BRCA Testing for
Hereditary Breast and /or Ovarian Cancer

NEWSLETTER

Source: Lancet Laboratories SA

Hereditary breast and ovarian cancer syndrome is a type of familial cancer, and is linked to mutations in two genes called BRCA1 and BRCA2. BRCA1 and BRCA2 are known as tumour suppressor genes – they prevent cells from growing too rapidly or in an uncontrolled way. Thousands of mutations have been found in these genes, but only some have been linked to an increased risk of cancer.
Inheriting one of these mutations in BRCA1 or BRCA2 increases your risk of developing breast, ovarian, and certain other types of cancer. Not all cases of breast or ovarian cancer are associated with mutations in BRCA1 and BRCA2. In fact, only 5 – 10% of breast cancer cases and 10 – 15% of ovarian cancer cases are due to mutations in BRCA1 and BRCA2.

What is **hereditary or familial cancer?**

Hereditary **breast and ovarian cancer syndrome are types of familial cancer** and can be linked to mutations in two genes called BRCA1 and BRCA2. BRCA1 and BRCA2 are known as tumour suppressor genes – they prevent cells from growing too rapidly or in an uncontrolled way. Thousands of mutations have been found in these genes, but only some have been linked to an increased risk of cancer.

Which **other cancers are associated with BRCA gene faults?**

Women with a BRCA1 or BRCA2 mutation are also at increased risk of cancer of the fallopian tubes, pancreas, and peritoneum (the membrane that lines the abdomen and the organs in the abdomen). Men with a BRCA1 or BRCA2 mutation are at increased risk of cancer of the breast, prostate, and pancreas.

DID YOU KNOW?

How many people carry **a BRCA gene mutation?**

About 1 in 300 people carry a BRCA1 mutation.

About 1 in 800 people carry a BRCA2 mutation.

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Understanding your test results

It is strongly advised that you should have genetic counselling before and after testing for any cancer-related gene mutations.

This will help you to understand which specific blood test is needed based on your personal and family history, how the test is done, what the test results mean, and help you to set up a management plan or protocol based on your results.

Having a BRCA mutation means you can pass it on to your offspring. Each kid has a 50 percent risk of acquiring their parent's BRCA gene mutation. Your siblings may also have inherited the BRCA gene mutation.

A Positive BRCA gene mutation results mean?

If a known Cancer-associated mutation is found in a BRCA Gene, you have **an increased risk of developing Cancer.**

	Breast Cancer	Ovarian Cancer
Risk for the general population	11%	1-2%
Risk for BRCA1 mutation	60-80%	60-80%
Risk for BRCA2 mutation	60-80%	10-30%

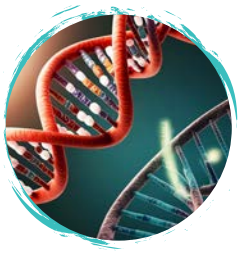
Table 1. Risk of developing breast or ovarian cancer for women with BRCA mutations.

This test does NOT mean that you will cancer. No test can tell definitely. Discuss breast cancer prevention strategies, such as enhanced screening, medication, and surgery, with your genetic counselor and healthcare provider.

How do I know if I should I test for a BRCA gene mutation?

A genetic risk assessment and potential BRCA gene mutation testing is recommended if you have any of the following:

- A personal or family history of breast and/or ovarian cancer.
- If you were younger than 50 years of age when breast cancer was diagnosed.
- If you have had breast cancer diagnosed more than once (in the same breast or in both breasts).
- If you are a man and diagnosed with breast cancer at any age.
- If you have a close relative with a known BRCA1 or BRCA2 mutation.
- If your personal and family history is suggestive of a BRCA gene mutation, a blood sample will be taken for genetic testing of the BRCA1 and BRCA2 genes. If a specific BRCA gene fault is known in your family, at risk relatives can be tested for that specific mutation.



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