

IT'S IN THE GENES


A deeper look into the genetic mutations that are responsible for a percentage of breast cancers...

As we go into Breast Cancer Awareness month, the memory of famous A-List American actress, Angelina Jolie's bold decision to have a double mastectomy (despite not being diagnosed with breast cancer) still lingers fresh in our memories. One woman's public decision has been the source of much international debate in month's past, and for many of us, has aroused our curiosity around this so-called genetic mutation, and of course, whether or not we are carriers of this 'faulty' breast cancer gene.

By Samantha Watt



Family ties and genetics

 Dr Owen Nosworthy, a leading oncologist from the Wits Donald Gordon Medical Centre in Johannesburg, says that the average woman over the age of 35 has a 10-15% chance of developing breast cancer within their lifetime – and that is before one even takes genetics and family history into account. He adds that a family history of one close relative with breast cancer will double a person's risk of developing breast cancer, and two or more close relatives with breast cancer will triple a woman's risk. Interestingly Dr Nosworthy explains that your risk is only increased if your close relatives have had breast or ovarian cancer (as was the case with Jolie's mom who died of ovarian cancer) and does not apply to other cancers such as colon or lung cancer. Professor Justus Apffelstaedt, Chairman of

the Breast Interest Group of Southern Africa (BIGOSA) and the Head of the Breast Clinic at the Tygerberg Hospital, goes on to explain that breast cancer (BRCA) genes 1 and 2 are present in all human beings. He says that when functioning normally, these genes suppress the formation of cancers. He however adds, "If the BRCA genes malfunction, due to changes called mutations, women have a very high (up to 90%) chance of suffering breast cancer during their life-time. In women, next to breast cancer, ovarian cancer is a significant risk."

Taking the edge off this frightening statistic is the fact that the mutated gene associated with breast cancer is actually not very common. In fact Dr Nosworthy says, "It only occurs in 5% of people who have been diagnosed with breast cancer."

Testing for BRCA gene abnormalities

If you have a close family member that has been diagnosed with breast or ovarian cancer and you are concerned about your risk, Professor Apffelstaedt suggests that you have your history assessed by a medical practitioner with a special interest in breast health issues, in addition to being counselled on how to manage your risk. Dr Nosworthy agrees and says that one should first discuss your risk with your doctor, who will refer you for the testing, if appropriate.

Where to go for testing

Professor Apffelstaedt says that counselling and testing is available in major private and public sector academic centres such as:

- ❖ Tygerberg and Groote Schuur Hospitals in the Western Cape
- ❖ Helen Joseph and Baragwanath Hospitals in Gauteng
- ❖ Albert Luthuli Hospital in Kwa-Zulu Natal