

THE NON INVASIVE PRENATAL
TEST TO DETERMINE PATERNITY
IN THE EARLIEST PHASES
OF PREGNANCY



Genoma

# NON-INVASIVE PRENATAL PATERNITY TESTING

Until recently, the only way to test for paternity while pregnant was to collect amniotic fluid via a long needle, which is an "invasive" procedure that presents a risk to the baby.

"Non-invasive" means there is no need to intrude in the baby's safe environment to test for paternity. A non-invasive prenatal paternity test is the safest way to determine fatherhood before the baby is born.



is an advanced non-invasive prenatal paternity testing for determining fatherhood.

Non-Invasive Prenatal Paternity Testing can be used to assess the paternity before the child is born.

PATERNITYSAFE allows to profile the baby's DNA through the analysis of cell-free fetal DNA found in the mother's blood, and subsequently to compare the baby's profile to the one of the alleged father.

## WHY CHOOSE PATERNITYSAFETM



A groundbreaking sequencing technology (NGS) coupled with a sofisticated bioinformatic analysis



**FAST** 

Turnaround time of about 15 working days



#### **NON-INVASIVE**

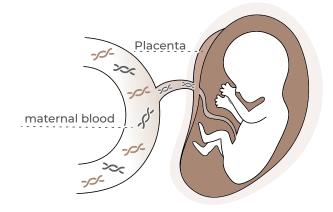
A simple buccal swab and a blood sample (3 ml) are required



**ACCURATE** 

Sensitivity and specificity >99%

## **TEST TECHNOLOGY**



SISK Maternal DNA

225

Cell-free Fetal DNA (cfDNA)

During pregnancy, fetal DNA circulates naturally in maternal blood and can be detected from 5 weeks gestational age;

PATERNITYSAFE is performed by taking a blood sample from the mother with a gestational age of at least 10 weeks.

Thanks to a complex laboratory analysis, cell-free DNA is isolated from maternal plasma and then sequenced using **Next Generation Sequencing** (NGS) technique and subsequently compared to the **alleged father's DNA** which is collected using a simple buccal swab.

The baby's genetic profile will be made up of half of the genetic profile from the mother and half from the father. Therefore, the alleged father to be considered the biological father will have to own half of the genetic profile present in the baby. Paternity is EXCLUDED in case in which the genetic characteristics of the putative father differ from those of the baby, while it is ATTRIBUTED if they match.

At the end of the process a report is generated to show if the man tested is or is not the biological



## **RESULTS**



# PATERNITY ATTRIBUTION

The alleged father cannot be excluded as the biological father. In this case, the tested male is the biological father and we will confirm this with a **Probability of Paternity >99.9%**.



The tested alleged father is excluded as the biological father of the unborn baby.

## **5 EASY STEPS**



Order the PaternitySAFE™ collection kit



Fill in all required trf information and enclose the informed consent signed from the patient



Collect DNA samples through a simple blood sample (mother) and a buccal swab (alleged father)



Ship the samples to the lab



**Receive results** 



#### **Expertise and Quality you can trust**

From over 20 years, Genoma is the leading pioneer in genetic testing, focusing on finding the genetic cause of each patient's medical or developmental problem. Our team's unmatched knowledge and experience deliver a combination of advanced technology and deep data sets that lead to more accurate diagnosis.



**Test performed in Italy** (Rome or MIlan).



Fast TAT: 15 working days.



20 years experience in prenatal molecular diagnostics.



**Team of experts** in genetics.



Laboratories with groundbreaking technologies.



Test available worldwide.



Over 200.000 genetic tests/year.



#### **Dedicated R&D team**

Numerous peer-reviewed papers published in renowned international iournals.

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