which means that some babies with CCHD will have a normal pulse oximetry reading.

Therefore, you should attend regular visits to a Well-child Tamariki Ora provider so they can continue to check your baby's health.

## Symptoms of CHD

If you notice any of the following symptoms or you are concerned about your baby, you should get your baby checked by a doctor:

- » Fast breathing when resting or sleeping
- » Difficulty breathing
- » Sweating around the head
- » Pale or blue coloured skin
- » Poor feeding or tiring easily during feeds
- » Excessive sleepiness

## In an emergency call 111

## More information

If you have any questions about CCHD or pulse oximetry testing, ask your healthcare provider.

For more information about support services for families of babies with heart conditions, contact Heart Kids NZ on 0800 543 943 or visit [www.heartkids.org.nz](http://www.heartkids.org.nz)

## Data collecting information

The results of your baby's test will be stored by the hospital or birthing centre. If any of your baby's data is used for reporting purposes, your baby will not be identified. Some of the information collected will be used to evaluate pulse oximetry screening services.