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# Medical Update on Ovarian Cancer

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- New treatments
- Finding a specialist
- Clinical trials
- Managing side effects



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### Contacting CancerCare

#### National Office

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[info@cancercares.org](mailto:info@cancercares.org)

1-800-813-HOPE (4673)  
[www.cancercares.org](http://www.cancercares.org)

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# As diagnosis and treatments continue to improve, more women with ovarian cancer are living longer.

**E**ach year, nearly 22,000 women in the United States are diagnosed with ovarian cancer. The disease affects the ovaries, which are part of a woman’s reproductive system. Thanks to a number of new treatments, more women with ovarian cancer are living longer after diagnosis.

Most women with ovarian cancer experience symptoms that are subtle. Until the cancer is diagnosed and doctors determine its extent, there is no way to tell the difference between symptoms caused by early-stage disease confined to the ovaries and those caused by late-stage disease, in which the cancer has spread to other parts of the body.

## Stages of Ovarian Cancer

To plan the best treatment for you, your doctor needs to know the stage of your cancer—that is, whether and how much it has spread to nearby tissues and organs. During surgery, which is usually the first step when ovarian cancer is suspected, the surgeon takes many samples of the tumor, as well as tissues from the pelvis and abdomen. These tissues are then put under a microscope to look for cancer. Your doctor may also order other tests, such as a chest x-ray or CT scan, which takes x-rays from many different angles; MRI; or PET scan. These tests help find out whether the cancer has spread from the ovaries to other organs. The CT, MRI, or PET scan can also offer a “baseline” snapshot for later comparison, should tumors return.

Based on the results of surgery and other tests, the cancer is assigned a number from 1 to 4:

- **Stage 1:** The cancer is found only in the ovary (or ovaries).
- **Stage 2:** The cancer has spread into other parts of the pelvis, such as the bladder or colon.
- **Stage 3:** The cancer has spread beyond the pelvis, into the lining of the abdomen or the lymph nodes, which are the small “filtering stations” that remove waste and fluids from tissues and organs and help fight infections in the body.
- **Stage 4:** The cancer has spread into more distant organs, such as the liver or lungs.

## Treatments for Ovarian Cancer

### SURGERY

For some women, surgery may involve removing a large amount of tissue, including the ovaries and uterus. It’s important for women to see a gynecologic oncologist, a doctor who has special training in the diagnosis and treatment of ovarian cancer. Studies have shown that gynecologic oncologists are more likely to perform state-of-the-art surgery for women with ovarian cancer and more likely to plan the most comprehensive follow-up treatment.

The surgeons will try to remove all of the tumor that is visible. If no visible tumor remains, or if the size of the remaining tumor is less than one centimeter (less than half an inch), that is called “optimal debulking.” If more than one centimeter of tumor is left behind, that is called “suboptimal debulking.” Some decisions about future treatment are based on whether the surgery is optimal or suboptimal, so it’s important information for you to know.

Before surgery, doctors may check a woman’s levels of CA-125, which is a protein found in the blood. Women with ovarian cancer often have high levels of this protein. But in the early

# Finding a Specialist

Ideally, women with ovarian cancer should work with a gynecologic oncologist who specializes in treating cancer of the reproductive organs, including the ovaries. Many of these doctors are found at comprehensive cancer centers (designated by the National Cancer Institute) and medical schools. There are 61 such centers in the United States: every state has at least one.



If the cancer center in your state is too far from your home for regular visits, consider consulting with experts there who can work with you and your doctor to develop a treatment plan. You can also contact the Women's Cancer Network for a list of Board-certified doctors who belong to the Society of Gynecologic Oncologists. See the list of resources on page 15 for more information.

stages of ovarian cancer, CA-125 levels may not be elevated. So it's not always the most reliable indicator that a tumor is present. Still, doctors use CA-125 as a gauge. After surgery, CA-125 levels are tested. CA-125 levels that drop after surgery and stay low suggest that ovarian cancer is responding to treatment.

Surgery may also be an option when cancer returns. But it depends on several factors such as the extent of the tumor, the length of time since the first surgery and treatment, and the woman's general health.

## **CHEMOTHERAPY**

After debulking surgery, almost all women are treated with intravenous (IV) chemotherapy, whether their surgery was optimal or suboptimal. An intravenous treatment is delivered into a vein. Usually, this chemotherapy combines paclitaxel

(Taxol and others) and carboplatin (Paraplatin and others). These two medications are highly effective at slowing or stopping the growth of ovarian cancer.

Chemotherapy may vary, depending on the amount of tumor still remaining in the body after surgery. Some other chemotherapies used for treating ovarian cancer include:

- Cisplatin (Platinol)
- Docetaxel (Taxotere)
- Doxorubicin (Doxil)
- Epirubicin (Ellence)
- Topotecan (Hycamtin)

Other medications may be available through clinical trials.

In addition to receiving IV chemotherapy, women whose debulking surgery was optimal may also be offered intraperitoneal (IP) chemotherapy. This treatment delivers a concentrated dose of chemotherapy through a tube into the abdomen, directly to the cancer cells. Recently, several clinical trials have shown that IP chemotherapy benefits these women.

Most women who have had debulking surgery followed by six “cycles,” or rounds, of chemotherapy go into complete remission. This is when the disease seems to have disappeared from the body and no test currently available can detect any lingering cancer. For women in complete remission, treatment may be stopped. Or, it may be continued as “consolidation therapy,” which is treatment given after cancer has disappeared following the initial therapy. Consolidation therapy is used to kill any cancer cells left in the body.

Some studies have shown that consolidation therapy with paclitaxel and other types of chemotherapy can lengthen the amount of time a woman lives without her cancer coming back. It is important for women with ovarian cancer to talk with their doctors about the potential benefits of consolidation therapy.

Women whose ovarian cancer does not go into remission or whose cancer returns less than six months after the first full course of chemotherapy are usually treated with other drugs. These medications include pegylated liposomal doxorubicin (PLD), topotecan, gemcitabine (Gemzar), or other forms of taxanes (weekly paclitaxel or docetaxel). If ovarian cancer returns *more* than six months after the first full course of chemotherapy, a woman may be treated with carboplatin in combination with another drug such as paclitaxel, gemcitabine, or PLD.

### TREATMENTS ON THE HORIZON

There are many reasons to be optimistic about future treatments for ovarian cancer. Currently, there are more drugs being tested in clinical trials than ever before. In fact, some 40 to 50 new drugs are under development for ovarian cancer, and many of them show promise. The following drugs appear to be useful in treating ovarian cancer and may, in the future, be approved by the U.S. Food and Drug Administration (FDA):



■ **Canfosfamide** belongs to a new class of chemotherapy.

Early results suggest that this drug increases the effectiveness of standard chemotherapy by preventing the cancer cell from becoming resistant to treatment. Researchers are now studying the results from a large clinical trial of women who have ovarian tumors that are resistant to platinum-based treatment.

■ **Bevacizumab (Avastin)** belongs to a class of medications called targeted treatments. These drugs treat cell mechanisms that supply blood to tumors and promote their growth. Rather than killing both healthy and unhealthy cells,

as chemotherapy does, targeted treatments attack cancer cells primarily. The FDA has already approved bevacizumab for use in combination with other drugs for a number of cancers, including metastatic breast and colon cancers. A number of clinical trials are under way to test bevacizumab alone and in combination with other drugs for women with ovarian cancer.

- **Farletuzumab (MORAb-003)** is also a type of targeted treatment that focuses on a specific cell mechanism. In at least 90 percent of ovarian cancers, the tumor cells have an abundance of receptors, or doorways, on their surface that allow a substance called FRA to enter. When FRA enters the cells, it promotes tumor growth. Farletuzumab blocks these doorways and prevents FRA from coming into the cell. This new medication is being studied alone and in combination with chemotherapy for ovarian cancer.

## Managing Side Effects

Ovarian cancer—and the drugs used to treat it—can cause a wide range of side effects that can affect your quality of life and activities. Fortunately, many of them are treatable. Talk with your doctor if you experience any of the following:

- **Neutropenia** Chemotherapy can lower the number of infection-fighting white blood cells in the body, the condition that doctors call “neutropenia.” Of special concern for cancer patients is their level of neutrophils, the most abundant of the three types of white blood cells. Neutrophils can inactivate or destroy bacteria, a common source of infection for patients receiving chemotherapy. If you are feeling unwell in any way after receiving chemotherapy, it’s vital to take your temperature. If your temperature rises to 100.5°F (38.1°C) or above, call your doctor or nurse immediately. They may want to check your neutrophil count and may prescribe antibiotics or other drugs to boost the number of white blood cells.

- **Mouth sores (mucositis)** Sores inside the mouth and on the mucous lining of the throat and digestive tract can result from radiation treatments and from some types of chemotherapy. Mucositis can be a serious problem because it can cause pain and infections, making it difficult to eat, drink, and swallow. Notify your doctor or nurse if you experience this side effect of cancer treatment. They may recommend a mouthwash or other medications to treat the pain and decrease the risk of infection from mucositis.
- **Fatigue** One of the most common causes of chemotherapy-related fatigue is a low red blood cell count, what doctors call “anemia.” Red blood cells carry oxygen throughout your body and give you energy. Chemotherapy or general cancer pain can also disrupt your eating or sleeping habits, both of which can result in fatigue. In order to treat your fatigue, your doctor needs to know the cause. So it’s important for you to discuss this symptom with your health care team.
- **Chemobrain** Many women undergoing chemotherapy treatments report changes in their memory and thinking. Tell your doctor if you are having difficulty with memory, thinking, word retrieval, or multitasking.
- **Pain** A variety of pain-relieving drugs are available to help people with cancer. Your pain management plan may also include physical therapy, relaxation exercises, meditation, biofeedback, or acupuncture.
- **Nausea and vomiting** There are many effective treatments to help you cope with this side effect. Your doctor can give you medications that will help prevent the problem from occurring. Talk to your doctor about which type of these drugs is best for you.

- **Nerve damage** Some people taking chemotherapy experience pain, numbness, or tingling in their hands and feet, what doctors call “peripheral neuropathy.” It’s important to tell your doctor as soon as possible if you experience these types of side effects. He or she may want to adjust some of your medicines or chemotherapy.
- **Sexual functioning** Ovarian cancer treatments can lead to early menopause, changes in sex drive (libido), and altered body image. As part of your treatment discussions with your doctor, ask about the issues that are of concern to you and how your surgery or medications may affect you. Concerns about fertility should be discussed before you start treatment for ovarian cancer. Your doctor can help you seek fertility counseling and planning.

Keeping a daily diary of side effects, symptoms, and questions to ask your doctor will help you organize your thoughts and concerns, and get the information you need.

*Whenever you develop a new symptom or side effect, it’s important that you tell the health care team that has been treating your cancer, not just your primary care physician. Your health care team can correctly diagnose what is causing the symptom and help you manage it.*

Because ovarian cancer can return after treatment, many women with this disease find themselves coping with it over the long term. That’s why it’s especially important to foster a good relationship with your entire health care team. You should also learn to recognize the symptoms of ovarian cancer recurrence.



## How CancerCare Helps

When you are being treated for ovarian cancer, you may have many concerns. It's perfectly normal to feel confused, nervous, or anxious. But the more you learn about what's involved and what to expect, the better you'll feel about your treatment.

Help is available to you as you consider your options.

Your most important support will likely come from your health care team, family members, and friends. But CancerCare offers these free resources as well:

**Counseling** Our oncology social workers can speak with you one-on-one to help you find ways to cope with the emotional and practical challenges of cancer. Counseling services are available in person or over the phone.



**Support Groups** Connect with other people who are in a similar situation in our free support groups led by professional oncology social workers.

**Connect Education Workshops** Leading experts in oncology provide up-to-date information in these free, one-hour workshops over the telephone. Listen in live to learn about cancer-related issues from the convenience of your home or office. Past workshops are also available as podcasts on our website and on telephone replay.

## Symptoms of Ovarian Cancer Recurrence

The following symptoms are more likely to occur in women whose ovarian cancer has come back:

- Bloating
- Pelvic or abdominal pain
- Difficulty eating or feeling full quickly
- Urinary symptoms (urgency or frequency)

There are also other, more general symptoms that women with ovarian cancer often report. But these symptoms can be found in women without the disease as well:

- Fatigue
- Indigestion
- Pain
- Uncomfortable or painful intercourse
- Constipation
- Vaginal bleeding

If you experience any of these symptoms after treatment, be sure to alert your health care team.

**Publications** Our free booklets and fact sheets offer up-to-date, easy-to-read information about the latest treatments, managing side effects, and coping with cancer.

**Financial Help** Our staff helps you manage financial concerns and provides referrals. Limited aid is also available to eligible individuals and families for cancer-related costs such as co-payments, transportation, and child care.

**Referrals to Resources** CancerCare can help you learn about other organizations in your community and nationwide that can assist you in finding information and help.

*To learn more about how we help, call **1-800-813-HOPE (4673)** or visit [www.cancercare.org](http://www.cancercare.org).*

# Frequently Asked Questions

**Q I've just finished chemotherapy for ovarian cancer. I have many symptoms of recurrence, but all my tests came back negative. How can this be?**

**A** There are several possible reasons why some women have persistent symptoms of recurrence despite normal scan results and normal blood tests. One is that the original tumor, or the treatments for it, caused scar tissue to form or some other physical problem that is causing symptoms (even though the cancer is gone). Changes in the lower digestive tract, which many women experience after surgery, could also cause symptoms.

It's also possible that a cancer recurrence won't show up on scans and blood tests. When women have a recurrence of their tumor, new tumors may not be big. Often, the cancer comes back in the form of very small tumors that may not appear on tests. Talk with your doctor about any symptoms. He or she may want to do additional testing.

**Q I was recently diagnosed with ovarian cancer, and I have large tumors in my abdominal cavity. Before the surgery, my oncologist wants me to have chemotherapy to shrink the tumors. Is this a common practice?**

**A** Chemotherapy delivered before surgery—known as neoadjuvant chemotherapy—is often recommended for women whose tumors are likely to be difficult to remove. It may also be recommended for women who may not be

able to physically withstand a long operation. Neoadjuvant chemotherapy is a reasonable option for some women. One important thing to note is that it's always best to consult a gynecologic oncologist who can confirm what the best option for you is—whether to have surgery first or chemotherapy first.

If you decide to undergo neoadjuvant chemotherapy, be sure to follow up with the surgeon who recommended it. Sometimes, women are told they don't need surgery after the chemotherapy, if the tumor shrank dramatically. But most women still benefit from at least one attempt to have a tumor removed surgically.

**Q Why do some treatments work for some women with ovarian cancer but not for others?**

**A** This is most likely due to differences in the genetic makeup of each woman's tumor. In recent years, scientists have learned that the tumors of people with the same type and stage of cancer can have different genetic characteristics that may affect how they respond to treatment. In some cases, having an understanding of a tumor's genetic makeup is helping doctors better select treatments that are more likely to work. The hope is that we will someday be able to identify all of the differences responsible for each tumor and then treat them more effectively.

**Q How effective is the OVA1 test in finding ovarian cancer?**

**A** The OVA1 test is *not* a screening test for ovarian cancer. Rather, it is a test to find out whether a mass on or near the ovaries is likely to be a tumor. If the mass appears to be cancer, then you can find the right specialist for further care and treatment.

**Q Why is it important for women with ovarian cancer to maintain their weight?**

**A** In addition to posing other health risks, weight gain can increase hormonal activity, which may promote cancer recurrence. Weight gain often takes place during and after treatments. There appear to be many possible reasons for weight gain during treatment. Some of the medications you take can increase your appetite, and fatigue may prevent you from exercising. Treatments can also slow your metabolism. But it's important to try to maintain your average body weight throughout your treatment and care. Looking and feeling your best help improve not only your health, but also your quality of life and sense of well-being.

A registered dietitian can help you plan a diet that you are able to tolerate and one that provides you with adequate nutrition. There are registered dietitians who specialize in nutrition for people living with cancer. Talk with your doctor about a referral to a registered dietitian.

# Resources

- **CancerCare**  
1-800-813-HOPE (4673)  
[www.cancer.org](http://www.cancer.org)
- **American Cancer Society**  
1-800-227-2345  
[www.cancer.org](http://www.cancer.org)
- **Cancer.Net**  
Patient information from the American Society of Clinical Oncology  
[www.cancer.net](http://www.cancer.net)
- **Gynecologic Cancer Foundation**  
Operates the Women's Cancer Network, which can help you find a Board-certified gynecologic oncologist  
1-800-444-4441  
[www.thegcf.org](http://www.thegcf.org)
- **L'Oreal Paris Ovarian Cancer Research Fund Hope Line**  
1-877-OVHOPE1 (1-877-684-6731)  
[www.ocrf.org](http://www.ocrf.org)
- **National Cancer Institute (NCI)**  
For general information and help finding an NCI-designated cancer center near you  
1-800-422-6237  
[www.cancer.gov](http://www.cancer.gov)
- **The National Coalition for Cancer Survivorship**  
1-877-622-7937  
[www.canceradvocacy.org](http://www.canceradvocacy.org)

■ **National Ovarian Cancer Coalition**

1-888-682-7426

[www.ovarian.org](http://www.ovarian.org)

■ **Ovarian Cancer National Alliance**

1-866-399-6292

[www.ovariancancer.org](http://www.ovariancancer.org)

**TO FIND OUT ABOUT CLINICAL TRIALS:**

■ **Clinicaltrials.gov**

[www.clinicaltrials.gov](http://www.clinicaltrials.gov)

■ **Coalition of Cancer Cooperative Groups**

[www.CancerTrialsHelp.org](http://www.CancerTrialsHelp.org)



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The information presented in this patient booklet is provided for your general information only. It is not intended as medical advice and should not be relied upon as a substitute for consultations with qualified health professionals who are aware of your specific situation. We encourage you to take information and questions back to your individual health care provider as a way of creating a dialogue and partnership about your cancer and your treatment.

All people depicted in the photographs in this booklet are models and are used for illustrative purposes only.

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makes all the difference



With CancerCare,  
the difference comes from:

- Professional oncology social workers
- Free counseling for you and your loved ones
- Education and practical help
- Up-to-date information

Our trusted team of professionally trained oncology social workers provides free counseling, education and practical help for you and your loved ones.



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**[www.cancer.org](http://www.cancer.org)**