



Ovarian Cancer

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What is cancer?

Normal cells in the body grow, divide, and are replaced on a routine basis. Sometimes, cells divide abnormally and begin to grow out of control. These cells may form growths or tumors.

Tumors can be benign (not cancer) or malignant (cancer). Benign tumors do not spread to other body tissues. Malignant tumors can invade and destroy nearby healthy tissues and organs. Cancer cells also can spread to other parts of the body and form new cancerous areas.

What is ovarian cancer?

Ovarian cancer is cancer that affects one or both **ovaries**. Ovarian cancer is not common. But because ovarian cancer often goes undetected until it is in an advanced stage, it is the number one cause of deaths from gynecologic cancer in the United States.

What are the types of ovarian cancer?

Ovarian cancer can develop on the surface of the ovary or from tissues inside the ovary. There are three main types. The type that develops on the surface of the ovary, epithelial ovarian cancer, is the most common type. About 90% of cases of ovarian cancer involve epithelial tumors. This FAQ discusses epithelial ovarian cancer.

What are the risk factors for ovarian cancer?

Certain risk factors are associated with epithelial ovarian cancer. The following factors have been shown to increase a woman's risk of getting this type of cancer:

- Age older than 55 years
- Family history of breast cancer, ovarian cancer, colon cancer, or endometrial cancer (cancer of the lining of the **uterus**)
- Personal history of breast cancer
- **Mutations in *BRCA1* and *BRCA2* genes**
- Never having had children

- Infertility
- **Endometriosis**
- **Lynch Syndrome**

What screening tests are available for ovarian cancer?

A screening test is a test that is done when no symptoms are present. Examples of screening tests are **colonoscopy** for colorectal cancer and the **Pap test** for cervical cancer. Currently, there is no screening test for ovarian cancer. You should be alert to any changes in your body and discuss them with your **obstetrician–gynecologist (ob-gyn)** or health care professional. The earlier that ovarian cancer is diagnosed, the more likely that treatment will be successful.

What are the symptoms of ovarian cancer?

If you have any of the following symptoms, especially if you have them for more than 12 days per month, contact your ob-gyn or other health care professional:

- Bloating or an increase in abdominal size
- Pelvic or abdominal pain
- Difficulty eating or feeling full quickly
- Urinary symptoms (frequency and urgency)

Other symptoms can include vaginal bleeding, especially after **menopause**, and a change in bowel habits. Having these symptoms does not mean that you have ovarian cancer, but it is a good idea to find out what is causing them.

How is ovarian cancer diagnosed?

If you have frequent or persistent symptoms of ovarian cancer, you may have a physical exam, including a **pelvic exam**. An imaging test of the ovaries, such as a **transvaginal ultrasound exam**, may be done. If a growth is found on an ovary, your ob-gyn may order a blood test to measure your **CA 125** level. CA 125 sometimes is increased in women with ovarian cancer. Results of these tests are used to assess the likelihood that the growth is cancer. Test results also will guide the next steps in evaluation.

How is ovarian cancer treated?

If a woman is thought to have ovarian cancer, surgery usually is recommended to remove the uterus, ovaries, and **fallopian tubes**. **Lymph nodes** and tissues in the pelvis and abdomen are checked for cancer and may be removed as well. In some cases, only the ovary with cancer may be removed. Chemotherapy after surgery is recommended for most cases of ovarian cancer. **Chemotherapy** is the use of drugs that kill cancer cells. In some cases, chemotherapy may be recommended before surgery.

What type of follow-up is needed after treatment?

Women treated for ovarian cancer need to have regular checkups to make certain that the cancer has not come back. A checkup after cancer treatment usually includes a review of symptoms and a physical exam. The checkup also may include a CA 125 test. Imaging tests are not routinely done but may be recommended. These may include ultrasound, chest X-ray, **magnetic resonance imaging (MRI)**, or **computed tomography (CT)**.

How can I reduce my risk of ovarian cancer?

Combined hormonal birth control pills (those that contain estrogen and **progestin**) may reduce the risk of ovarian cancer. The longer a woman takes the pill, the more the risk is reduced—for every 5 years on the pill, a woman reduces her risk by about 20%. This benefit needs to be balanced against the risks of using the pill. The pill is safe for most women, but it is associated with a small increased risk of **deep vein thrombosis (DVT)**, heart attack, and stroke.

Current theories suggest that some types of ovarian cancer may start in the fallopian tubes. If you need to have your uterus removed or you have chosen sterilization as a permanent method of birth control, you may want to ask your ob-gyn or other health care professional about having your fallopian tubes removed. This operation is called a **salpingectomy**. In this procedure, only the fallopian tubes are removed. The ovaries are left in place. A salpingectomy may help reduce the risk of future ovarian cancer.

What should I know if I am at high risk of ovarian cancer?

For women at high risk of ovarian cancer, such as women with **BRCA1** or **BRCA2** mutations, periodic tests to check for ovarian cancer may be recommended. These tests may include transvaginal ultrasound exam to look for changes in the ovaries and a CA 125 test.

Risk-reducing salpingo-oophorectomy also is an option. This is the removal of the fallopian tubes and the ovaries in a woman who does not have cancer. It is recommended for women with **BRCA1** or **BRCA2** mutations by age 40 years or when childbearing is complete. It also may be recommended for women with Lynch syndrome. This operation reduces the risk of ovarian cancer.

Glossary

BRCA1 and BRCA2: Genes that function in the control of cell growth. Changes in these genes have been linked to an increased risk of breast cancer and ovarian cancer.

CA 125: A substance in the blood that may increase in the presence of some cancerous tumors.

Chemotherapy: Treatment of cancer with drugs.

Colonoscopy: An exam of the entire colon using a small, lighted instrument.

Computed Tomography (CT): A type of X-ray procedure that shows internal organs and structures in cross section.

Deep Vein Thrombosis (DVT): A condition in which a blood clot forms in veins in the leg or other areas of the body.

Endometriosis: A condition in which tissue that lines the uterus is found outside of the uterus, usually on the ovaries, fallopian tubes, and other pelvic structures.

Fallopian Tubes: Tubes through which an egg travels from the ovary to the uterus.

Genes: Segments of DNA that contain instructions for the development of a person's physical traits and control of processes in the body. They are the basic units of heredity and can be passed down from parent to child.

Lymph Nodes: Small clusters of special tissue located throughout the body that filter lymph, a nearly colorless liquid that bathes body cells. Lymph nodes are connected to each other by lymph vessels. Together, these structures make up the lymphatic system.

Lynch Syndrome: A genetic condition that increases a person's risk of several types of cancer, including colon cancer, ovarian cancer, and endometrial cancer.

Magnetic Resonance Imaging (MRI): A method of viewing internal organs and structures by using a strong magnetic field and sound waves.

Menopause: The time in a woman's life when menstruation stops; defined as the absence of menstrual periods for 1 year.

Mutations: Permanent changes in a gene that can be passed on from parent to child.

Obstetrician–Gynecologist (Ob-Gyn): A physician with special skills, training, and education in women's health.

Ovarian Cancer: Cancer that affects one or both of the ovaries.

Ovaries: The paired organs in the female reproductive system that contain the eggs released at ovulation and that produce hormones.

Pap Test: A test in which cells are taken from the cervix and vagina and examined under a microscope.

Pelvic Exam: A physical examination of a woman's reproductive organs.

Progestin: A synthetic form of progesterone that is similar to the hormone produced naturally by the body.

Risk-Reducing Salpingo-oophorectomy: Surgical removal of healthy fallopian tubes and ovaries.

Salpingectomy: Removal of one or both of the fallopian tubes.

Transvaginal Ultrasound: A type of ultrasound in which a device specially designed to be placed in the vagina is used.

Uterus: A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.

If you have further questions, contact your obstetrician–gynecologist.

FAQ096: Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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