Prenatal Genetic Testing: Who May Need It and Why

Many expectant parents are concerned about the possibility that their unborn child may have genetic disorders that could impair their long-term health or possibly the baby's capacity for survival. Prenatal genetic testing can reveal whether a foetus has specific medical issues while still inside the mother. We've created a tutorial to help you comprehend genetic testing better.

What is prenatal genetic testing?

Prenatal genetic testing reveals the possibility that a child will inherit particular medical issues. Additionally, genetic testing can ascertain with the greatest degree of accuracy whether an unborn child has a particular genetic condition or birth defect. Expectant parents can use these information from prenatal examinations to make decisions regarding their child's health.

The tests can also improve your chances of having a safe pregnancy by helping your doctor customise your care for you.

Prenatal testing is not required; rather, it is an option. Additionally, it's crucial to make a well-informed choice regarding screening.

Pros and cons of prenatal genetic screening

Genetic testing need not always be carried out during pregnancy. A test to determine whether a pair carries specific genes may be administered if both partners come from an ethnic group where there is a higher chance of developing a particular genetic condition. We refer to this as a carrier screening. Many genetic disorders, including Tay-Sachs, sickle cell anemia, and cystic fibrosis, call for the presence of the gene or genes in both parents.

This information may influence decisions regarding family planning, such as whether to have children or use IVF with preimplantation genetic testing.

Prenatal genetic testing can identify the likelihood of birth abnormalities and hereditary diseases, but only a proper diagnostic test can be certain. In order to better understand their situation and their alternatives, couples who learn that their unborn child has a genetic problem are frequently directed to a genetic counsellor.

Types of prenatal genetic testing

There are a couple of different types of genetic tests that are conducted during pregnancy.

Screening tests

Screening tests will determine whether the fetus has a high risk for a certain condition. Here are a few types of screenings:

- **First trimester combined screening** is typically done between weeks 10 and 13 of pregnancy. First trimester combination screenings include maternal blood tests for PAPP-A and beta-hCG as well as ultrasound (nuchal translucency ultrasound measures). The likelihood of genetic abnormalities including Down syndrome (trisomy 21), Edwards