



# Healthy Heart Screening Information for parents Pulse Oximetry Screening

Screening is a tool used to detect a problem before it causes trouble. Pulse oximetry can be used to screen for heart and lung disease in newborn babies. The test will be offered to the parents of all newborn babies that are  $\geq 35$  weeks' gestation at birth.

## What is pulse oximetry?

Pulse oximetry is a test that measures how much oxygen is in the blood. It is helpful in determining if an infant's heart and lungs are healthy.

## What is congenital heart disease (CHD)?

CHD is a problem in the structure of the heart or the blood flow through the heart. Some forms of CHD need to be detected and repaired early in life; these are called 'critical' CHD. Every year nearly 100 babies are born in New Zealand with a critical heart defect.

## Why is pulse oximetry used to screen for CHD?

CHD in some babies is discovered by ultrasound scans done before birth or at the time of the newborn baby check, but unfortunately not all CHD can be picked up this way. Babies with CHD often have low levels of oxygen in their blood. When these levels are very low, a baby's skin and lips are blue. Pulse oximetry can diagnose babies with CHD before they become blue and sick.

## How is pulse oximetry done?

A sensor with a small red light is placed around the baby's foot. The sensor is attached to a monitor that shows the oxygen levels in the blood. The test is painless. It takes just a few minutes to perform when the baby is quiet, calm and warm. You can comfort your baby while the test is being performed.

## When will the screening be done?

The pulse oximetry screening test will be done in the first 24 hours after birth.

## What does it mean if my baby's test shows a low oxygen level?

A low pulse oximetry reading can be normal in newborn babies whose heart and lungs are adjusting after birth. A health care provider will examine your baby and a recommendation will be made either to repeat the test in a couple of hours or to proceed with further investigations to check for a heart or lung problem. This may include an echocardiogram.

## What is an echocardiogram?

An echocardiogram is an ultrasound of the heart that is used to diagnose heart disease.

## Can all hospitals perform echocardiography?

No, not all hospitals can do this test. If your baby requires a heart ultrasound you and your baby may need to be transferred to a larger hospital for further assessment.

## What if an abnormality in my baby's heart is found?

A children's heart specialist will advise your doctor how best to manage your baby. This might include transfer to Starship Children's Hospital.

Most babies can be treated successfully if the problem is found early.

## Can a baby with CHD have a normal pulse oximetry reading?

The test will not detect all forms of CHD. Your baby should continue to have normal visits with his or her "Well-child Tamariki Ora" provider. If there are concerns, your baby will be referred for further assessment.

If you notice any of the following or have other concerns, you should get your baby checked: fast breathing when your baby is at rest or sleeping; sweating around the head; a bluish skin colour, or if your baby tires easily during feeds.

## What information is collected and how will it be used?

As part of the screening, information will be collected about your baby's test results. Reports resulting from this initiative will not identify you or your baby in any way. Information may be used to evaluate and improve pulse oximetry screening for newborn infants.

## Your rights

If your baby was injured during the test, which is very unlikely, you would be eligible to apply for compensation from ACC just as you would be if an injury occurred at home.

If you do not want your baby to be screened you can inform your doctor or midwife when you are in hospital to deliver your baby. Your baby does not have to have the test.

## More information

If you have any questions, please ask your midwife, nurse or doctor.