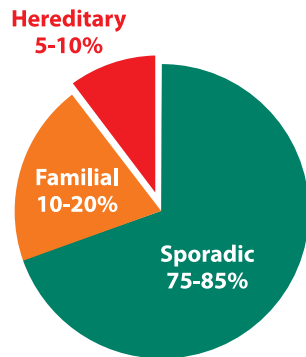


Things to consider before genetic testing?

Genetic testing can help you understand the risk of developing cancer or passing it on to your children. It is a personal decision you should make in collaboration with your family, doctor, and genetic counsellor.

- It may disclose a result more than just "Yes" or "No".
- It may affect your medical decisions related to surgery, medication and future screening.
- You may experience different types of emotions, such as relief, anxiety, hope, confusion, guilt or worry.
- The result may affect your family.
- The result may affect your insurance.

Cancer Genetic Risk Assessment



Sporadic: 75-85%

- Common cancer at typical age
- Little or no family history of cancer
- Cancer occurs by chance or related to environmental factors

Familial: 10-20%

- Cluster of cancers in family
- May be due to chance
- Multiple genes or environmental factors maybe involved

Hereditary: 5-10%

- Strong family history of cancer
- Earlier age of onset than typical
- Multiple primary cancers in an individual
- Bilateral or Multifocal cancers
- Gene mutation is inherited in family



My family is important. *I want to do what is right for them. Getting information is something I can do.*

How can I get more information?

Review your family history of cancer with your doctor.

Referral information Cancer Genetics Service

National Cancer Centre Singapore
Level B2, 11 Hospital Drive Singapore 169610
Call **6436 8088** for a referral or an appointment.

Mondays - Fridays: 8.30am to 5.30pm
Closed on Saturdays, Sundays and Public Holidays

For general information about cancer:

Call the Cancer Helpline at **6225 5655**
or email cancerhelpline@nccs.com.sg

Visit the Cancer Genetics Service webpage at
<http://www.nccs.com.sg/PatientCare/CancerGeneticsService>

This is a public education initiative by:
Cancer Education & Information Service

What is Genetic Testing for Cancer?

Know your Risk of Cancer



Genetic testing helps predict the likelihood of a person to develop a disease, including some types of cancer.

What is genetic testing for cancer risk?

Genetic testing for cancer risk can help estimate the chance of developing cancer in your lifetime. More than 2,000 genetic tests are available for different diseases, which includes breast, ovarian, colon, thyroid, and other cancers. The tests analyse your genes, chromosomes, or proteins to help:

- Predict your risk of developing a particular disease.
- Find out if you have genes linked with increased cancer risk that can be passed on to your children.
- Determine how to manage increased cancer risk, such as more frequent screening or different ways to lower risk.

Genetic test cannot report with 100% certainty if you will develop cancer. However, the tests can tell you if you have a higher risk of developing cancer than the general population. Not everyone with a gene mutation that increases the risk of cancer will develop the disease. For example, a woman with a 75% chance of developing breast cancer may remain healthy. On the other hand, a woman with a 25% chance of developing breast cancer may eventually develop cancer.

Genetic counselling is necessary before and after the test.



Worrying was not helping. *I checked my family history with my doctor. Now we can do something about it.*

Genetic testing is a personal decision with many factors to consider.

When should I consider genetic testing?

The following factors suggest that a person may be at risk for developing a hereditary cancer. Hereditary cancers are any cancers caused by gene mutations, or changes that can be inherited.

- **Family history of cancer.** Three or more relatives on the same side of the family with the same or related forms of cancer.
- **Cancer at an early age.** Two or more relatives diagnosed with cancer at an early age.
- **Multiple cancers.** Two or more types of cancer in the same relative.

How are cancer and genes related?

Each gene has specific function in the body. Some genes control cell division, when changes (mutations) occur in these genes, a cell may begin to divide without control. Cells that divide when they are not supposed to may eventually become a cancer. Several gene mutations happen over time that may result in cancer. That is why most cancers develop in people older than 60 years of age.

All cancers are genetic, but only a small number of cancers are hereditary.

What is hereditary cancer?

Hereditary cancer is cancer that runs in a family. It happens when a change (mutation) in a gene is passed down from one generation to the next. A person who is born with a mutation has it in every cell in his/her body, including some of the eggs or sperm. This means it may be passed down when that person has children. People who inherit such gene mutations have a higher risk of developing certain forms of cancer compared to general population. That is why hereditary cancer is seen at younger ages and more people than expected with certain kinds of cancer.

In hereditary cancer, gene mutations are sometimes passed down from a father or a mother. Persons born with a gene mutation may or may not develop cancer, but their risk of cancer is greater.

