Why does breast or ovarian cancer occur?

Sometimes a gene, which normally protects against cancer, develops a fault (mutation). When this occurs, the cells are not affected by cancer. The risk of developing breast or ovarian cancer increases with age.

A woman could be at potentially high risk of developing either breast or ovarian cancer if:

- She has had a genetic test that has shown that she has an inherited fault in a breast or ovarian cancer-predisposing gene.
- She has a family history of breast or ovarian cancer.

Because breast cancer is common, many women will have a family history of breast or ovarian cancer. Relatives could be on either the father’s or mother’s side of the family. For key statistics about breast and ovarian cancer see canceraustralia.gov.au.

What are the “risk factors” for breast and ovarian cancer?

There are many things, called risk factors, which can increase a woman’s chance of developing breast or ovarian cancer.

- Being female
- Increasing age
- Family history
- Inheritance

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A family history of breast or ovarian cancer means having one or more female relatives with breast or ovarian cancer.

- Inherited breast or ovarian cancer is called “gene fault”.
- Breast cancer caused by inheriting a faulty gene is called “breast cancer one” and “breast cancer two”. If a woman has inherited a fault in one of these genes, she has a high chance of developing breast or ovarian cancer. If she has inherited a fault in both of these genes, she has a very high chance of developing breast or ovarian cancer.

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Early detection - what women can do

This guide is for health professionals to use when discussing risk assessment with women affected by breast cancer. It provides information about a person’s risk of developing cancer.

1. Three or more close relatives on the same side of the family with breast or ovarian cancer
2. Inherited breast or ovarian cancer
3. A woman who has had breast cancer before the age of 40
4. Advanced breast or ovarian cancer

Inheriting a breast or ovarian cancer gene fault

Breast or ovarian cancer caused by inheriting a faulty gene is called breast cancer gene fault. The risk of breast or ovarian cancer is increased by several factors. The risk of developing breast cancer increases with age. Sometimes there is a fault in one copy of a gene which stops that gene working properly. This means that an inherited fault in a breast or ovarian cancer-predisposing gene increases the risk of developing breast or ovarian cancer.

To estimate the risk of a woman developing breast or ovarian cancer, based on family history, determine her risk of developing ovarian cancer.

In addition, for women with a family history

Women concerned about their family history can talk to a genetic counsellor to find out if they have inherited a gene fault. Women concerned about their family history should talk to a doctor before considering genetic testing. It is important that women with positive family history and possible consequences of genetic testing.

Advice about familial aspects of breast cancer and epithelial ovarian cancer

A guide for health professionals DECEMBER 2010

This guide has been developed to cover familial aspects of both breast and epithelial ovarian cancer. Most of the information in this guide is based on evidence from clinical and population studies. Some of the information in this guide is based on consensus opinion of experts where evidence does not exist at the date of publication. Information on page three can be used to determine an unexplained woman’s risk factors of breast cancer. A woman’s risk factors of breast cancer can be assessed by asking questions about medical history and family history.

In some families genetic testing can be used to assess risk. The availability, limitations, potential benefits and possible consequences of genetic testing can be discussed at a family cancer clinic.

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