

Ovarian Cancer - Risk Factors and Prevention [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 05/2013

ON THIS PAGE: You will find out more about what factors increase the chance of this type of cancer. To see other pages, use the menu on the side of your screen.

A risk factor is anything that increases a person's chance of developing cancer. Although risk factors often influence the development of cancer, most do not directly cause cancer. Some people with several risk factors never develop cancer, while others with no known risk factors do. However, knowing your risk factors and talking about them with your doctor may help you make more informed lifestyle and health care choices.

The following factors may raise a woman's risk of developing ovarian cancer:

Age. A woman's risk of developing ovarian cancer increases with age. Women of all ages have a risk of ovarian cancer, but women over 50 are more likely to develop ovarian cancer. Sixty-eight percent (68%) of women with ovarian cancer are older than 55, and 32% are younger than 55.

Family history. Women with a first-degree relative (mother, daughter, or sister) with ovarian cancer have about a three times higher risk of developing the disease. This risk increases when two or more first-degree relatives have been diagnosed with ovarian cancer. If you are concerned ovarian cancer may run in your family, it is important to get an accurate family history and tell your doctor about what you discover. By understanding your family history, you and your doctor can take steps to reduce your risk and be proactive about your health (see below).

Genetics. About 10% to 15% of ovarian cancers occur because a genetic mutation (change) has been passed down within a family. A mutation in the *BRCA1* or *BRCA2* gene is associated with an increased risk of ovarian cancer; there is also an increased risk of [fallopian tube cancer](#) [3] and primary peritoneal (the membrane lining the abdomen) cancer, which are similar to ovarian cancer. Read more about the *BRCA1* and *BRCA2* genes and [hereditary breast and ovarian cancer](#) [4].

There are several other genetic conditions linked to an increased risk of ovarian cancer. Some of the most common include:

- [Lynch syndrome](#) [5]. Lynch syndrome, also known as hereditary non-polyposis colorectal

cancer (HNPCC), increases a woman's risk of ovarian and uterine cancer [6]. It is caused by mutations in several different genes. Lynch syndrome also increases the risk of colorectal cancer [7], as well as cancer of the stomach [8], small intestine [9], liver [10], bile duct [11], urinary tract [12], brain and central nervous system [13], and possibly breast [14].

- Peutz-Jeghers syndrome (PJS) [15]. PJS is caused by a specific genetic mutation and is associated with multiple polyps in the digestive tract that become noncancerous tumors and increased pigmentation (dark spots on the skin) on the face and hands. In addition to an increased risk of ovarian cancer, PJS also raises risk of breast [14], uterine [6], and lung [16] cancer.
- Nevoid basal cell carcinoma syndrome (NBCCS) [17]. Women with NBCCS, also called Gorlin syndrome, have an increased risk of developing fibromas (benign fibrous tumors) of the ovaries. There is a small risk that these fibromas could develop into a type of ovarian cancer called fibrosarcoma. People with NBCCS often have multiple basal cell carcinomas [18] and jaw cysts and may develop medulloblastoma [19] (a type of brain tumor) in childhood.

Women with Li-Fraumeni syndrome [20] and ataxia-telangiectasia [21] may also have a slightly increased risk of developing ovarian cancer.

Only genetic testing [22] can determine whether a woman has a genetic mutation. Most experts strongly recommend that women considering genetic testing first talk with a genetic counselor [23] (an expert trained to explain the risks and benefits of genetic testing).

Breast cancer. Having a diagnosis of breast cancer increases the risk for ovarian cancer, even when the *BRCA* genetic mutation test is negative (see above).

Ethnicity. Women of North American, Northern European, or Ashkenazi Jewish heritage have an increased risk of ovarian cancer.

Reproductive history. Women who have never had children, have unexplained infertility (the inability to bear children), have not taken birth control pills, or had their first child after the age of 30 have an increased risk of ovarian cancer. Also, women who started menstruation before age 12 and/or go through menopause later in life have an increased risk of ovarian cancer.

Hormones. Women who have taken estrogen-only hormone replacement therapy (HRT) after menopause have a higher risk of ovarian cancer.

Obesity. Recent studies have shown that women who were obese in early adulthood are 50% more likely to develop ovarian cancer. Women who are obese are also more likely to die from the disease.

Behavioral and social factors. Homosexual or bisexual women may have a higher risk of ovarian cancer than heterosexual women. This may be because lesbian women may be less likely to give birth, take oral contraceptives, or receive preventive screenings for fear of discrimination or insensitivity. Female-to-male transgendered and transsexual people may have a higher risk of ovarian cancer because of receiving hormones.

Endometriosis. This is when the inside lining of a woman's uterus grows outside of the uterus, affecting other nearby organs. This condition can cause several problems, but effective treatment

is available. Researchers are continuing to study whether endometriosis is a risk factor for ovarian cancer.

Prevention

Research continues to look into what factors cause this type of cancer and what people can do to lower their personal risk. There is no proven way to completely prevent this disease, but there may be steps you can take to lower your cancer risk. Talk with your doctor if you have concerns about your personal risk of developing this type of cancer.

Research has shown that certain factors may reduce a woman's risk of developing ovarian cancer:

- Taking birth control pills. Women who took oral contraceptives for three or more years are 30% to 50% less likely to develop ovarian cancer.
- Breastfeeding
- Pregnancy

Women who have had a hysterectomy (the removal of the uterus and, sometimes, the cervix) or a tubal ligation (having the fallopian tubes tied surgically to prevent pregnancy) may have a lower risk of developing ovarian cancer.

Some women with a strong family history of ovarian cancer may consider a risk-reducing salpingo-oophorectomy. This is a preventive surgery to remove the fallopian tubes and ovaries, even if cancer is not diagnosed. This operation will significantly reduce, but not eliminate, the risk that a woman will develop ovarian or fallopian tube cancer [3]. Women considering this surgery should talk with their doctor and a genetic counselor [23] to fully understand the risks and side effects of this surgery compared with the risk of developing ovarian cancer.

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Links:

- [1] <http://www.cancer.net/cancer-types/ovarian-cancer/risk-factors-and-prevention>
- [2] <http://www.cancer.net/about-us>
- [3] <http://www.cancer.net/node/18838>
- [4] <http://www.cancer.net/node/18922>
- [5] <http://www.cancer.net/node/19223>
- [6] <http://www.cancer.net/node/19308>
- [7] <http://www.cancer.net/node/18701>
- [8] <http://www.cancer.net/node/19645>
- [9] <http://www.cancer.net/node/19632>
- [10] <http://www.cancer.net/node/19134>
- [11] <http://www.cancer.net/node/18505>
- [12] <http://www.cancer.net/node/18520>
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- [14] <http://www.cancer.net/node/18618>
- [15] <http://www.cancer.net/node/19535>
- [16] <http://www.cancer.net/node/19148>
- [17] <http://www.cancer.net/node/19452>

- [18] <http://www.cancer.net/node/19618>
- [19] <http://www.cancer.net/node/19237>
- [20] <http://www.cancer.net/node/19133>
- [21] <http://www.cancer.net/node/18502>
- [22] <http://www.cancer.net/node/24895>
- [23] <http://www.cancer.net/node/24907>