

Pulse Oximetry Screening of Neonates

A routine screening test for newborn babies

Information for parents

What is the screening all about?

Congenital Heart Disease (CHD) occurs in nearly 1% of live births, with approximately one quarter of these being Critical Congenital Heart Defects. Antenatal ultrasound screening and routine neonatal physical examination does not detect all CHD or CCHD. Pulse oximetry is a low-cost, non-invasive test that improves the detection of CCHD prior to the development of symptoms. Data to date suggests that routine use of pulse oximetry before discharge will diagnose a substantial proportion of babies who would otherwise be missed on routine examination (around 50%).

How is the test performed?

Pulse Oximetry is a simple non-invasive screening test, which measures the amount of oxygen being carried around in the babies' blood by shining a light through babies' foot and hand. Pulse oximetry is safe and requires no X-ray or radiation.

How long does the test take?

The test takes only a few minutes to attend and will be done when your baby is between 4 and 24 hours of age. The midwives and nurses will perform this test on your baby.

How are the results interpreted?

We are looking for your baby's oxygen saturation level to be greater than or equal to 95%. If the saturations are between 91% to 94% or hand to foot difference $> 3\%$, then your baby's paediatrician will be informed, the test will be repeated 1-2 hours later and, in the meantime, we will assess your baby's temperature, heart rate and breathing to ensure this is all normal. If the repeat test is below 95% then your baby may need to be admitted to the special care baby unit for further monitoring. If the oxygen saturation is below 90% at any time, then your baby will be admitted to the special care baby unit and the paediatrician will be informed.

The most common reason for not passing the test is that your baby's circulation is still adjusting to the birth process.

If your baby does not pass the second screening test, your Paediatrician will thoroughly assess your baby's heart and lungs.

We know that pulse oximetry testing is not 100% accurate in detecting all heart problems, but it has been shown to improve outcomes for some babies. A routine examination by your paediatrician is still required, regardless of the test result.

If you have any questions, please do not hesitate to ask one of our midwives or nurses for further information.

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References

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