

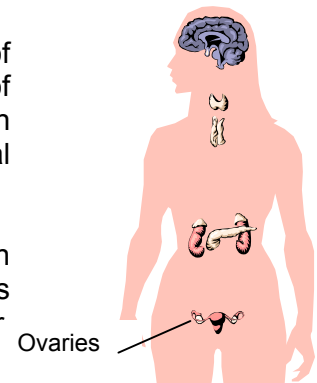
Hereditary Ovarian Cancer

What is Hereditary Ovarian Cancer?

Hereditary ovarian cancer is cancer of the ovaries caused by an altered gene that is passed on in a family.

The majority of ovarian cancer occurs in women with no family history of ovarian cancer (i.e., their cancer is considered sporadic). Only about 10% of ovarian cancer cases are thought to be hereditary. Hereditary ovarian cancer in families usually occurs at a younger age than in the general population.

Today, researchers know that hereditary ovarian cancer is associated with mutations (permanent alterations or changes) in specific genes. In families with hereditary ovarian cancer, each child of a parent with an ovarian cancer gene mutation has a 50% chance of inheriting the mutated gene. A woman who carries an altered gene has a much higher risk for developing ovarian cancer than women in the general population.



The average woman has about a 1% to 2% chance of developing ovarian cancer during her lifetime. Several hereditary syndromes are known to increase the risk for ovarian cancer. Hereditary Breast-Ovarian Cancer Syndrome is associated with mutations in the BRCA1 and BRCA2 genes. Women who carry a mutation in the BRCA1 or BRCA2 gene have a lifetime ovarian cancer risk of 10% to 60%, depending upon the gene or mutation involved. There is also as high as an 85% risk for breast cancer with this syndrome.

Hereditary Non-Polyposis Colorectal Cancer is a colorectal cancer syndrome that is also associated with increased risk for ovarian cancer. The lifetime risk for ovarian cancer is 10%. This syndrome also increases the lifetime risk for uterine cancer to 40% and for colorectal cancer to 80%.

Look for These Clues

Family history is an important risk factor for ovarian cancer.

When reviewing your family history, it is important to consider both your father's and your mother's side of the family since an altered gene can be inherited from either parent. Gather information on all types of cancer because other cancers can be associated with hereditary ovarian cancer. Certain "red flags" may suggest a higher risk for hereditary ovarian cancer. These include:



- Two or more relatives who have had ovarian cancer
- A family history of breast or ovarian or colon cancer in several relatives
- Breast and ovarian cancer in the same person
- A relative with a breast cancer diagnosis under the age of 50
- Ashkenazi Jewish ancestry (Eastern European/Russian descent) with a family history of breast or ovarian cancer
- A relative who carries a mutation in the BRCA1 or BRCA2 gene or any of the HNPCC genes

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Mid Atlantic Cancer Genetics Network

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What Can I Do?

Talk with your health care provider about options for prevention, screening, genetic counseling, and genetic testing.

If you have a family history of ovarian cancer, your physician may recommend the following screening examinations:

- Yearly pelvic exams
- Blood tests for CA 125 levels
- Transvaginal ultrasound of the ovaries

Studies are underway to determine the effectiveness of these screening methods for the early detection of ovarian cancer in high-risk families. Certain medical and/or surgical options may reduce ovarian cancer risk. Talk with your health care provider to determine if these are right for you.

Genetic testing and genetic counseling for several of the syndromes reviewed above are currently available. Genetic counselors interpret information about genetic diseases and disorders, analyze inheritance patterns and risks of occurrence, identify high-risk family members, and review available options for prevention, screening, genetic testing, and treatment. For more information about hereditary ovarian cancer or for a referral, please call the **Mid-Atlantic Cancer Genetics Network** toll free at 1-877-880-6188 or visit our Web site at <http://www.MACGN.org>

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