
WHAT IF I HAVE A FAMILY HISTORY OF CANCER?

Cancer is common - many people will have someone in their family who has (or had) cancer. Many people worry about what it might mean for their own health if there are people in their family who have developed cancer.

Cancer can occur in more than one person in the family:

- ◆ just by chance (mostly the case)
- ◆ because family members have environmental and lifestyle influences in common (eg: too much sun or smoking)
- ◆ because there is an inherited faulty gene causing an increased chance of cancer (uncommon)

It is important to know that only a very small percentage of certain cancers (**up to 5%**) are due to a faulty gene inherited from either the father or the mother.

Even if a faulty gene causing an increased chance of cancer is being passed down in your family, it does not mean you will automatically have inherited this faulty gene.

Faulty genes and cancer

Our bodies are made up of billions of tiny cells. These cells contain a copy of the genetic plan for our growth, development and health.

This genetic plan comes in the form of **genes** which we inherit from our parents. Our genes decide features such as the colour of our eyes, hair and skin and whether we are tall or short.

Everyone has some faulty genes. Sometimes they have been inherited from our parents. Faults in genes also build up during our life as we age. Usually faulty genes don't cause us any problems.

Sometimes however, our faulty genes cause, or make us more prone to, particular health problems.

Over the last 10 years, scientists have made some important discoveries about the role faulty genes play in cancer.

What types of cancer can be due to an inherited faulty gene?

It is thought that up to 5% of the following types of cancer may involve an inherited faulty gene.

1. bowel cancer
2. breast and ovarian cancer
3. melanoma

In rare cases, there may be a number of people in a family who developed less common cancers in a pattern that suggests an inherited faulty gene is present. It is therefore important to look at all the different types of cancer that have occurred in the family.

How can I tell if my family history of cancer is of concern?

Look at the family history on both your father's and your mother's side of the family. The clues that cancers in the family may be due to an inherited faulty gene include:

- A) *The **number** of blood relatives* who developed cancer*
The more blood relatives* who have developed cancer (in particular breast, ovarian and/or bowel cancer), the more likely the cancer is due to an inherited faulty gene.
- B) *The **ages** at which cancers in the family developed*
The younger people were when they developed cancer (compared to what is expected in the general community), the more likely it is to be due to hereditary factors.
- C) *The **pattern** of cancer in the family*
The types of cancer and who it affects in the family are important. In some families there are a number of blood relatives* who develop the same type of cancer (such as breast cancer or bowel cancer). In other families there are particular cancers running in the family (such as breast and ovarian cancer or bowel cancer and cancer of the uterus). This happens because some faulty genes can cause more than one type of cancer.

*Blood relatives: related by blood, not marriage.

The more clues that are present, the more likely it is that there is an inherited faulty gene in the family causing a higher than usual chance of cancer. However it is not definite. It is important to know that some people who inherit a faulty gene which causes an increased chance of cancer, never go on to develop cancer.

What should I do if I am worried about my family history of cancer?

Find out what types of cancer have occurred in your family and how old each person was when they got cancer. It is also important to record the family members not affected by cancer. Talk to your doctor who can help you find out if your family history of cancer is of concern. If necessary, your doctor may refer you to a family cancer clinic or genetic counselling service.

Your family history of cancer can change over time so it is important to keep your doctor updated about any new cancers.

Family cancer and genetic counselling services

These services give people information about their chance of developing cancer based on their family history. A doctor's referral is needed to attend.

The services discuss ways that may help reduce the chance of cancer developing and methods of picking it up early. Sometimes genetic testing is possible, but it is only done after the advantages and disadvantages of testing for the person and their family are discussed.

For more information about family cancer and genetic counselling services you can contact your general practitioner, the NSW Cancer Council's Cancer Helpline on 13 11 20 or the NSW Genetics Education Program on (02) 9926 7324.

June 2000