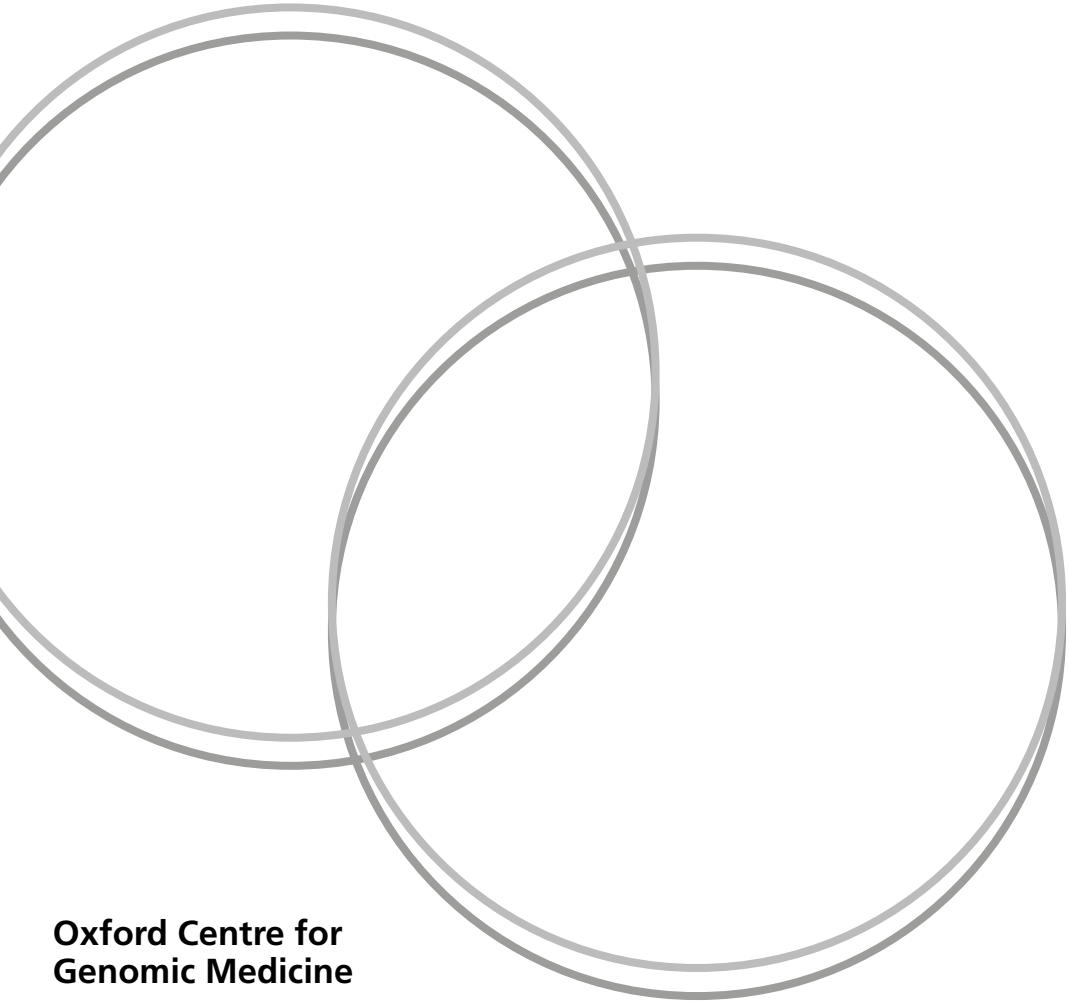
Oxford University Hospitals
NHS Foundation Trust

Breast Cancer in the Family

Information for women **without** an increased risk of breast cancer



Oxford Centre for Genomic Medicine

How common is breast cancer?

About 55,000 women are diagnosed with breast cancer in the UK each year. About 1 in 8 women (12%) will be diagnosed with breast cancer during their lifetime. More than 80% of women who get breast cancer are over 50 years of age.

How often is breast cancer inherited?

Very few women (about 5%) have breast cancer because of an inherited tendency.

Most breast cancers occur due to chance and are not inherited.

How do we recognise inherited breast cancer?

It is unusual to have an inherited tendency to develop breast cancer. It generally only occurs in families where:

- Several close relatives have developed breast cancer
- Individuals had breast cancer at younger ages than is usual
- Some relatives had breast cancer and others developed ovarian cancer
- Someone had both breast and ovarian cancer

In families like this, there may be an altered gene that means people are more likely to develop breast cancer than usual.

Is the cancer in my family inherited?

When we look at your family history we look at the number of relatives who have had cancer, and their ages when they developed it. Cancers occurring at older ages are less likely to be inherited. The types of cancer are also important as only certain types are related to each other. Many cancers, such as lung cancer and cervical cancer, are usually due to environmental rather than genetic effects.

From the information you have given us, the cancers in your family are unlikely to be due to an inherited tendency. It is more likely that the cancers in your family occurred due to chance.

This may be because you only have one or two relatives who have had related types of cancer, or because the cancers have occurred at older ages. If the cancers in your family are in more distant relatives, the risk for you is less likely to be increased, especially if your close relatives have not developed cancer.

Should I be having extra screening?

No. Women without an increased risk are not usually advised to have breast screening before the age of 50. Between the ages of 50 and 70, three yearly mammograms are offered on the NHS National Breast Screening Programme.

What is mammography?

Mammography uses small amounts of X-rays to examine the breast. Exposure to X-rays may increase the chance of a breast cancer very slightly. This is why it is important to balance the risk of cancer against the risk of mammography. We do not want to put women through mammography if it isn't needed.

Mammography may detect changes in the breast that are entirely harmless (benign). Occasionally this can result in someone being recalled for a biopsy. Often these extra tests are normal but may cause increased anxiety. Mammograms do not always pick up breast cancers. This is particularly so in younger women, whose breast tissue is more dense than in older women. For these reasons, it is still debated if mammograms before the age of 50 are beneficial.

Can I have a genetic test for breast cancer inheritance?

It is quite unusual for us to be able to identify a genetic cause even when several people in the family have been diagnosed with breast cancer. This is more likely if three or more close relatives on the same side of the family have developed breast cancer, or sometimes breast and ovarian cancer. These will usually have occurred at younger ages (before the age of fifty). As the cancers in your family are unlikely to be inherited, genetic testing is not likely to be helpful in your family.

What symptoms should I look out for?

It is important to remain breast aware and report any unexplained symptoms to your GP to be checked. In most cases, changes do not mean that you have cancer, but it is worth discussing them with you doctor. In particular you should be aware of any change to the outline or shape of the breast, lumps or bumpy areas. You should also be aware of any pain in one breast that is not normal for you or nipple discharge that is new for you and not milky.

Can I do anything to reduce my risk?

Some lifestyle factors can increase or reduce the risk of breast cancer. Maintaining your weight within normal limits is helpful as evidence indicates that obesity does increase breast cancer risk significantly, particularly after the menopause. Drinking more than 2 units of alcohol a day increases your breast cancer risk. Smoking also increase the risk of breast cancer a small amount.

There is good evidence that women who take at least 30 minutes of moderate exercise 5 times a week can reduce their risk of developing breast cancer. A balanced diet including plenty of fruit and vegetables is also recommended.

How do hormones or environmental factors affect my chances of breast cancer?

Our knowledge of the causes of breast cancer has greatly improved. Unfortunately we still do not understand all of the environmental factors that affect the chances of developing breast cancer. We do know that certain hormonal factors are important because they may increase the risk of breast cancer. They are:

- Starting your periods early (under 12)
- Having a late first pregnancy (over 30)
- Having no children
- Having a late menopause

There is evidence that breastfeeding for a total of 12 months or more may reduce the risk of breast cancer.

Research has shown that taking the Combined Oral Contraceptive Pill has a small effect on the risk for breast cancer.. There is a slightly increased risk while taking the pill but the added risk will fade within a few years of coming off the pill.

There are some concerns about Hormone Replacement Therapy (HRT) and breast cancer. If taken for more than 5 years after a natural menopause, combination HRT, containing oestrogen plus other hormones, does increase the risk of breast cancer a small amount. The longer HRT is taken, the greater the increase in risk. Again, the added risk decreases once HRT is stopped. Using HRT to manage menopausal symptoms is a very personal decision. You will need to talk about this with your GP or gynaecologist.

What about my children?

We have assessed that the cancers in your family are unlikely to have an inherited cause. It is therefore unlikely that your children will inherit an increased tendency to develop cancer from you.

If there is a history of cancer on your partner's side of the family then they may wish to discuss with their GP whether they would also like to be referred to us for assessment of their risk.

What if the family history changes?

If any other members of your family develop cancer, or if you uncover any information about cancers further back in the family it's important to update us as it may change our advice to you.

Further Information

For further information about breast cancer, you may find these organisations helpful:

Breast Cancer Care

Website: **www.breastcancercare.org.uk**

Macmillan Cancer Support

Website: **macmillan.org.uk**

If you need more advice please contact:

Oxford Cancer Genetics Service

Oxford Centre for Genomic Medicine
ACE building (Room 33G16)
Nuffield Orthopaedic Centre
Oxford University Hospitals NHS Foundation Trust
Windmill Road
Headington
Oxford OX3 7HE

Tel: **01865 226 034**

Email: **orh-tr.churchill-clinicalgenetics@nhs.net**

Website: **http://www.ouh.nhs.uk/clinical-genetics**

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

This leaflet is based, with permission, on a leaflet produced by the West Midlands Regional Genetic Service.

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