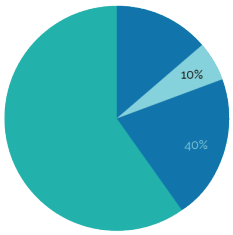
variantyx

Genomic Inform™ Test

Comprehensive predisposition testing for breast, ovarian and other cancers

The genetics of hereditary cancer



Everyone has some risk of developing cancer. In fact, nearly 40% of people will be diagnosed with cancer at some time during their lifetime. Most often cancer is caused by mutations that arise as a consequence of DNA damage due to factors such as smoking or exposure to UV light, or as the result of aging. However, in 5-10% of cases, cancer is the result of hereditary variants. Having one of these variants, inherited from either or both parents, does not mean that you will develop cancer, but it does mean that you have an increased risk of developing cancer during your lifetime. The Genomic Inform™ test can identify if you are at risk before cancer develops. So you can adopt increased surveillance or other proactive management strategies to potentially avoid or minimize the impact of cancer.

The role of BRCA1 and BRCA2

You've likely heard of the BRCA1 and BRCA2 genes, which stand for Breast Cancer Associated 1 and 2 respectively. Their identification led to the launch of the first clinical testing service for hereditary cancer in 1995. In the 20+ years since their discovery, more than 4,000 variants that lead to an increased risk of breast and/or ovarian cancer have been identified in these two genes. Both BRCA1 and BRCA2 continue to be the focus of most predisposition testing for breast and ovarian cancer, but there are other genes with variants that are now known to cause a similar risk including BARD1, BRIP1, CDH1, CHEK2, PALB1, PTEN and others. There are even more genes with variants that are known to cause other types of cancers including colorectal cancer, melanoma, pancreatic cancer, prostate cancer and more. When selecting a proactive genetic screening test it's important to consider how well the test covers BRCA1 and BRCA2 variants, but also how well it covers variants in other genes.

Not all genetic tests are created equal

At home DNA tests are everywhere these days, offering to provide information about not just your ancestry but also your health. It's important to understand that direct-to-consumer testing services like 23andMe and others look at only a small number of variants for each condition. For BRCA1 and BRCA2, that number can be as low as only 3 variants. And oftentimes the variants are only relevant for individuals of specific descent such as European or Ashkenazi Jewish.

Clinical tests provide significantly more comprehensive and reliable results when compared to direct-to-consumer tests, but even they are affected by the choice of sequencing technology used. Most employ technologies that cover only 0.02% to 2% of an individual's DNA. This means that certain types of complex variants will be missed, and that certain genes might not be included at all. In contrast, with the Genomic Inform™ test, your entire DNA is sequenced so that these blind spots are avoided. The result of using better sequencing technology is that hereditary cancer testing isn't limited to 3 variants in 2 genes. All of the more than 4,000 pathogenic BRCA1 and BRCA2 variants will be identified. Along with thousands of other variants in other genes that are known to increase the risk of developing cancer.

Why Genomic Inform™ test?

While there are multiple hereditary cancer testing options available, only the Genomic Inform™ test offers a comprehensive screen for all types of hereditary cancers. Using technology that sequences your entire DNA makes it uniquely possible to detect all types of variants in all genes that have been shown to cause an increased risk of developing cancer.

Genomic Inform™ additionally provides information about inherited risk for diseases other than cancer, carrier status and pharmacogenomic variants that affect drug response. All within a single test.

Variantyx Inc.
1671 Worcester Road, Suite 300
Framingham MA 01701

Controlled document #: DCMMPRC60002X
Updated 09-6-2019

617 209 2090
info@variantyx.com
www.variantyx.com/genomic-inform