

# Pulse Oximetry Screening for Congenital Heart Disease

## What is Congenital Heart Disease (CHD)?

Congenital heart disease (CHD) is when baby's heart has not developed properly during pregnancy. This can cause problems with the structure or the blood flow through the heart. Some of these conditions are known as critical CHD and these can cause life-threatening problems if not diagnosed soon after birth. They can usually be treated if found early.

## Why should my baby be screened for CHD?

Each week in New Zealand twelve babies are born with CHD. Up to half are diagnosed before birth by antenatal scan, or immediately after birth when they are unwell, but some babies may go home without knowing that there is a problem.

These babies are at risk of having serious complications within the first few days or weeks of life and often require emergency care. When combined with antenatal scans and a physical examination by a midwife, nurse, or medical professional screening can detect 9 out of 10 cases of CHD, leading to early diagnosis and treatment.

## What is Pulse Oximetry?

Pulse oximetry screening is a safe, painless way of measuring the oxygen levels in your baby's blood. The test is done before your baby is discharged home. Screening programmes are being started in many countries including America, the United Kingdom and Australia.

## How is the test done?

A sensor with a small red light is placed around baby's right hand and either foot and held in place using a small wrap. The test is painless and takes just a few minutes. It can be done while you are holding or feeding your baby.

## What happens if my baby does not "pass" the screening?

A low pulse oximetry reading can be normal in newborn babies whose heart and lungs are adjusting after birth. Your baby will be seen and examined by a neonatal doctor. Based on the findings from this examination the test may be repeated in a couple of hours or additional testing of baby e.g. an echocardiogram (an ultrasound of the heart) may be indicated.

## Can a baby with serious CHD have a normal pulse ox reading?

Yes. Pulse oximetry is a screening test and does not detect all types of CHD. If your baby becomes breathless or unwell at home, contact your midwife or doctor as soon as the concerning signs are seen.

**In an emergency call 111**

Your baby should continue to have their normal visits with their "Well-child Tamariki Ora" provider.

## What are the symptoms of CDH?

Possible symptoms include:

- Fast breathing when resting or sleeping
- Very pale or blue coloured skin
- Poor feeding or tires easily during feeds
- Sweating around head (a lot of babies get sweaty when wrapped up or on a warm day, but a sweaty forehead is a concern)
- Very sleepy

If you notice any of these symptoms or have other concerns (even if your baby has had a normal physical examination and pulse oximetry screening test), get your baby checked as soon as you notice the symptoms.

These symptoms may also occur with other medical problems e.g. infections, so get your baby checked as soon as you notice the symptoms.

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## **What if my baby does have a heart abnormality?**

The opinion of a paediatric heart specialist will be obtained. They will advise the neonatal doctor on how to manage your baby. This might include a transfer to Starship Children's Hospital in Auckland. Most babies can be managed successfully if the problem is found early.

## **Who should be screened?**

The parents of all newborn babies in Wellington, Kenepuru and Paraparaumu maternity units should be offered screening for their babies before they are discharged from hospital. You will be asked for your verbal consent for your baby to be screened.

## **What if I have questions or do not want to have my baby screened?**

If you have questions about pulse oximetry ask the doctor or midwife /nurse that is providing your care. If you do not want your baby screened for serious heart problems you do have the right to decline the screening test.

## **Where can I get further information on CHD?**

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

## **Contact us**

**Ward 4 North**, Wellington Hospital  
Phone (04) 8060 880 (Extension 80880)

**Kenepuru Maternity Unit**  
Kenepuru Community Hospital  
Phone (04) 385 5999 (Extension 7010)

**Paraparaumu Maternity Unit**  
Warrimoo Street, Paraparaumu  
Phone (04) 903 0205 [www.ccdhb.org.nz](http://www.ccdhb.org.nz)