

Hereditary Breast and Ovarian Cancer Syndrome (HBOC)

What is HBOC Syndrome?

Hereditary breast and ovarian cancer syndrome is caused by inherited gene mutations in *BRCA1* and/or *BRCA2*. Some facts that we know about HBOC are:

- Women with HBOC have a high risk to develop breast and ovarian cancer in their lifetime and often at very young ages.
- Men with HBOC have a higher risk of developing prostate cancer and male breast cancer.
- Men and women may also have a higher risk to develop other cancers, and are at risk to develop more than one cancer in their lifetime.

The options for the early detection and prevention of cancer include many factors and depend on your age, medical history and individual preferences.

Early detection of cancer in HBOC

Early detection refers to tests for cancer when there are no symptoms.

- For women with HBOC, breast screening with a mammogram and breast MRI is started by age 30.
- Screening for ovarian cancer is not currently recommended, because there are no effective screening tests known for this disease.
- Screening for prostate cancer and male breast cancer in men may be considered after age 40.

Cancer Prevention in HBOC

Prevention refers to a medical procedure that lowers the chance that a person will develop cancer.

- Women with HBOC can choose to have a preventive mastectomy of both breasts. This means the removal of all breast tissue without a diagnosis of cancer. This surgery has been proven to dramatically reduce the risk of breast cancer in high risk women. Women with HBOC may be advised to remove their ovaries and fallopian tubes after age 35 to 40, when they no longer plan to have any or more children. This recommendation is made as there are no effective screening tests and ovarian cancer often presents at a late stage when it is difficult to treat.
- Women at increased risk for breast cancer may have the option to take medications to lower their cancer risk.

What does it mean for the relatives of a person with HBOC?

First degree relatives of a gene mutation carrier (children, brothers and sisters) have a 50% chance to have inherited the gene mutation and 50% chance that they did not.

As all blood relatives over the age of 18 may be at risk, we highly recommend all family members be notified of a *BRCA1* or *BRCA2* mutation in the family. This includes aunts, uncles, cousins and grandparents. These individuals can then request a referral to a genetic counsellor to discuss genetic testing and their options.

Where can I go for more information?

If you have a diagnosis of HBOC syndrome, we recommend that you write down the names and contact numbers of your genetics health care providers:

Genetic Counsellor: _____

Medical Oncologist: _____

Nurse Navigator: _____