Non-Invasive Prenatal Testing (Nipt)

Doncaster and Bassetlaw Teaching Hospitals
NHS Foundation Trust

What is non-invasive prenatal testing (NIPT)?

NIPT is a test that uses a sample of the mother's blood during pregnancy to determine if the developing baby has certain chromosome conditions that can affect health and development.

During pregnancy, some of the DNA from the baby cell free fetal DNA (cff DNA) crosses into the mother's bloodstream.

This cff DNA carries the baby's genetic information.

It is cff DNA that is tested and analysed during NIPT to check for certain chromosome conditions.

The test can also determine the sex of the fetus.

It's important to remember that a screening test estimates the likelihood of the fetus having a particular condition.

It doesn't diagnose a condition. Any other genetic conditions or differences will not be identified.

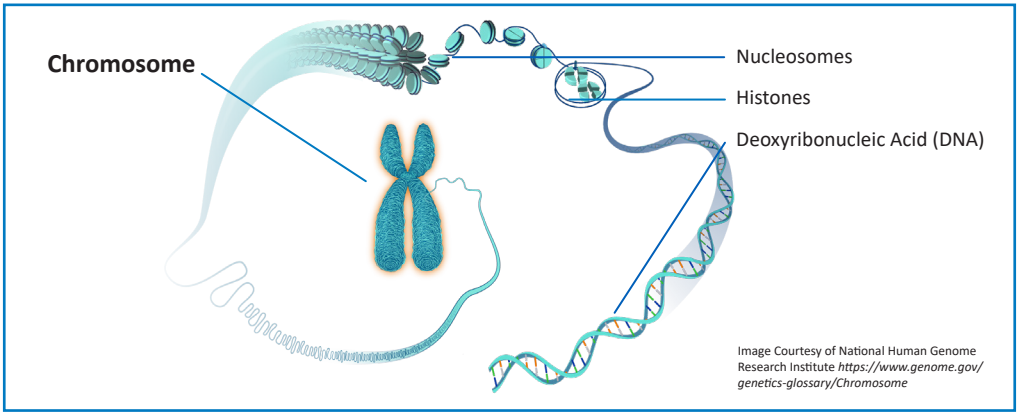

Image Courtesy of National Human Genome Research Institute *https://www.genome.gov/genetics-glossary/Chromosome*

Who can have the NIPT test?

NIPT test is available from 10 weeks of pregnancy. NIPT tests for conditions in the baby where an entire extra copy of a chromosome is present or missing.

A extra copy of a chromosome is known as a trisomy.

NIPT has been added to the NHS screening pathway for Down's syndrome, Edwards' Syndrome and Patau's syndrome and will be offered at no additional cost following a higher chance result (between 1 in 2 and 1 in 150) from the combined (First Trimester) or quadruple (Second Trimester) test.

The test is suitable for single and twin pregnancies.

For non-identical twin pregnancies, the NIPT test will provide the chance of a Trisomy affected pregnancy for the pregnancy and will not be able to provide a twin-specific chance.

The test is suitable for IVF pregnancies (including donor egg pregnancies).The test is suitable for surrogate pregnancies.

How accurate is NIPT?

NIPT is a blood test that is more accurate than the first pregnancy screening test.

This test has shown to be more than 99% accurate in identifying pregnancies affected with Down syndrome (trisomy 21) , and high detection rate >90% for other trisomies, Edwards syndrome (Trisomy 18) and Patau syndrome (Trisomy 13).

Does a "normal" (low risk) NIPT mean that baby is healthy?

No test can guarantee that a baby will be healthy at birth. NIPT looks for several chromosome conditions including Down syndrome.

NIPT does not analyse all the baby's chromosomes and DNA, therefore, will not rule out other genetic, chromosome or other health conditions.

What if the result of the NIPT shows that the baby might have a condition?

If the NIPT comes back as high chance this does not mean that your pregnancy is definitely affected with a trisomy; there is a small chance that the result is incorrect.

You will be offered an invasive test such as a CVS or amniocentesis which will be able to check the chromosomes of the fetus. These invasive tests will give a definite result.

Is there a chance that NIPT test needs to be repeated?

YES. It just means that the sample did not have enough fetal DNA to be able to carry out the testing. This happens very rarely.

Can NIPT harm mother or baby?

NIPT is completely safe and will not harm you or your baby.

Patient Advice and Liaison Service (PALS)

The team are available to help with any concerns/complaints you may have about your experience at the Trust. Their office is in the Main Foyer (Gate 4) of Doncaster Royal Infirmary. Contact can be made either in person, by telephone or email.

The contact details are:

Telephone: 01302 642764 or 0800 028 8059
Email: dbth.pals.dbh@nhs.net