

What is infertility and how common is it?

Infertility is the inability to achieve and maintain a pregnancy. It is considered a major disease of the reproductive system and it affects approximately 1 in 6 couples worldwide. Infertility genetic testing can identify mutations (genetic changes) associated with infertility, giving your healthcare provider invaluable knowledge that will help them choose the best treatment plan or clinical management for you.

Is infertility a male or female problem?

Infertility affects not only females but also males. In couples experiencing pregnancy delay, male infertility accounts for about 35% of cases, and female infertility for about 45% of cases. The remaining cases are caused by a combination of male and female factors. 10-15% of men and women have genetic changes associated with infertility.

What does Rodinia Female Infertility Panel test for?

Female Infertility Panel includes testing of 55 genes associated with infertility, testing of the X chromosomes, and disorders such as primary ovarian insufficiency, polycystic ovary syndrome, hypogonadotropic hypogonadism and ovarian hyperstimulation syndrome.

What does Rodinia Male Infertility Panel test for?

Male Infertility Panel includes testing of 40 genes associated with infertility, testing of the X and Y chromosomes including Y-chromosome microdeletions, and disorders such as hypogonadotropic hypogonadism, like Kallmann syndrome.

What are Y-chromosome microdeletions?

Y-chromosome microdeletions are genetic conditions caused by the loss of a region on the Y chromosome. Y-chromosome microdeletions are the second most common genetic cause of infertility. Depending on the region on the Y chromosome that is deleted, there might be options available to successfully extract sperm and achieve pregnancy.

What does Rodinia Thrombophilia and NAIT Panel test for?

Thrombophilia and NAIT Panel tests for 22 mutations associated with Thrombophilia and Neonatal Alloimmune Thrombocytopenia (NAIT). It can be beneficial for couples or individuals with more than one miscarriage, or with a family history of Neonatal Alloimmune Thrombocytopenia (NAIT) or thrombosis. The panel can be selected as an Add-on Panel to the Female or Male Panel, or as a Stand-alone Panel.

What is Thrombophilia and how does it affect female fertility?

Thrombophilia is a genetic blood disorder that increases the risk of thrombosis. Thrombophilia can increase the risk for recurrent pregnancy loss and late miscarriages. The risk of thrombosis in pregnant women is already 5-6 times higher than in non-pregnant women, and women with thrombophilia have an even high risk.

What is NAIT?

Neonatal Alloimmune Thrombocytopenia (NAIT) is a rare but potentially serious disorder where there is a platelets mismatch between the expectant mother and her fetus. NAIT occurs during the first pregnancy and becomes more severe with each subsequent pregnancy. NAIT affects

approximately 1 in 1000-1500 live births. Depending on the severity of each case, there are clinical management plans available.

How can infertility genetic testing improve prognosis?

By identifying the genetic cause of infertility, genetic testing can lead to more personalized clinical management, and assist in establishing the most fitting fertility treatment for each individual or couple. In men with azoospermia, genetic testing of the Y chromosome is recommended by the American Society for Reproductive Medicine, as it can identify which men have a chance of recovering sperm through testicular sperm extraction*. In women with primary ovarian insufficiency, genetic testing provides early identification which is invaluable as egg harvesting and cryopreservation at a young age can be performed to preserve fertility.

*Practice Committee of the American Society for Reproductive Medicine. Diagnostic evaluation of the infertile male: a committee opinion (2015)

I have other questions. Where can I find additional information?

Please contact your healthcare provider for additional information. You can also have a look at nipd.com/products/reproductive/rodinia-patients/