NON-INVASIVE PRENATAL TEST (NIPT)

SAFE, RELIABLE AND ACCURATE

HOW DOES NIPT WORK?

In pregnancy, small amounts of DNA from the placenta of the foetus pass into the bloodstream of the mother. New technology allows us to analyse this DNA directly from the mother's blood and screen for specific chromosome abnormalities.

Chromosome abnormalities can arise when a baby inherits three copies of a specific chromosome (trisomy) instead of the usual two. Similarly, a monosomy occurs when only one copy of a chromosome is inherited. Both trisomies and monosomies can significantly affect the progression of a pregnancy, either leading to miscarriage or a genetic condition.

WHAT DOES THE CENTONIPT® TEST FOR?

The CentoNIPT® test screens for an extra copy (trisomy) of chromosomes 13 (Patau syndrome), 18 (Edwards syndrome) and 21 (Down syndrome). The test can also identify both the gender and changes in the number of sex chromosomes.

WHO CAN HAVE THE CENTONIPT® TEST?

Women with a singleton or twin pregnancy from 10 weeks onwards, including IVF pregnancies conceived using the patient's own or donor eggs.

WHO SHOULD NOT HAVE THE CENTONIPT® TEST?

- If you have a malignancy (cancer) or have undergone a bone marrow/organ transplant and/ or recent blood transfusion this may lead to incorrect results and the test is therefore not recommended.
- Women carrying more than two babies (for example triplets).

IS THERE AN AGE LIMIT FOR THE CENTONIPT® TEST?

No. All pregnant women of any age and/or risk category can have the CentoNIPT® test. Although the frequency of chromosomal trisomies increases with maternal age, they can happen at any age and in any pregnancy. Your doctor will advise your risk level.

ADVANTAGES OF HAVING THE CENTONIPT® TEST

- Highly accurate: >99% detection rate for detecting trisomy 21, 18 and 13.
- Safe: Only a blood specimen is required from the mother with no risk to the baby.
- The test can be performed during any stage of the pregnancy from 10 weeks onwards.
- Results are available within 10 working days of sample collection.

MY RESULTS AND WHAT THEY MEAN

Your NIPT results will be communicated within 10 working days directly to your doctor. He/she will explain the result and answer any questions you may have.

Results reported as **No anomaly detected** indicate that the chances of the baby having the chromosome abnormality tested for is low. However, the NIPT test is a screening test and therefore does not completely eliminate the possibility of abnormalities of the tested chromosomes, or the possibility of other chromosome abnormalities or birth defects that may be present.

Results reported as **Anomaly detected** indicate that there is an increased risk that the baby has the specified chromosome abnormality. "Anomaly detected" in a twin pregnancy indicates that at least one baby is at risk of having the specified chromosomal abnormality.

It is important to remember that CentoNIPT® is a screening test, and your doctor will offer additional diagnostic testing (such as an amniocentesis or placental biopsy) to confirm an **Anomaly detected** result. Your doctor may also refer you for genetic counselling to discuss the implications and choices available to you and your baby.

LIMITATIONS OF THE CENTONIPT® TEST

- CentoNIPT® only reports on an extra copy (trisomy) of chromosomes 21, 18 or 13, with or without sex chromosome abnormalities, depending on which testing option is chosen.
- CentoNIPT® cannot rule out the possibility that other genetic abnormalities may be present, nor does it guarantee a healthy baby.
- Twin pregnancies:
  - o Chromosome abnormalities can be detected by this test but cannot be attributed to a specific baby in a twin pregnancy.
  - o If a Y chromosome is detected (male), the gender of each individual twin cannot be determined by the test.
- There is a small possibility that the test results might not reflect the chromosomes of the baby, but instead chromosome changes in the placenta only or in the mother.
- In the case of uncertain/inconclusive test results, the test result must be confirmed by invasive prenatal diagnosis (amniocentesis or placental biopsy).
- Although rare, there is a chance that a result will not be obtained due to the amount of the baby's DNA in the mother's blood stream being too low (low foetal fraction). Under these circumstances, an additional specimen may be requested.

MEDICAL AID COVER FOR THE TEST

Medical aid schemes may cover the cost of the test (partially or fully) if it is deemed medically necessary and specific criteria is met. This may require submitting a motivation with supporting documentation from your doctor as part of pre-authorisation. In some instances, the NIPT test may be funded from your medical savings or may need to be paid for upfront. It is important that you contact your medical aid to find out whether the NIPT is covered as part of your maternity benefit.

MORE QUESTIONS?

Should you require additional information, please ask your doctor. You can also contact our experts at the NGS Laboratory at 012 678 0645 or email nipt@ampath.co.za.

AMPATH APP

Your test results are available to you through our easy-to-use Ampath App

*Certain test results require an explanation by your doctor first and will only be available on the App later.

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