

Do you have a family history of cancer and have Ashkenazi Jewish or Polish heritage?

BRCA
JOURNEY

You may be at an increased risk of getting cancer.

Information on BRCA gene alterations and support

Some men and women have a genetic BRCA alteration which can increase risks of certain cancers.

“My Grandmother and great aunts had breast or ovarian cancer.

My Mum was worried she would get it too and talked to her doctor - but he didn't mention genetic testing.

A few years later my Mum got breast cancer. We found out she had an inherited genetic BRCA alteration which had increased her risks of getting cancer.

I have inherited the BRCA alteration too”.



What is BRCA?

Everyone has BRCA1 and BRCA2 genes. These genes, known as 'tumour suppressors', protect us from certain types of cancer. If one of them is not working properly because of an 'alteration', we lose some of our natural protection, and our risk of developing some cancers increases.

BRCA alterations are inherited. If a man or a woman has a BRCA alteration there is a 50% chance that they will pass it on to their son or daughter. BRCA alterations can pass between multiple generations of the same family.

What is a gene alteration?

A gene is like an 'instruction manual' that determines how we grow, develop and function. Sometimes genes do not work properly. If there is an alteration (a 'mutation') in the 'code of letters' that make-up the gene e.g. rather like a typo such as FISH instead of DISH, then the gene cannot provide the same level of protection against certain cancers.

What are the risks associated with BRCA alterations?

- Women with a BRCA gene alteration have a 60-80% chance of developing breast cancer at some point in their lives, compared to a 12% chance for those without the alteration.
- Women with a BRCA alteration also have a 20-40% chance of developing ovarian cancer at some point in their lives, compared to approximately a 1.5% chance for those without the alteration.
- Men with a BRCA alteration are at an increased risk of developing breast cancer and prostate cancer.

The level of risk will depend on which gene is altered. The risks of some other types of cancer including pancreatic and melanoma can also be increased.



'My Mum had breast and ovarian cancer. Even though we are Jewish no one mentioned BRCA or asked Mum if she had a daughter. I got breast cancer age 44. It turned out we both have BRCA alterations. If we had known about BRCA I could have had screening or taken action to reduce my risks of developing cancer'



"My Mum and Aunt died of ovarian cancer. As a man you don't really think about breast or ovarian cancer risks. Then my cousin got breast cancer and discovered she had a BRCA alteration. I got tested and found out I had a BRCA alteration. My daughter tested and she does too. She has taken preventative measures to stop herself developing cancer".

Who may have a BRCA alteration?

Men and women can carry a BRCA alteration. You may have an increased chance of having a BRCA alteration if you have:

- had breast cancer at a young age, or some types of ovarian cancer;
- a family history of cancer – most people with a BRCA alteration have a family history of breast, ovarian, prostate or pancreatic cancers, but not everyone will;
- Ashkenazi Jewish heritage - in the general UK population, only about 1 in 800 people carry a BRCA alteration. However, in the Ashkenazi Jewish population, around 1 in 40 (2.5%) will carry a BRCA alteration. There are three alterations more commonly found in the Ashkenazi population;
- Polish heritage.

“I am Jewish and had ovarian cancer at a young age. I then found out I had a BRCA alteration. Since then many other family members have tested positive for the alteration too and opted to have preventative surgery”.

Should I find out if I have a BRCA alteration?

The only way to know if you have a BRCA alteration is through genetic testing. You have to meet certain criteria to be referred for testing and these can be found overleaf.

Testing for BRCA alterations is a personal decision and requires careful consideration as there can be many implications for you and your family.

If you do have an alteration you:

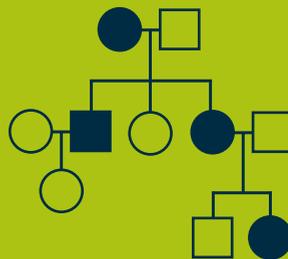
- could be eligible for certain cancer screening.
- could consider taking medication or undergoing surgery to reduce risks (usually women only).
- can raise awareness of potential risks to other family members.

It may also alter your choices over the contraceptive pill, HRT or IVF. If you have cancer it can also help target your treatment.

However it is also important to understand there may be positive or negative psychological impacts of knowing.

BRCA Journey can provide you with confidential non-medical advice and support at any stage of your BRCA Journey. Further information is overleaf.

Your family tree matters



Even if you are not eligible for genetic testing or if you decide not to test for BRCA, but have signs of cancer, you should always tell your doctor about any family history of cancer, Ashkenazi or Polish heritage you may have and ensure the doctor understands the potential increased risks.

"My Mum, Grandmother and Aunt all had breast cancer. Support from others really helped me decide to test. I tested and I do not have the BRCA alteration!"



Further information and support is available from BRCA Journey

We are a group of people in Leeds who have personal experience or professional interest in hereditary cancer risk, particularly in the Jewish community.

Our aims are to promote awareness of BRCA alterations in the Jewish (and general) population and to offer confidential support and non-medical information to people who want it e.g. if they:

- are considering genetic testing;
- have a family history of cancer but aren't sure whether to seek advice;
- have been given a high genetic risk of developing cancer (or have a genetic related cancer) and want to meet others in a similar situation.

Please note, this information and support is not a substitute for genetic counselling, which is a requirement for people considering genetic testing.

We are also keen to promote awareness of BRCA alterations amongst health professionals who might see people in the Jewish community.

Get in touch

Email: brcajourney@gmail.com

Facebook: BRCA Journey

Twitter: @BRCA_Journey

Other sources of information

www.nhs.uk/Conditions/predictive-genetic-tests-cancer

Who can be referred for genetic testing?

If you are interested in genetic testing you should discuss this with your GP who can refer you. The most recent referral guidelines suggest that BRCA testing can be offered to people with Ashkenazi Jewish or Polish ancestry, who are either:

- Women with breast cancer under the age of 50.
- Men with a BRCA-related cancer (men may not necessarily be offered testing if not diagnosed with breast cancer, but queries can be discussed with clinical genetics).
- Women with epithelial ovarian cancer at any age.
- Unaffected people with a first degree relative (parent, sibling, child) with breast cancer under 50/ovarian cancer/male BRCA-related cancer, AND a Manchester score of 10 or over. (The Manchester score refers to a scoring system used by clinical genetics to determine the likelihood of a family history being due to genetic factors).

Usually you must be over 18 years old to have a genetic test for BRCA alterations.