virtus DIAGNOSTICS

Virtus Diagnostics offers a complete range of general pathology services as well as specialist fertility and genetic testing.

Virtus Diagnostics conducts over a million tests each year across the following disciplines: general pathology, fertility pathology and advanced genetic testing.

We continually innovate and expand this range and with over 200 scientists, many that are internationally renowned in their field, you can be assured you are accessing world class diagnostics services.

Virtus Diagnostics is committed to supporting patients' health throughout their lifetime, and in particular, during their reproductive life. For women this includes general gynaecology and for both men and women it includes general health, fertility planning and conception, through to infertility treatment.

Our service offers:

- Specialists in clinical genetics
- A comprehensive range of tests
- Fast turnaround of results
- Highly skilled and experienced scientists, with access to the latest technology
- Convenient collection centres, and
- Personalised service

Virtus Diagnostics Collection Centres

The network of Virtus Diagnostics collection centres are across NSW, QLD, VIC & TAS. Please refer to virtusdiagnostics.com.au for the complete list of our collection centres.

Virtus Diagnostics General enquiries
1800 837 284

Virtus Diagnostics Accounts enquiries
1800 090 325

virtusdiagnostics.com.au

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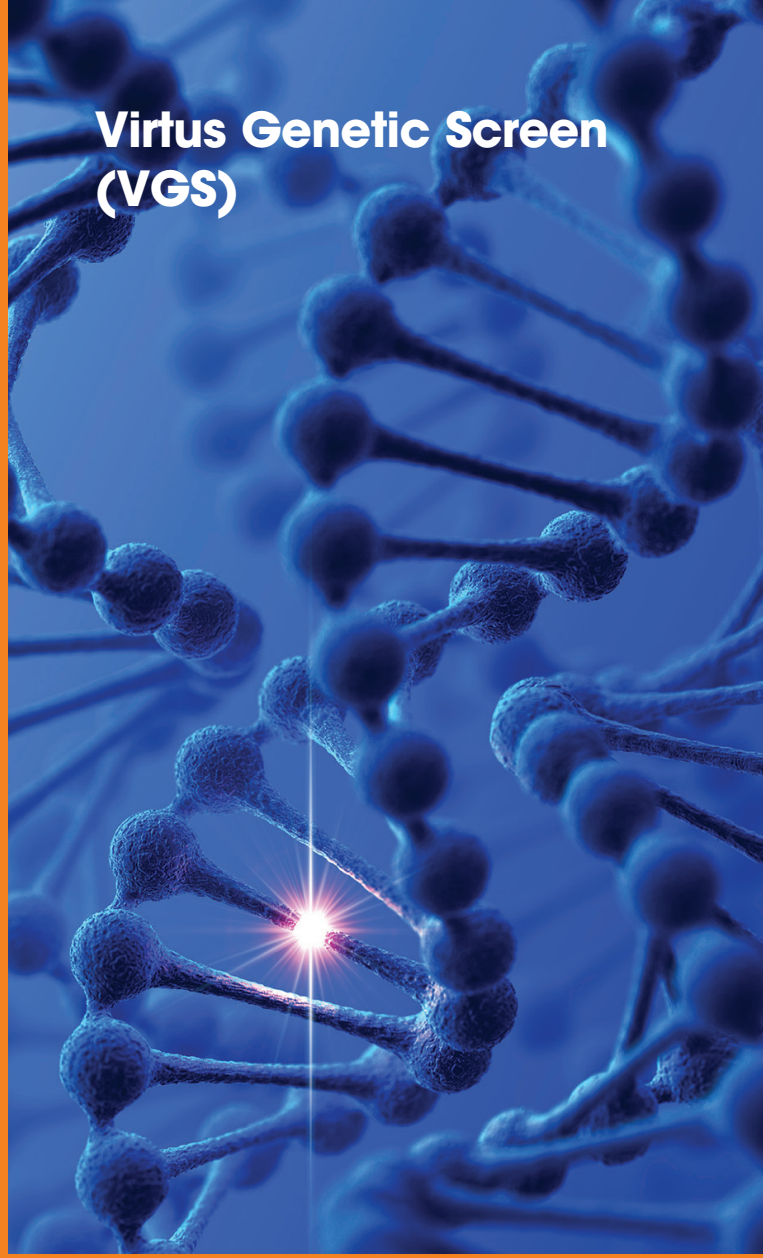
Virtus Genetic Screen (VGS)



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Planning a Pregnancy: could you be a carrier of a common genetic condition?

Carriers of commonly inherited conditions such as; Cystic Fibrosis (CF), Fragile X Syndrome (FXS) and Spinal Muscular Atrophy (SMA) are generally healthy adults with no family history of the disorder and consequently unaware of their carrier status. Preconception Genetic Screening will allow you to find out if you and your partner are carriers and at risk of having a child with one of these conditions.

It is recommended that the female is screened first and a partner will only need to be tested if she is found to be a carrier.

What causes these conditions?

Genetic conditions are caused by changes in genes, which provide the instructions for our bodies. Babies inherit one copy of each gene from each parent. Some people carry changes in a gene which can mean there is a chance that they may have a child with a genetic condition.

Genetic carrier screening gives individuals and couples information about their risk of having a child with a genetic condition. The VGS test is a simple blood test which can be arranged through your doctor. It will tell you if you are a carrier for three commonly inherited conditions: Cystic Fibrosis, Fragile X Syndrome and Spinal Muscular Atrophy.

What is the chance that I could be a carrier?

What is the chance that I could be a carrier?	Number of people with the condition	Number of people who are carriers of the condition
CYSTIC FIBROSIS CF	1 in 2500	1 in 20 to 1 in 30
FRAGILE X SYNDROME FXS	1 in 4000	1 in 150
SPINAL MUSCULAR ATROPHY SMA	1 in 6000 to 1 in 10,000	1 in 40 to 1 in 60

Two people who are carriers of a change in either CF or SMA genes have a 25% (1 in 4) chance of having an affected child. Only females who are carriers of a Fragile X gene that is increased in size are at risk of an affected child. They have a 50% (1 in 2) chance of passing this to a child.

Family history of CF, FXS or SMA

If you have a family history of one of these disorders, you and your partner may have a greater risk of affecting your child than the general population and you should both consider screening.

If you have a new partner for a subsequent pregnancy, consideration should be given to having the new partner tested.

If the tests show that we are at risk of having a child with CF, FXS or SMA, what happens next?

If you or your partner are carriers of CF, FXS or SMA you will be offered genetic counselling. The genetic counsellor will talk to you about your results, options for further testing and can help with making decisions and providing support.

What is Cystic Fibrosis?

Cystic Fibrosis is an inherited disorder which affects all organs in the body. The major impact is on the lungs and digestive system. Thick mucus builds up, trapping bacteria leading to recurrent infections which damage the lungs. In the gut thick mucus makes digestion of food difficult.

A person with CF requires medical treatment from birth and throughout their entire life. Daily physiotherapy is needed for their lungs and frequent medical treatments such as antibiotics are required to treat bacterial infections.

Despite modern treatment there is currently no cure for CF sufferers who experience a reduced life expectancy, often needing extreme treatments like a heart and lung transplant.

Male CF carriers may have an alteration in the gene that is associated with infertility; carrier rates for CF are higher in infertile couples.

What is Fragile X Syndrome?

Fragile X syndrome causes intellectual disability that ranges from mild, through moderate to severe.

Fragile X affects both males and females with symptoms including learning difficulties, anxiety, autism, epilepsy and hyperactive behaviour. Males are more likely to be affected with physical indicators including large ears, a long face, a prominent jaw, a prominent forehead and flat feet. Females usually have milder intellectual symptoms however they can develop premature ovarian failure before the age of 40 years.

There is no cure for Fragile X but some educational, behavioural and medical interventions can improve outcomes in some people with Fragile X.

What is Spinal Muscular Atrophy?

Spinal Muscular Atrophy (SMA) is a neuromuscular disorder characterised by loss of motor neurons and progressive muscle wasting. Age of onset and severity are variable, from severe forms causing death in early childhood to later onset forms which may not reduce life expectancy.

A drug has recently been released in Australia to help in the treatment of SMA after an individual has been diagnosed with the disorder; however this medication is not a cure.

Accuracy of testing

The current screening tests detect most carriers but they cannot detect every possible change in these genes that may cause the disorder. There is still a small chance that you may be a carrier.

Virtus Diagnostics currently offers the most comprehensive coverage for CF testing utlilising the latest technology.

VGS Screening costs

Genetic screening is not covered by Medicare. For current test fees, please contact Virtus Diagnostics.