

# Treatment Methods for Ovarian Cancer

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## Editorial Note

The ovaries are a pair of organs in the female reproductive system. They are in the pelvis, one on each side of the uterus. Each ovary is about the size and shape of an almond. The ovaries make eggs and female hormones. The organs in the female reproductive system include the uterus, ovaries, fallopian tubes, cervix, and vagina. The uterus has a muscular outer layer called the myometrium and an inner lining called the endometrium.

Ovarian cancer occurs when cells in one or both ovaries become abnormal, grow out of control and form a lump called a tumor. Ovarian cancer treatment options include surgery, chemotherapy or targeted therapy. Surgery involves removing the affected ovary or the ovaries, fallopian tubes and uterus and performing a biopsy to evaluate cancer cells. There are different treatment methods for ovarian cancer as mentioned below.

### Surgery

Surgery is the mainstay of treatment for many people with ovarian cancer. It can vary both by the type of ovarian cancer and the stage. Ovaries are important part of the female reproductive system. They are responsible for producing the hormones progesterone and estrogen, as well as the storehouse of eggs for fertilization. A woman has two ovaries in the body. A situation may arise in which non-invasive treatments cannot recover the disturbances of the reproductive system.

Oophorectomy, also known as ovariectomy is a surgical procedure in which one or both of a woman's ovaries are removed. During cytoreductive surgery, the surgeon aims to remove as much of the cancer from the patient's abdomen as possible. This surgery is especially necessary for patients whose cancer has spread throughout the abdomen and may improve patient survival rates. However, in some patients with advanced ovarian cancer it may not be possible to remove all the cancer upfront. This may be because removing the cancer might cause so much damage to the body that some people will never recover from that damage.

### Chemotherapy

Chemotherapy is a type of systemic treatment. These powerful drugs travel throughout your body to seek and destroy cancer cells. It is used before surgery to shrink tumors or after surgery to kill any remaining cancer cells. These drugs can be given intravenously or orally. They can also be injected directly into your abdomen.

Epithelial ovarian cancer starts in cells on the outer lining of your

ovaries. They are given three to six times, usually three to four weeks apart. The standard drug combination is cisplatin or carboplatin plus paclitaxel or docetaxel. Sometimes ovarian cancer starts in your germ cells. These are the cells that eventually form eggs. The drug combination used for germ cell tumors is cisplatin, etoposide, and bleomycin. Ovarian cancer can also start in stromal cells. These are the cells that release hormones and connect ovarian tissue. This drug combination is likely to be the same used for germ cell tumors.

### Radiation Therapy

Radioactive substances can also be attached to proteins called monoclonal antibodies, which seek out cancer cells and attach to them. The radioactive material attached to the antibody concentrates at the cancer cells and destroys them. The most common form of radiation therapy used in cancer treatment is external beam radiation and internal radiation therapy.

### Hormone Therapy

Hormone therapy is conducted mostly by means of medication. The medication will depend on several factors such as your cancer's stage of development, what other treatments you have received and if you are a woman, whether or not you have undergone menopause. There are three primary contexts in which hormone therapy is used as neo-adjuvant therapy, adjuvant therapy, and systemic therapy. Neo-adjuvant treatments focus on shrinking tumors prior to radiation therapy or surgical excision. Adjuvant treatment occurs after surgery or radiation, to decrease the possibility of cancer coming back. Systemic therapy takes place when cancer has metastasized, that is spread to other locations in the body.

### Targeted Therapies

Targeted therapies are cancer fighting drugs that interfere with specific molecules or parts of cancer cells that help the cancer grow and spread. Targeted therapy differs from traditional chemotherapy, which is less specific and acts on all fast growing normal and cancer cells. Because targeted therapy attacks cancer cells and not normal, healthy cells, it has fewer side effects. Targeted therapies can attack the cancer cells in different ways. Targeted therapy can affect the blood supply to tumors, which causes the cancer cells to starve and die.

People with cancer need support and information, no matter what stage of illness they may be in. Knowing all of your options and finding the resources you need help you make informed decisions about your care. Whether you are thinking about treatment, getting treatment, or not being treated at all, you can still get supportive care to help with pain or other symptoms. Communicating with your doctors is important so you understand your diagnosis, what treatment is recommended, and ways to maintain or improve your quality of life

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