

Hereditary gynecological cancer & Genetic testing

There are two major conditions responsible for hereditary gynecological cancers.

1. **Hereditary breast and ovarian cancer (HBOC):** HBOC is an inherited genetic condition. This means that the cancer risk is carried from generation to generation in a family. There are 2 genes found with persons who have HBOC: BRCA1 and BRCA2. BRCA stands for Breast Cancer. A genetic change (“mutation”) in either BRCA1 or BRCA2 can lead to an increased lifetime risk of developing breast and ovarian cancers.
2. **Lynch syndrome/ Hereditary Non-polyposis Colorectal Cancer syndrome (HNPCC):** This is also an inherited genetic condition. The lifetime risk of endometrial and colorectal cancer in Lynch syndrome is around 50-60%. Persons with Lynch syndrome are also at risk for gastric, ovarian, small bowel and liver cancer. Lifetime risk for ovarian cancer in person with Lynch syndrome is around 10%..

What is genetic testing?

Genetic testing is done with aim to find out if you have certain abnormal genes that predispose you to certain type of cancers. “Hereditary” means related to genes that can be passed down from parent to child.

What are the benefits of genetic testing?

If you have history of cancer or cancer in family members, then should inform to doctor or nurse. This information might prompt your doctor to do genetic counseling or testing. Identification of genetic mutation or inherited predisposition to developing cancer can help you and your physician to make informed decision for cancer screening, preventive strategies and counseling of other family members. These interventions can be lifesaving.

Should I have genetic testing?

The answer to this question is not the same for everyone. Doctors might recommend BRCA1/2 testing or Lynch syndrome testing (MLH1, MSH2, MSH6, PMS2) depending on your personal history, family history and details of your ancestry.

What should I do before I get tested?

Before you get tested, first understand benefit and risk of genetic testing. You should have information about:

- What information the results of testing could provide for you and your family
- Your risk of cancer and your chances of testing positive
- Approximate cost for testing

What if I test positive for a genetic variant?

If you test positive, do not panic. Ask your doctor and your genetic counselor what your results mean for you. If result suggest that you carry a variant that might increase your risk of cancer then it will be difficult to handle. But there are other options and ways to lower the chances cancer or to catch it early.

If you test positive then inform your family about the results. It affects their health as well as yours.

How can I lower the chances that I will get cancer if I test positive?

There are different strategies which your doctor will suggest you to lower the chance to get cancer or to detect it early.

- Screening for endometrial (uterine) cancer or Ovarian cancer.
- Have your Uterus, breasts and ovaries removed according to physician recommendation for your hereditary condition.
- Take medicines that help to decrease your chance of getting cancer.