Information for women about family history of breast cancer

Why does breast cancer occur?

The cells in your breasts are constantly being replaced by a process of cell division. Sometimes, particularly as you get older, a mistake in cell division occurs. Usually your body can detect and eliminate abnormal cells, but if the mistake is not detected, abnormal cells grow out of control, and a cancer forms.

Part of your body's protective mechanism is in the form of genes which protect against cancer. We all inherit a set of genes from each of our parents. Sometimes we also inherit a fault in one copy of a gene, from one or other parent, which stops that gene from working properly. When the fault involves the genes that protect against breast cancer, inheriting one faulty copy, (known as a *mutation*), increases your chance of developing breast cancer and may mean that you will develop breast cancer earlier than other women, who carry two working copies of the same gene. It is important to remember that not all women with an inherited gene mutation will develop breast cancer, although the risk of this is increased.

What is my risk of developing breast cancer?

About one in 8 women in the general population will develop breast cancer before the age of 85. Most of these women will develop breast cancer after the age of 50 and do *not* have a significant family history of breast cancer.

For women with a known gene fault or a strong family history which is very suggestive of a gene fault, the lifetime risk of breast cancer is higher – maybe as high as 40-80% lifetime risk. This is why we assess your family history.

What is a strong family history?

Because breast cancer is common, many women have a relative who has had breast cancer. At SBC we use the Australian risk categorisations: Normal risk (Category 1), Moderately Increased Risk (Category 2) and Potentially High Risk (Category 3).

Category 1
(95% of women). No or very little increased risk of breast cancer. This category includes women with one relative diagnosed with breast cancer over the age of 50.

Category 2
(<4% of women). The lifetime risk for developing breast cancer is around 15-25%. Typically there is a family history of one or two close relatives diagnosed with breast cancer before the age of 50.

Category 3
(<1% of women). The lifetime risk of breast cancer is 40-80%, There is a family history of three or more close relatives (female or male, and often young at time of diagnosis) who have had breast cancer, ovarian cancer, or some rare cancers, and the breast cancer may have affected both breasts.

If we assess your Family History Risk as Category 3, we will generally talk to you about seeing a geneticist or family cancer clinic, for genetic counselling and support. We will also discuss increasing your breast cancer surveillance, and ways you can reduce your risk of breast cancer.