

Women's Health Week

The BRCA Genes Explained



Breast and Ovarian cancer is common within the Jewish population. One of the reasons for this is GENETICS. 1 in 40 Jewish people carry a fault in the BRCA1 or BRCA2 genes, in comparison to 1 in 500 people in the general population carrying a fault in these genes.

If a woman inherits a faulty BRCA1 or BRCA2 gene from either her mother or father, the chances of her developing breast and ovarian cancer is significantly higher than average, and if a man inherits a faulty BRCA1 or BRCA2 gene then the chances of him developing prostate cancer is significantly higher than average.

Children have a 50% chance of inheriting the genetic fault from their parents and are therefore also at an increased risk of developing cancer, if their mother or father carries a BRCA1 or BRCA2 gene fault.

Many people within the Jewish community are aware of the genetic carrier testing program offered at Jewish schools or before marriage or pregnancy. This program offers genetic testing for medical conditions called recessive conditions. This means that if you are a carrier of one of these conditions, you are healthy and are not affected by the condition, however if you and your partner carry a genetic fault for the same condition then your baby has a 1 in 4 chance of being affected with the condition. This testing is about the risk of your future child being born with a serious medical condition, and therefore the testing is offered to young people before they start a family.

The BRCA1/2 genes are different, as they are dominant genes. This means that if you carry one faulty copy of the BRCA1 or BRCA2 gene then you **personally** have an increased risk of developing breast and ovarian cancer. BRCA1/2 testing is not only about the risk to your children, it is about the risk of you personally developing cancer, and therefore is useful information for anyone over the age of 18.

If you find out that you carry a faulty BRCA1 or BRCA2 gene, there are options available to you, to help significantly decrease the risk of developing cancer and/or to detect the cancer early. This includes surgical options, medications available, and regular screening tests.

JeneScreen is an online BRCA1/2 genetic testing program, available to everyone over the age of 18 in the Sydney and Melbourne Jewish communities. JeneScreen offers the BRCA1/2 test to everyone, free of charge, irrelevant of whether they have a personal or family history of cancer. You can obtain all of the information required to make an informed decision about whether or not you'd like to undergo the test through an interactive website. Please go to <https://www.genetics.wolper.com.au/brca> to obtain more information about JeneScreen, and you can consent to the test there. Feel free to contact the Genetic counsellor, Nicole Cousens on Nicole.cousens@health.nsw.gov.au with any questions.

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