# GENETIC TESTING FOR PEOPLE AFFECTED BY BREAST CANCER

## WHY HAVE I BEEN OFFERED A GENETIC TEST?

Around one in eight women and a small number of men will be diagnosed with breast cancer during their lives. Some of these are eligible for genetic testing.

Only a small number of those tested will have changes in their genetic makeup that has affected their risk of getting cancer. This information may help your doctor and you in **making the best choices for your current and future treatments**.

It is important for you to know that the test can also give you information about your risk of developing other cancers. The results might also provide information about **your relatives'** risk of developing cancer.

## THE TEST

The test is carried out on a blood sample and looks for changes in genes* known to be associated with breast cancer risk.

## THE RESULTS

Possible outcomes of genetic testing:

- **No gene change identified:** In most people the test will NOT find a gene change. This reduces the chance of a predisposing gene being responsible for your cancer.
- **"Pathogenic" or "Likely Pathogenic" (disease-causing) gene change identified**: This confirms an inherited risk and may help in making decisions about your treatment. It may also confirm that your risk of another cancer is increased. Because we share genes with our relatives, there is a chance they may have an increased risk of cancer too. It would be possible for them to have a genetic test.
- **"Variant of unknown clinical significance":** We all carry variations in our genetic code. The majority of these are NOT linked to disease. If testing identifies a variant which requires further assessment, this will be discussed with you.

## WHAT WILL HAPPEN NEXT IF I AGREE TO TESTING?

If you decide to have the test, you will be asked to sign a consent form. A blood sample will be taken for the test and sent to the laboratory.

## WHAT IF I WANT MORE INFORMATION ABOUT HAVING THE TEST?

Genetic testing is now an **important test in cancer care** and can provide your specialist with information to help decide the best treatment for your cancer. Knowing about

increased risk means that additional screening to detect the early signs of cancer may be available, or there may be other steps to reduce the risk.

It can also provide **important information for your relatives**, which may reduce their chance of developing a cancer in the future.

However, you do have the right not to have genetic testing. Please speak with your cancer clinician if you have questions. Alternatively, you can contact the duty genetic counsellor (contact details below).

## HOW WILL I RECEIVE MY RESULT?

Your cancer clinician will inform you of the result. The result will usually take up to 10 weeks but may be sooner if your doctor requests this for immediate clinical reasons (not usually before 4-5 weeks).

**If your test finds a change in one of the genes, the genetic clinic will send you an appointment** soon afterwards. At the genetic clinic you will meet with a genetic clinician who will discuss your result with you and what it might mean for you and your relatives. There will be time to think about the best way forward for you and they can spend time answering any questions you might have. If appropriate, they will also provide you with information that you can share with relatives.

## WHAT IF I STILL HAVE MORE QUESTIONS?

**If your genetic test does not find any genetic changes but you have a family history of cancer, it is still possible that your relatives may have an increased risk of developing cancer. If you are concerned about your family history, you can ask your GP or cancer clinician to refer you to Clinical Genetics.**

*A limitation of any genetic test is that just like much of medical science, we cannot yet know with certainty all the factors that influence health. Very occasionally the current understanding of a gene change or variant may change as more information becomes available.*

*Current breast cancer panel: *BRCA1, BRCA2, PALB2, PTEN, TP53, STK11, CHEK2, ATM, RAD51C, RAD51D.*

## CONTACT DETAILS FOR THE GENETIC SERVICES

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