National Comprehensive Cancer Network®

2026

NCCN Guidelines for Patients®

Cancer care recommendations from leading experts at the National Comprehensive Cancer Network® (NCCN®)

Ovarian Cancer



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NCCN Guidelines for Patients®

The essential guide for people facing cancer.

Based on care recommendations from leading cancer experts.

Explains high-quality cancer care provided at state-of-the-art cancer centers.

Reviewed and revised every year.

Did you know that top cancer centers across the United States work together to improve cancer care? This alliance of leading cancer centers is called the National Comprehensive Cancer Network® (NCCN®).

Because cancer care is always evolving, NCCN develops and frequently updates evidence-based cancer care recommendations used by health care providers worldwide. These recommendations are known as the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®).

The NCCN Guidelines for Patients plainly explain these expert recommendations, so you can talk with your care team about the best care for you.

These NCCN Guidelines for Patients are based on the NCCN Guidelines® for Ovarian Cancer, Version 4.2026 — April 10, 2026.

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The National Ovarian Cancer Coalition (NOCC) is an influential advocate for those experiencing ovarian cancer. NOCC is committed to providing tools and resources for patients and caregivers by offering virtual, evidence-based educational programing, peer-to-peer support groups, and direct support services using our regional model throughout the United States. NOCC's community-focused approach is at the heart of everything we do, from funding innovative research that will lead to improved quality of life outcomes to promoting advocacy in action through disease awareness and outreach events in communities like yours. For more information, please visit ovarian.org or call 888-OVARIAN.

Ovarian Cancer Research Alliance

Ovarian Cancer Research Alliance (OCRA) is committed to curing ovarian cancer, advocating for patients, and supporting survivors. As the largest ovarian cancer charity, OCRA has invested more than $140 million in research. Through our conference, webinars, and weekly educational programs, OCRA provides the most up-to-date information on diagnosis, treatment, and living with gynecologic cancers. Our personalized support programs offer emotional guidance, peer connections, practical resources, and care navigation for patients and caregivers, including one-on-one counseling, peer mentoring, and facilitated support series. OCRA builds community through advocacy, research, collaboration, and support. Learn more at ocrahope.org or call 212-268-1002.



The way forward starts here.

National Comprehensive Cancer Network® Foundation

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About ovarian cancer

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Most ovarian cancers actually start in the fallopian tubes, close to where the tube meets the ovary. This resource describes treatment for common and rare ovarian cancers.

What is ovarian cancer?

Ovarian cancer is a disease that starts when microscopic cells in the fallopian tubes or ovaries change in a way that makes them grow out of control.

The ovaries are a pair of glands that make eggs needed for sexual reproduction. Until menopause, the ovaries release hormones that affect breast growth, body shape, and the menstrual cycle (your period).

Each ovary is about the size and shape of a grape. One is on the left side of the uterus and the other is on the right. Each is surrounded by a long, thin tube called a fallopian tube. The uterus and at least 1 ovary and fallopian tube are needed for menstruation and pregnancy.

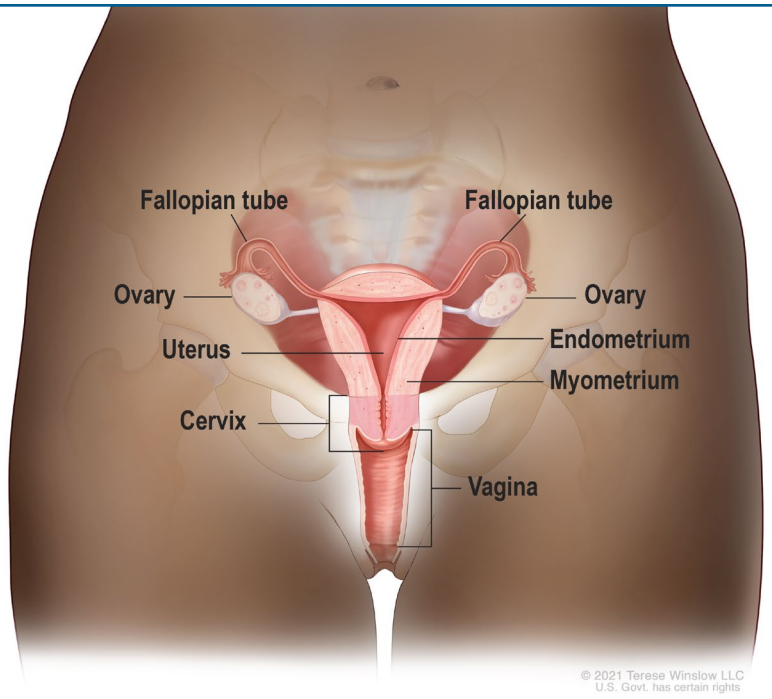
Because most ovarian cancers are found in the outer surface of the fallopian tubes (the epithelium), they are called epithelial ovarian cancers. The most common types of epithelial ovarian cancer are:

- High-grade serous ovarian cancer (HGSOC)
- High-grade endometrioid cancer

Rare types of ovarian cancer are called less common ovarian cancers (LCOCs). They can start in the epithelium, in tissues that support the ovaries, or in the reproductive (egg) cells of the ovary.

The ovaries

The ovaries are a pair of glands in the pelvis. Until menopause, they release hormones that affect breast growth, body shape, and the menstrual cycle (periods).



How is ovarian cancer treated?

When it can be performed safely, surgery to remove the uterus, fallopian tubes, and ovaries is often the first treatment for common types of ovarian cancer. Platinum-based chemotherapy is typically given after surgery to kill any remaining cancer cells. In select cases, surgery to preserve the uterus, 1 ovary, or both may be an option if the cancer hasn't spread outside the ovary.

Another approach for common types of ovarian cancer begins with chemotherapy to shrink the tumor, followed by surgery to remove the remaining cancer and the uterus, fallopian tubes, and ovaries. In this approach, chemotherapy is also given after surgery.

Less common ovarian cancers are often diagnosed during a surgery or procedure performed for a different reason. Receiving treatment as part of a clinical trial is strongly recommended, when possible. If a clinical trial isn't an option, treatment for these rare cancers is individualized and often involves chemotherapy.

Supportive care is available for everyone with ovarian cancer, whether you're receiving other treatment or not.

Primary peritoneal cancer

Primary peritoneal cancer forms in the tissue that lines the abdominal wall and covers the abdominal organs. The treatment information in this guide also applies to primary peritoneal cancer and fallopian tube cancer.

The treatment that you and your care team agree on should be detailed in a treatment plan, along with possible side effects.

Keep in mind that your plan may change based on new test results, new side effects, and your preferences.



Who's on my team?

Treatment for ovarian cancer takes a team of experts, including a gynecologic oncologist. This type of doctor is an expert in surgery and chemotherapy for gynecologic cancers. When possible, a gynecologic oncologist should perform the surgery to remove ovarian cancer.

Your care team may also include a medical oncologist. This doctor is an expert in treating cancer with chemotherapy and other medicines.

You may also receive care from registered nurses, nurse practitioners, physician assistants, social workers, genetic counselors, sexual health experts, and others.

Ask for the names and contact information of your care providers to be included in the treatment plan.

Your cancer treatment may be improved if your primary care provider is involved. They can help manage other health conditions that may be affected by your cancer treatment.

How this guide can help you

Making decisions about cancer care is stressful. There's a lot to learn, and you don't know what the future holds.

Use this guide to get the information and support you need.

Patients, doctors, and other health care professionals trust the NCCN Guidelines for Patients. This guide uses clear, everyday language to explain current cancer care recommendations made by respected experts in the field. Their recommendations are based on the latest research and practices at leading cancer centers.

Your health is unique to you, so your cancer care should be, too. As you read this guide, you'll learn which treatments are likely to provide the best results for you. And you'll be better prepared to talk with your care team.

How can I get the best care?

Advocate for yourself. You have an important role to play in your care. Many people feel more satisfied when they actively take part in planning their cancer care.

The NCCN Guidelines for Patients will help you play a larger role in your care. Discuss the recommendations in this guide with your care team. Ask questions about your options and share your goals and concerns.

Don't know what to ask? You're not alone. That's why we include suggested questions to ask at the end of chapters. Keep reading to find the best care for you.

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There is currently no screening test for ovarian cancer. Screening is testing for a disease or problem in people without symptoms. This chapter describes the testing used to learn more about suspected ovarian cancer, including whether treatment should start with surgery or chemotherapy.

Ovarian cancer can cause symptoms, but they may not be noticeable until the tumor has grown large or the cancer has spread. Common symptoms include:

- Feeling bloated
- Heartburn and indigestion
- Pain or pressure in the pelvis or belly
- Trouble eating or feeling full fast
- Having to urinate often or urgently
- Pain during sex

These symptoms can also be caused by hormonal changes or other common health problems. Ovarian cancer is more likely to be the cause of the symptoms if they:

- Began less than 1 year ago
- Occur more than 12 days per month
- Have become more severe over time

If your provider suspects ovarian cancer based on your symptoms, the testing described in this chapter is recommended. Also see **Guide 1**.

Testing helps determine the clinical (pre-treatment) stage. The clinical stage provides a best guess of how far the cancer has spread. It is a best guess because surgery is needed to know exactly how much cancer is in the body.

Testing also helps determine whether you should have surgery first. Having surgery first may not be possible based on the size and location of the tumor, or because of other health factors.

Abdominal and pelvic exam

Your doctor will feel different areas of your belly. This is called an abdominal exam. They are checking the size and firmness of your abdominal organs and looking for signs of fluid buildup (called ascites).

Your doctor will also feel for abnormal changes in the size, shape, or position of your ovaries, cervix, and uterus. This is called a pelvic exam. A widening instrument, called a speculum, is used to view your vagina and cervix. A sample of cells may be removed for testing. This is a Pap test. It's used to detect cervical cancer or pre-cancer, not ovarian cancer.

Sometimes, a biopsy of the uterine lining (an endometrial biopsy) may be part of the initial evaluation during the pelvic exam. This test can rule out uterine cancer.

Your doctor may also check for cancer in the space inside the body between the rectum and vagina. This is called a rectovaginal exam.

Imaging

Imaging tests can show the location, size, and shape of an ovarian tumor. They can also show if the cancer has spread outside the ovaries.

Pelvic ultrasound

Ultrasound is often the first imaging test used to look for ovarian cancer. It uses sound waves to make pictures of areas inside the body.

Ultrasound is good at showing the size, shape, and location of the ovaries, fallopian tubes, uterus, and nearby tissues. It can also show if there's a mass in the ovary and whether the mass is solid or filled with fluid.

The 2 types of pelvic ultrasounds that may be used to look for ovarian cancer are described next. Both are done using a hand-held device called an ultrasound probe.

For a transabdominal ultrasound, a gel that helps conduct sound is first spread on your abdomen and pelvis. Your technician will then place the probe on your skin and guide it back and forth in the gel.

Guide 1
Tests to look for a suspected ovarian tumor and plan treatment if needed

Abdominal and pelvic exam
Imaging: • Pelvic ultrasound • CT or MRI of your abdomen and pelvis • Chest CT (if your team suspects the cancer has spread to your lungs or chest) • Other imaging as needed (PET/CT, MRI, PET/MRI) • Diagnostic laparoscopy (may be performed if the cancer is advanced)
Pathologist exam of tumor tissue
Genetic testing of your blood or saliva for inherited cancer risk
Blood tests: • CA-125 or other tumor markers • General health tests (complete blood count, chemistry profile with liver function tests
Check of your digestive tract using upper endoscopy and colonoscopy (if needed)
Assessing your overall health, fitness level, and nutritional health
Reproductive endocrinology and infertility (REI) evaluation (if needed)

A transvaginal ultrasound may help your doctor see your ovaries more clearly. Your doctor will gently insert the probe into your vagina. You may feel some discomfort when the probe is inserted, but ultrasounds are otherwise painless.

CT

Imaging to look for ovarian cancer may include computed tomography (CT) of your chest, abdomen, and pelvis.

CT is good at showing if the cancer has spread outside the ovaries and if nearby lymph nodes are bigger than normal. Enlarged lymph nodes can be a sign that the cancer has spread.

If you can have it, a substance called contrast is used to make the pictures clearer. Before the scan, you'll be asked to drink a large glass of oral contrast. A contrast agent will also be injected into your vein. It may cause you to feel flushed or get hives. Tell your team if you've had an allergic reaction to contrast in the past.

MRI

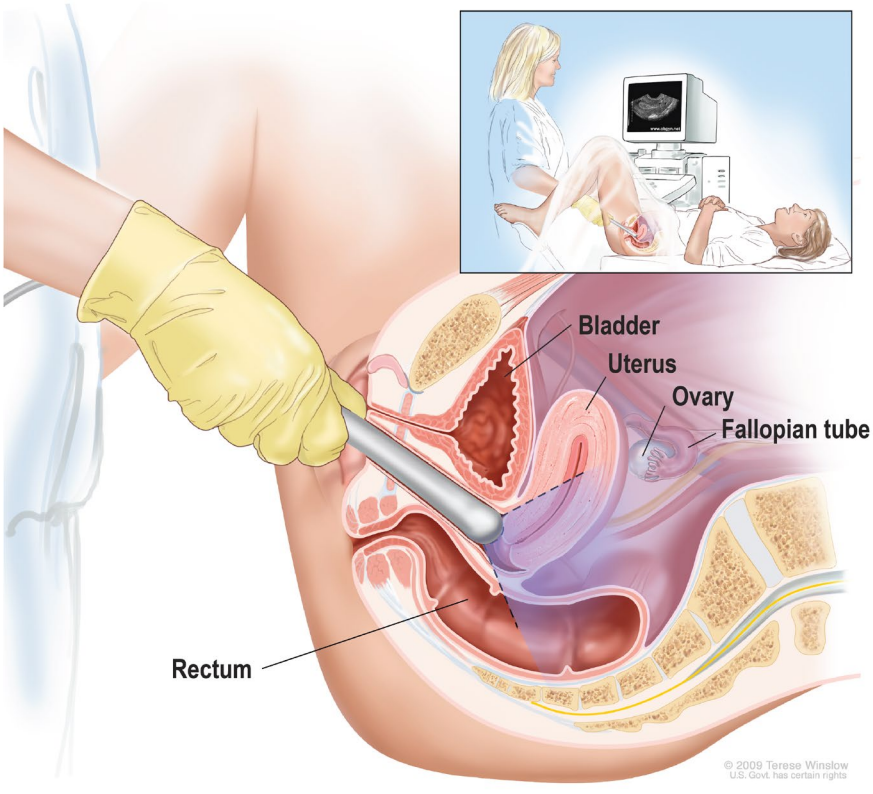
You may have magnetic resonance imaging (MRI) of your abdomen and pelvis to look for signs of cancer spread. MRI doesn't use radiation. It uses radio waves and powerful magnets to take pictures of areas inside the body.

MRI takes longer than CT and the scanner is more enclosed. Tell your care team if you get nervous in enclosed spaces. You may be given a type of medicine called a sedative to help

Pelvic ultrasound

If your doctor suspects ovarian cancer based on your symptoms, ultrasound is often the first imaging performed.

In a transvaginal ultrasound (shown here), a health care provider gently inserts a probe into your vagina.



you relax. Like a CT scan, a contrast agent may be used to make MRI pictures clearer.

PET

If CT or MRI results are unclear or unhelpful, either of these methods may be paired with positron emission tomography (PET). In a PET scan, cancer cells appear brighter than normal cells. This happens because they react differently to a radioactive glucose (sugar) put into your body beforehand.

PET is good at showing small groups of cancer cells and may be helpful for showing if ovarian cancer has spread.

Looking inside the abdomen

If the cancer is advanced, you may have a diagnostic laparoscopy before treatment. The goal is to learn how much cancer is in the abdomen. It helps your doctors decide whether surgery can be your first treatment or if chemotherapy should be given first.

This minimally invasive procedure involves making a tiny cut in the abdomen. A thin tube with a light and a camera (laparoscope) is used to view the lining of the abdomen and the surface of organs in the abdomen. Tissue samples are taken and tested for cancer cells in a lab.

CT scan

CT is good at showing if the cancer has spread beyond the ovaries, and if nearby lymph nodes are bigger than normal.



Blood tests

The following tests are not used alone to diagnose ovarian cancer, but abnormal results may signal health problems.

Tumor markers

A tumor marker is a substance found in body tissue or fluid that may be a sign of cancer. Along with other information, tumor markers can help diagnose ovarian cancer and monitor your response to treatment.

A cancer antigen-125 (CA-125) test is the most common tumor marker test for ovarian cancer. High levels of this protein in the blood may be a sign of ovarian or other cancers. A CA-125 test alone cannot diagnose ovarian cancer.

Health problems that are not cancer, such as endometriosis and diverticulitis, can raise your CA-125 level. Some ovarian cancers don't cause CA-125 to rise.

Your blood may also be tested for the following tumor markers. These may be found in higher-than-normal amounts in people with less common ovarian cancers.

- Inhibin (typically inhibin A and inhibin B)
- Beta-human chorionic gonadotropin (β-hCG)
- Alpha-fetoprotein (AFP)
- Lactate dehydrogenase (LDH)
- Carcinoembryonic antigen (CEA)
- CA 19-9
- HE4

General health

A complete blood count (CBC) measures the number of red blood cells, white blood cells, and platelets in a sample of blood. Red blood cells carry oxygen throughout the body. White blood cells fight infection. Platelets help to control bleeding. Your blood counts may be too low or too high because of cancer or other health problems.

A blood chemistry profile measures the levels of different chemicals that are affected by your kidneys, bones, and other organs and tissues. Levels that are too high or too low may be a sign that an organ isn't working well. Abnormal levels may also be caused by the spread of cancer or by other diseases. This test can also provide information about nutrient intake, such as protein levels.

The liver is an organ that does many important jobs, such as removing toxins from your blood. Liver function tests measure chemicals that are made or processed by the liver. Levels that are too high or low may be a sign of liver damage or cancer spread.

Tissue tests for diagnosis

To diagnose ovarian cancer and determine the cancer type, tumor tissue needs to be removed from your body and tested.

If surgery is planned first, the tumor and other tissues your surgeon removes will be tested.

If chemotherapy is planned first, you'll have a biopsy before any treatment starts. Types of biopsies include:

- Fine-needle aspiration (FNA) uses a very thin needle to remove tissue samples.
- Core biopsy uses a hollow needle to remove tissue samples.
- Paracentesis uses a long, thin needle inserted through the skin of the belly to remove a sample of fluid.

Your doctor will avoid inserting the needle directly into the ovary. Rupturing the ovary's outer covering can cause cancer cells to spill into the body.

A physician expert called a pathologist views the samples with a microscope. If the cells are cancerous, the pathologist notes their appearance and other features, including the specific type of ovarian tumor.

The pathologist also determines the cancer grade (not to be confused with the cancer stage). The grade is a rating of how abnormal the cancer cells look under a microscope. High-grade cancers grow and spread more quickly than low-grade cancers.

Cancer found during prior surgery or biopsy

The cancer may have been found during a surgery or biopsy performed by another doctor. In this case, your treatment team will need to review the prior surgery and testing results. A pathologist will examine the tumor tissue with a microscope to make sure it's ovarian cancer. Your doctors will also want to know if any cancer was left in your body after surgery.

Genetic testing for inherited cancer risk

About 1 in 6 ovarian cancers is caused by differences in genes that are passed down from parent to child. Gene differences you're born with are called **germline variants**.

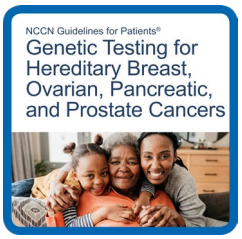
Hereditary ovarian cancer is most often caused by germline variants in breast cancer gene 1 (*BRCA1*) or breast cancer gene 2 (*BRCA2*). Lynch syndrome can also cause hereditary ovarian cancer, and is the most common cause of hereditary colon and uterine cancers.

Genetic testing is recommended for anyone diagnosed with epithelial ovarian cancer (including fallopian tube cancer and peritoneal cancer) at any age. The testing is done on normal tissue—blood, saliva, or a cheek swab.

There are many other hereditary syndromes besides *BRCA* and Lynch. Genetic testing typically tests for all of them.

Gene changes that happen after conception are called **somatic mutations**. In addition to testing your blood or saliva for inherited *BRCA* variants, the tumor itself should be tested for mutations in the *BRCA* and related genes. This is called biomarker testing. It's discussed in more detail later on the next page.

For more information on testing for hereditary ovarian cancer, see *NCCN Guidelines for Patients: Genetic Testing for Hereditary Breast, Ovarian, Pancreatic, and Prostate Cancers,* available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Genetic testing is recommended for everyone diagnosed with ovarian cancer. It can determine if you have any inherited differences in the *BRCA* genes, or in other genes that play a role in hereditary cancer.



Biomarker testing

Biomarkers are features of the tumor that can help guide your treatment. Many are mutations (changes) in the DNA of the cancer cells. Gene changes that happen after conception are called somatic mutations.

The preferred way to learn if the cancer has biomarkers is for a pathologist to analyze a sample of the tumor in a lab. If this isn't possible, a sample of your blood can be tested instead.

The results can be used to determine whether you can join certain clinical trials, and whether you may benefit from specific maintenance therapies.

BRCA and HRD

In addition to testing your blood or saliva for inherited *BRCA* variants, all ovarian tumors should be tested for somatic mutations in the *BRCA* and related genes.

BRCA mutations are a form of homologous recombination deficiency (HRD). This means that cancers with a *BRCA* mutation are also homologous recombination deficient, or HRD positive. However, you can have an HRD-positive tumor without a *BRCA* mutation. Other changes in the tumor's DNA can make it homologous recombination deficient.

The tumor's *BRCA* and HRD status are important biomarkers used to guide decisions about maintenance therapy after initial treatment.

Other biomarkers

The timing of testing for the biomarkers described next can vary. Some providers test for these (in addition to *BRCA*) early in the treatment process. Others may only test for *BRCA* and wait to see if therapies that require other biomarkers are needed.

However, testing for these biomarkers is generally recommended for ovarian cancer that returns after treatment (recurrent). Testing is performed on removed tumor tissue.

- Microsatellite instability (MSI)
- Mismatch repair (MMR)
- HER2 expression
- Tumor mutational burden (TMB)
- *BRAF* V600E mutation
- *KRAS* mutation
- Folate receptor alpha (FRα) expression
- *RET* mutations
- *NTRK1/2/3* gene fusion
- PD-L1 expression

Nutritional and digestive tract health

Your provider may ask about your diet and eating habits. Symptoms of ovarian cancer include bloating, pain in the pelvis or abdomen, difficulty eating, and feeling full quickly.

These symptoms may cause you to eat less in general, or to eat foods lacking in nutrients. Your overall health and nutrition level can have an impact on the success of surgery and other treatment outcomes. If you need help planning healthy meals or have questions about your diet, ask your provider for a referral to a registered dietitian or nutritionist.

Your doctor may want to check your gastrointestinal (GI) tract using an imaging test. The GI tract is made of the organs that food passes through when you eat. It includes your stomach, small bowel, and large bowel (rectum and colon).

An imaging tool called an endoscope (or scope for short) is used to examine these organs. A scope is a long, thin tube with a light and a camera that can be guided into your body.

To examine the upper GI tract, a scope is guided down the throat into the esophagus, stomach, and small bowel. This is called an upper endoscopy.

A colonoscopy is used to examine the large bowel. This involves inserting a scope into your anus and guiding it through your rectum and colon.

Symptoms

Symptoms of ovarian cancer include bloating, pain in the pelvis or abdomen, difficulty eating, and feeling full quickly. Your doctor may want to check your gastrointestinal (GI) tract using an imaging test. The GI tract is made of the organs that food passes through when you eat.

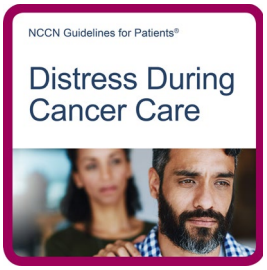


Key points

- An abdominal or vaginal ultrasound is often the first imaging test performed for a suspected ovarian mass. If the images are unclear, you may have CT or MRI of your abdomen and pelvis.
- If needed, CT is good at showing if the cancer has spread outside the ovaries, and if nearby lymph nodes are bigger than normal. Scans of your chest, abdomen, and pelvis are recommended.
- Blood tests for suspected ovarian cancer include a complete blood count (CBC), chemistry profile, liver function tests, and tumor marker tests. A cancer antigen-125 (CA-125) test is the most common tumor marker test for ovarian cancer.
- A diagnosis of ovarian cancer is made by examining tumor tissue under a microscope. If surgery is planned first, the tumor and other tissues your surgeon removes will be tested. If chemotherapy is planned first, you'll have a biopsy to confirm the cancer type before any treatment starts.
- Everyone diagnosed with epithelial ovarian cancer (including fallopian tube cancer and peritoneal cancer) at any age should have genetic testing of their blood or saliva for inherited differences in the *BRCA* and related genes that increase risk of ovarian cancer.
- The ovarian tumor itself should be tested for somatic mutations (changes) in the *BRCA* and related genes. Cancers with a *BRCA* mutation are also homologous recombination deficient, or HRD positive.

Questions to ask

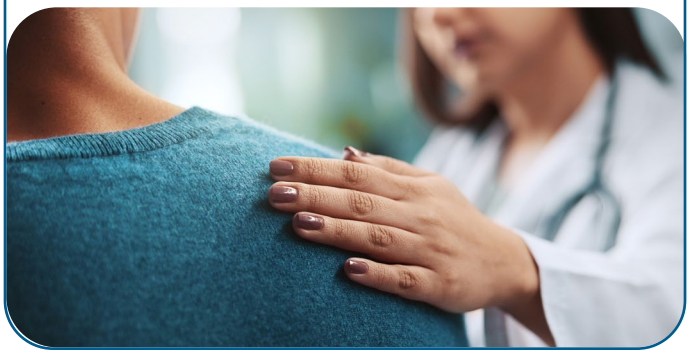
- Why do I have to wait until after surgery to learn the cancer type?
- Ovarian cancer runs in my family. Do I have an inherited *BRCA* variant?



It's okay to ask for help

Ask for help if you are feeling sad, scared, helpless, angry, anxious, or any other emotions that can come with a cancer diagnosis.

For more information about cancer and distress, see *NCCN Guidelines for Patients: Distress and Cancer Care* at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



3

Treatment for common ovarian cancers

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23 If surgery first isn’t an option

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The most common types of ovarian cancer are high-grade serous carcinoma and high-grade endometrioid carcinoma. These cancers are treated with surgery and chemotherapy. If treatment works well, maintenance therapy may be an option for more advanced cancers.

Surgery

If you're well enough to have major surgery, and if most or all of the cancer can be removed, surgery is often the primary (first) treatment. Sometimes chemotherapy is given first. If your team recommends chemotherapy before surgery, see page 23.

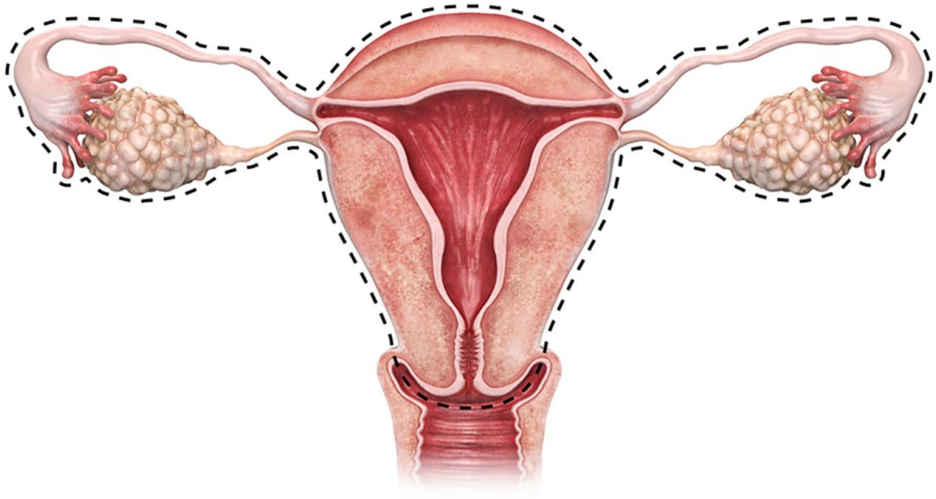
Surgery should be performed by a gynecologic oncologist. This is a surgeon who is an expert in cancers that start in the female reproductive organs.

The main goals of surgery are to:

- Remove all or as much of the cancer as possible, and
- Learn how far the cancer has spread.

Hysterectomy and BSO

The most commonly used surgery for ovarian cancer removes the uterus, both ovaries, and both fallopian tubes.



Hysterectomy and BSO

The most common surgery for ovarian cancer is hysterectomy and bilateral salpingo-oophorectomy (BSO). A hysterectomy is surgery to remove the uterus. When the cervix is removed in addition to the uterus, it's called a total or complete hysterectomy. A BSO removes both ovaries and both fallopian tubes.

Pregnancy isn't possible after a hysterectomy. Fertility-sparing surgery (described below) may be an option for some very early ovarian cancers that haven't spread outside the ovaries.

If cancer has spread outside the ovaries, your surgeon will attempt to remove as much of it as possible. This is called debulking or cytoreductive surgery. The extent of the surgery depends on how far the cancer has spread. It may involve removing all or part of nearby organs. Lymph nodes that look abnormal or that are larger than normal will also be removed when possible.

Fertility-sparing surgery

Pregnancy isn't possible after the uterus is removed. This is difficult for people wishing to get pregnant in the future. However, fertility-sparing surgery may be an option.

This involves removing 1 or both ovaries and fallopian tubes but leaving the uterus in place. Surgery to remove 1 ovary and its fallopian tube is called a unilateral salpingo-oophorectomy (USO). USO is only an option if the cancer is in 1 ovary and the cancer is appropriate for this procedure.

After a USO, you may still be able to become pregnant naturally if you haven't entered menopause.

If the cancer is in both ovaries, a BSO (without hysterectomy) may be an option. While you can't become pregnant naturally after a BSO, pregnancy may be possible using assisted reproductive approaches. One such approach is in vitro fertilization (IVF).

In IVF, eggs are fertilized with sperm in a lab to create embryos. The embryos are implanted into the uterus or frozen for future use. The eggs used for IVF may be yours (removed from your ovary before surgery) or donor eggs. Donor eggs are removed from women who have volunteered to go through hormone treatment to stimulate egg production in the ovaries.

Surgical methods

A laparotomy is the most common method of ovarian cancer surgery. A laparotomy is a long surgical cut in the abdomen. It's often an up-and-down (vertical) cut from the top of the belly button down to the pelvic bone.

This lets your doctor see the tumor and other organs and tissues in your abdomen and pelvis. This method is recommended most often when surgical staging (described next) or cytoreductive surgery is planned.

Less often, a minimally invasive type of surgery called laparoscopy may be used. The surgery is performed through a few small cuts in the abdomen. Laparoscopy may be used in select cases, such as when cancer is only in the ovaries. This surgery should only be done by a gynecologic oncologist experienced in this method.

Surgical staging

If it doesn't look like the cancer has spread, surgical staging should be performed. Surgical

staging is the most accurate way to stage ovarian cancer. It involves taking samples during surgery from organs and tissues where ovarian cancer often spreads. The samples are tested for cancer cells.

Your surgeon will also take samples from nearby tissues where it looks like cancer hasn't spread. This is done to check for cancer cells that have spread outside the ovaries or pelvis and can only be seen with a microscope. These are called microscopic metastases.

The omentum and sometimes nearby lymph nodes will be removed. The omentum is the fatty layer of tissue that covers organs in the belly (abdomen). Lymph nodes are groups of disease-fighting cells where cancer can also spread. If fluid has built up in the abdomen, it will also be sampled. If there's no fluid buildup, your doctor may "rinse" the space inside your belly with a special liquid. This is called a peritoneal washing. Samples of the liquid will then be tested for cancer cells.

Premature menopause

If you are premenopausal, surgically removing the ovaries results in a sudden decrease in estrogen in the body. This is called surgical menopause. You may experience symptoms of menopause, including:

- Hot flashes
- Sleeping problems
- Night sweats
- Weight gain
- Changes in mood
- Thinning, drying, and irritation of the vaginal lining (vaginal atrophy)

When caused by surgery, the symptoms of menopause may be sudden and more severe. There are also long-term risks of not having enough estrogen. They include heart or blood vessel problems (cardiovascular disease) and bone loss (osteoporosis).

If you have symptoms of surgical menopause, your doctor may suggest non-hormonal medicine or menopausal hormone therapy (MHT). Discussion with a menopausal symptom team along with your oncologist is recommended to determine whether MHT is right for you.

Other risks and side effects of surgery

With any type of surgery, there are health risks and side effects. Common side effects include pain, swelling, and scars. Common side effects of ovarian cancer surgery include leg swelling, trouble urinating, and constipation.

Cancer and recent abdominal surgery are risk factors for developing blood clots, also known as deep vein thrombosis (DVT). You may be prescribed a blood thinner (either an oral medication or injections) for up to 4 weeks after surgery to help prevent blood clots.

If surgery first isn't an option

Sometimes having surgery first isn't an option. This may be because of the size or location of the tumor, or because of other health concerns. In this case, chemotherapy is given first to shrink the cancer. This is called neoadjuvant therapy.

Before starting chemotherapy, you'll have a biopsy to confirm that the tumor is definitely ovarian cancer. At this time, the **preferred** regimen for neoadjuvant therapy is paclitaxel and carboplatin. Bevacizumab (Avastin) may also be included. If you can't have this preferred regimen, there are other recommended options.

Interval debulking surgery

If the cancer improves after 2 to 3 months of chemotherapy, interval debulking surgery (IDS) is recommended. The goal is to remove as much of the cancer as possible, as well as the ovaries, fallopian tubes, and uterus.

During surgery, chemotherapy (usually cisplatin) may be warmed and then circulated around your abdomen, reaching the spaces between the organs. This is called hyperthermic intraperitoneal chemotherapy (HIPEC).

After surgery, more chemotherapy is usually given. Maintenance therapy may follow once your cancer is in remission. These topics are discussed later in this chapter, after staging.

Staging

The information gained during surgery and surgical staging is used to determine the pathological (post-surgery) stage. This stage provides the most accurate picture of how far the cancer has spread. It's used to guide treatment after surgery.

A staging system is a standard way of describing the extent of cancer in the body. There are 2 staging systems for ovarian cancer. One was developed by the American Joint Committee on Cancer (AJCC), the other by the International Federation of Gynecology and Obstetrics (FIGO). They are similar, but the FIGO system is used most often.

In the FIGO system, the cancer stage is defined by 3 main areas of cancer growth:

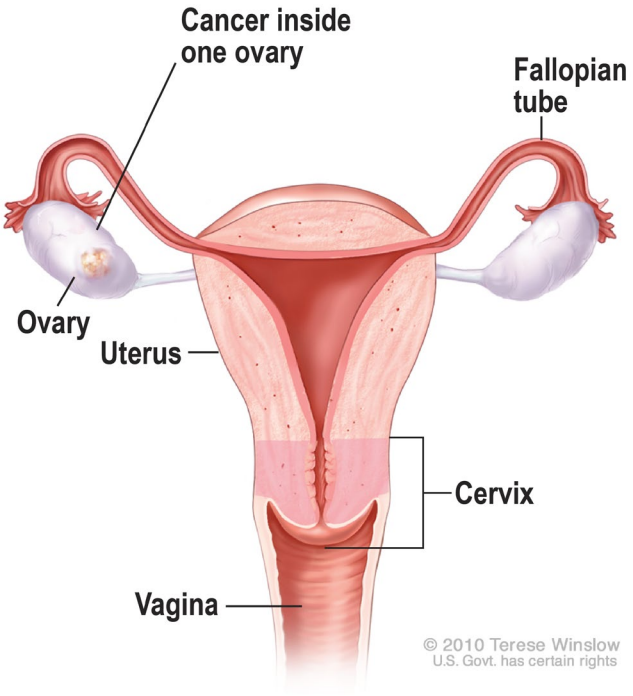
- Extent of the first (primary) tumor
- Spread of cancer to nearby lymph nodes
- Spread of cancer to distant sites

Ovarian cancer stages are numbered from 1 to 4, although doctors use Roman numerals (I, II, III, and IV). The stages are also divided into substages to help describe the extent of the cancer in more detail.

The FIGO stages of ovarian cancer are described on the following pages. Cancers of the same stage tend to have similar outcomes. Early-stage cancers tend to have better outcomes than more advanced cancers. Other factors not used for staging, such as your general health, are also important.

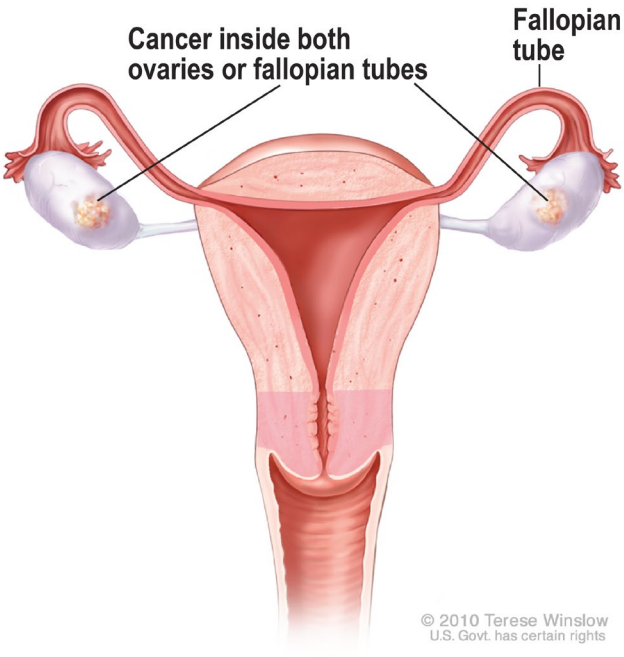
Stage 1A

Cancer is in one ovary. The outer sac (capsule) of the ovary is intact. There is no cancer on the outside surface of the ovary. No cancer cells are found in ascites or washings.



Stage 1B

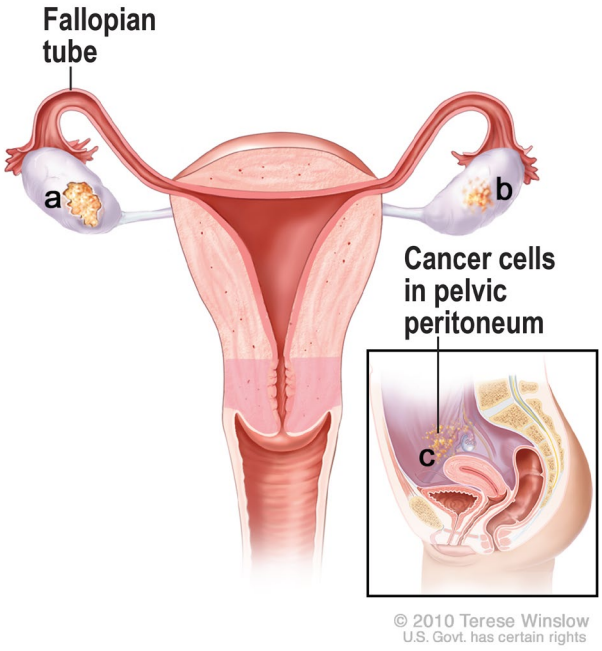
Cancer is in both ovaries. The capsules are intact, and there is no cancer on the outside surface of the ovaries. No cancer cells are found in ascites or washings.



Stage 1C

Cancer is in one or both ovaries, and one or more of the following has happened:

- **Stage 1C1 – The capsule of the ovary broke open during surgery. This is called surgical spill.**
- **Stage 1C2 – The capsule of the ovary broke open before surgery, or there is cancer on the outer surface of the ovary or fallopian tube.**
- **Stage 1C3 – Cancer cells are found in ascites or washings.**



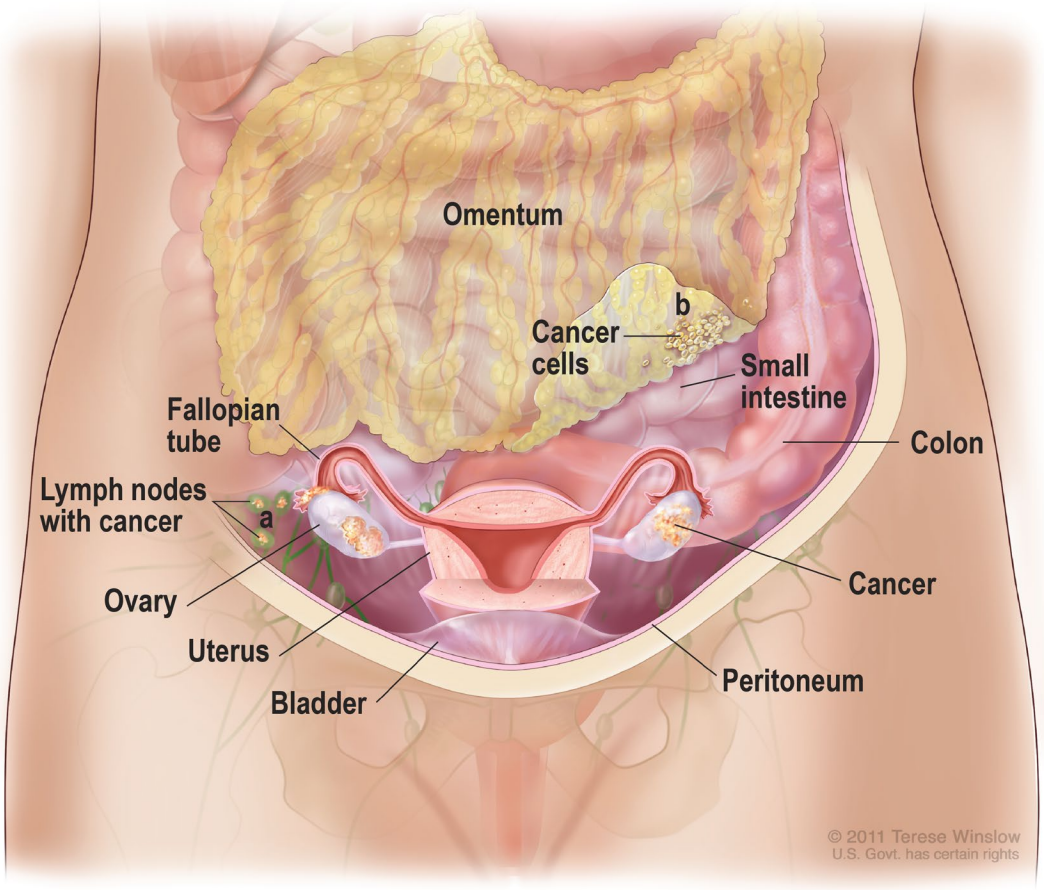
Stage 3A1

Cancer is in one or both ovaries. It has spread to lymph nodes in the back of the abdomen (retroperitoneal lymph nodes).

- **Stage 3A1 (i) – Cancer in the lymph nodes is 10 millimeters (mm) or smaller.**
- **Stage 3A1 (ii) – Cancer in the lymph nodes is larger than 10 mm.**

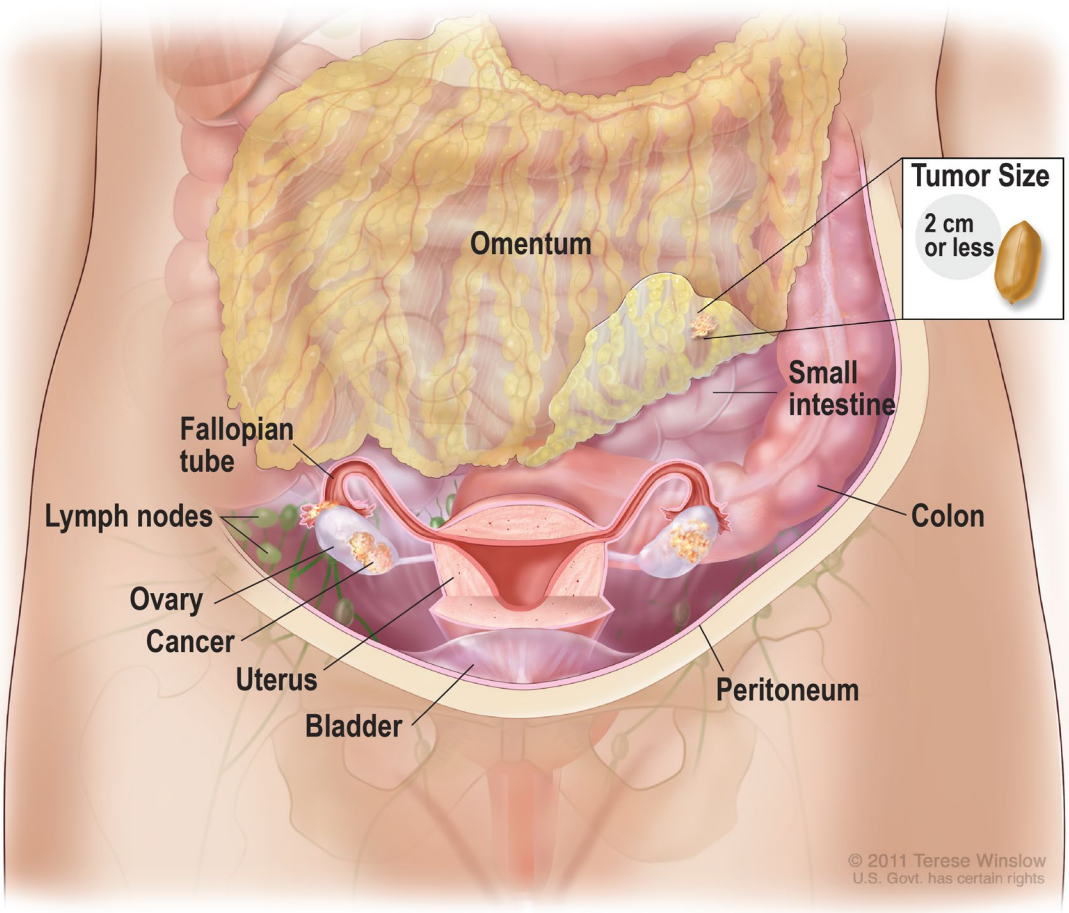
Stage 3A2

Cancer has spread to the tissue lining the abdomen. It is so small it can only be seen with a microscope. There may also be cancer in lymph nodes in the back of the abdomen.



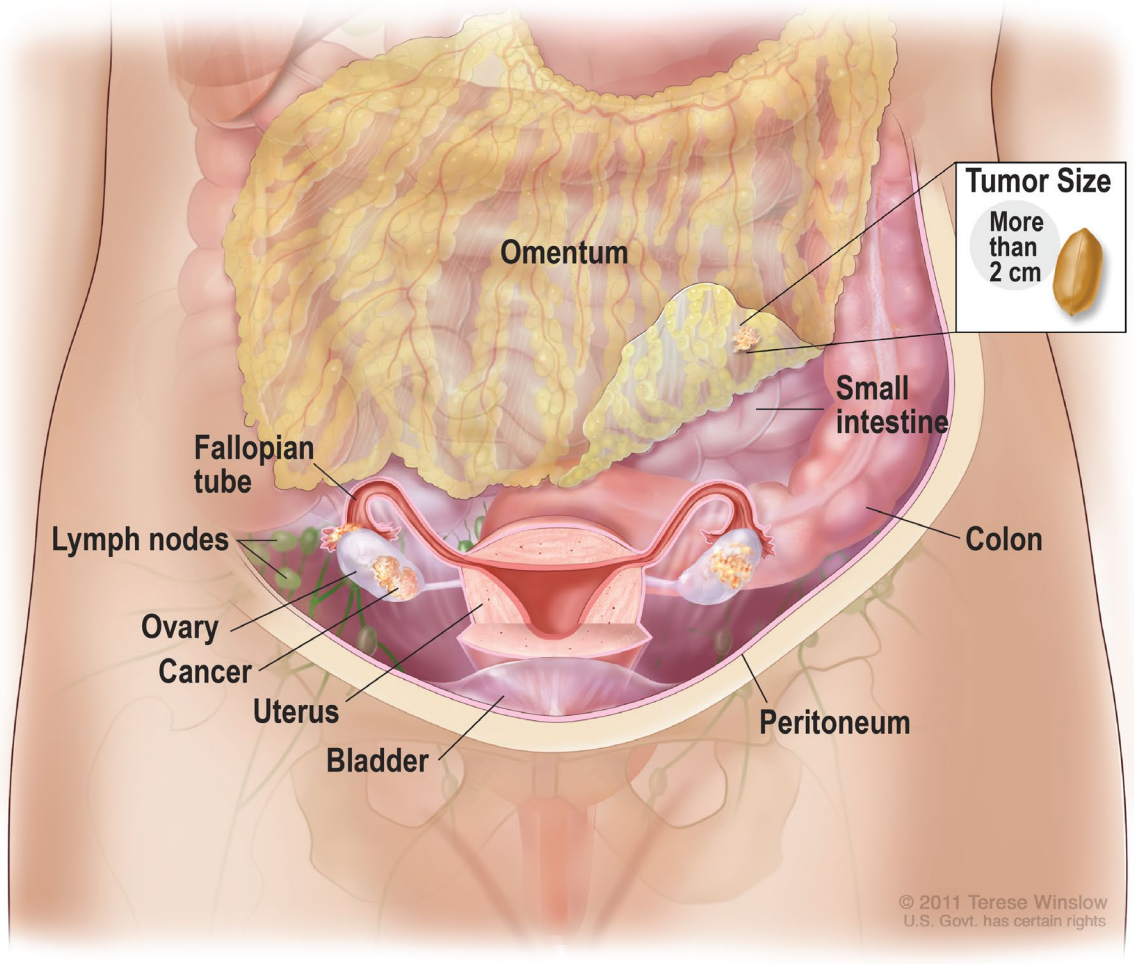
Stage 3B

There is visible cancer on the tissue lining the abdomen. The area of cancer is smaller than a peanut (about 2 centimeters [cm] or smaller). There may also be cancer in lymph nodes in the back of the abdomen.



Stage 3C

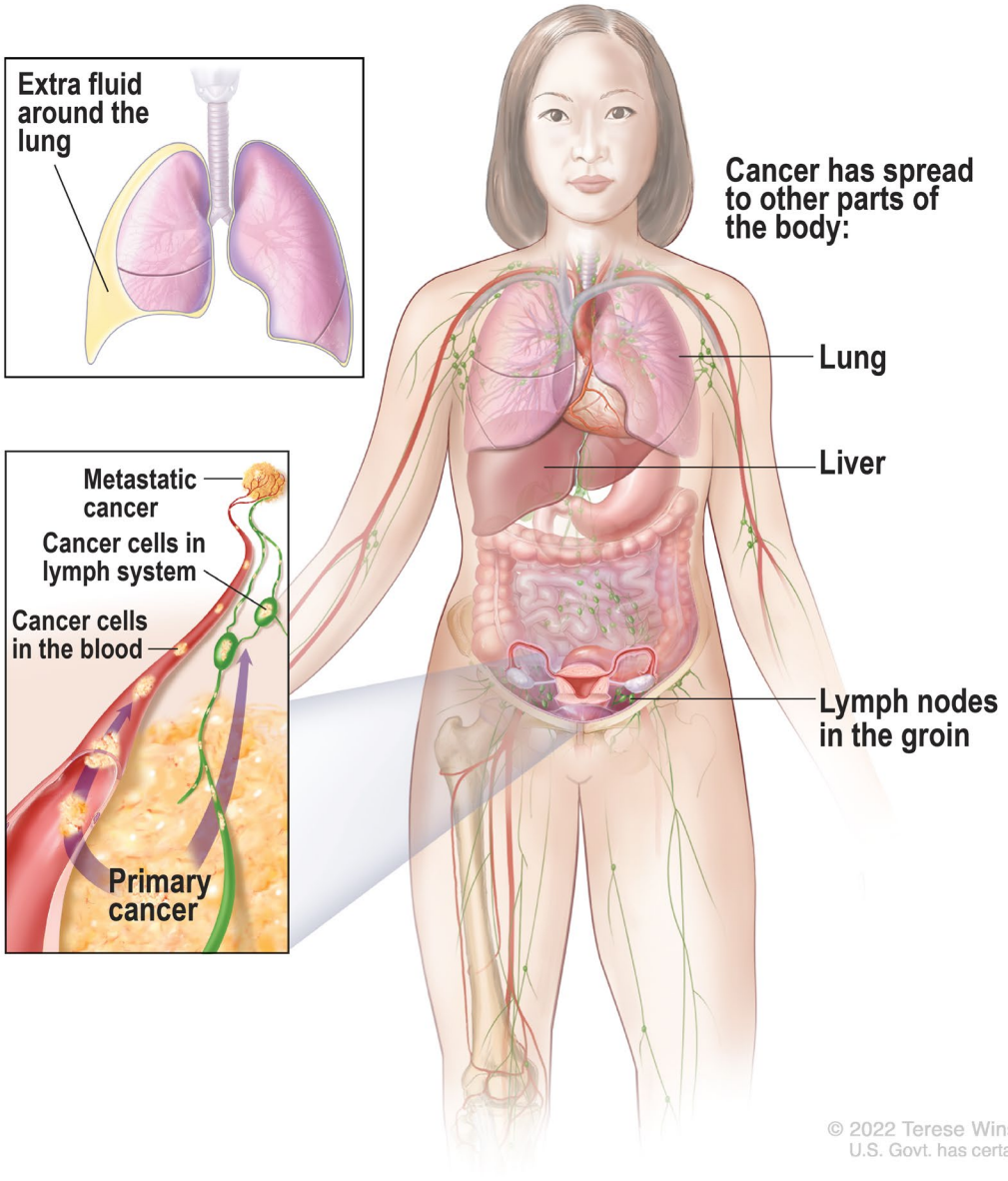
There is visible cancer on the tissue lining the abdomen. The area of cancer is larger than 2 cm. There might be cancer in lymph nodes in the back of the abdomen. The cancer may also have spread to the outer surface of the liver or spleen.



Stage 4

Cancer has spread to other parts of the body.

- **Stage 4A – There are cancer cells in the fluid around the lungs. This is called a malignant pleural effusion.**
- **Stage 4B – Cancer has spread to the inside of the liver or spleen, to distant lymph nodes, or to other organs outside the abdomen.**



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Chemotherapy

Chemotherapy is the use of medicine(s) to kill cancer cells. When given before surgery, chemotherapy is called **neoadjuvant** therapy. When given after surgery, it's called primary or **adjuvant** chemotherapy.

Platinum-based chemotherapy is recommended for ovarian cancer. These medicines contain the metal platinum. Carboplatin and cisplatin are platinum chemotherapies. One of these is often given with a type of chemotherapy called a taxane. Paclitaxel and docetaxel are taxanes.

Your options for chemotherapy will depend on your age and overall health. Your provider will also consider your risk for nerve damage, called peripheral neuropathy. This common side effect of paclitaxel causes pain, tingling, and numbness, often in the hands and feet.

Consider receiving treatment as part of a clinical trial. Ask your care team if you're eligible for any current studies. See page 38 for more information.

All systemic treatments listed in this guide are recommended and appropriate. When helpful, NCCN experts also assign a level of preference to their recommendations for systemic therapies:

- **Preferred therapies** have the most evidence they may work better and be safer than other therapies.
- **Other recommended therapies** can provide effective results but may have less evidence, more side effects, or may not work quite as well as preferred therapies.
- **Therapies used in certain cases** work best for individuals with specific cancer features or health circumstances.

Stage 1

Chemotherapy is recommended after surgery for most newly diagnosed stage 1 cancers. Observation may be an option for a stage 1A or 1B, low-grade (slow-growing) tumor. Ask your doctor if this describes your tumor.

At this time, the **preferred** chemotherapy regimen is paclitaxel with carboplatin given every 3 weeks. Preferred therapies have the most evidence they may work better and may be safer than other therapies.

If you can't have the preferred regimen, you have other options. Other recommended therapies can provide effective results but may have less evidence, more side effects, or may not work quite as well as preferred therapies.

Six cycles of chemotherapy are recommended for high-grade serous tumors. Between 3 and 6 cycles are recommended for all other stage 1 tumors. The specific number of cycles needed depends on the tumor type and other factors.

Talk to your care team about your options for supportive care. This range of care and services available to people with cancer can provide mental, physical, and practical support.

Stages 2, 3, and 4

For common tumor types, chemotherapy is recommended after surgery for all newly diagnosed stage 2, 3, and 4 ovarian cancers.

At this time, the **preferred** chemotherapy regimen is paclitaxel with carboplatin given every 3 weeks. Six cycles are given for stage 2, 3, and 4 cancers. A drug called bevacizumab (Avastin) may be added to your chemotherapy. It stops the growth of new blood vessels that feed the tumor.

And, if you can't have the preferred regimen, there are other recommended options to consider together with your care team.

If chemotherapy works well, maintenance therapy may follow. See page 32 for more information.

Intravenous chemotherapy

Most chemotherapy for ovarian cancer is intravenous. This means the medicine is put directly into your bloodstream through a vein.

Chemotherapy is given in cycles of treatment followed by days of rest. This allows the body to recover before the next treatment. The cycles vary in length depending on which drugs are used.

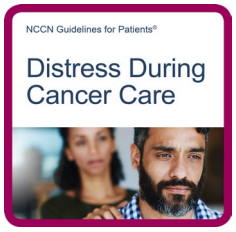
You may get a port to receive chemotherapy. This is a small, round disc usually placed under your skin in the upper chest. It's inserted during a minor surgery and stays in the body until treatment is complete. After treatment, the port can be easily removed. Once the port is removed, the skin will heal.

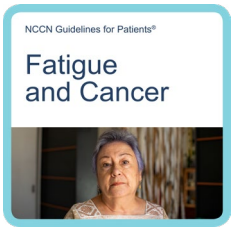
Chemotherapy side effects

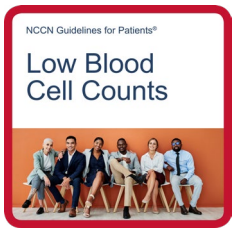
Common side effects of chemotherapy include hair loss, mouth sores, nerve damage, nausea, vomiting, low blood cell counts, and others.

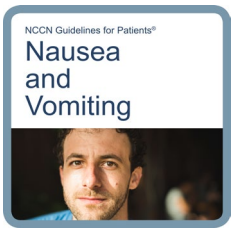
Ask your care team about ways to prevent or relieve side effects. For example, wearing frozen gloves and booties during chemotherapy infusions may lessen nerve damage in the hands and feet. Similarly, wearing a cooling cap on your scalp during infusions may prevent or lessen hair loss.

More information on supportive care is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.









Intraperitoneal chemotherapy

Chemotherapy medicine can also be slowly injected into the abdomen. This is called intraperitoneal (IP) chemotherapy. When given this way, higher doses of the drugs are delivered directly to the cancer cells in the belly area.

IP chemotherapy is given through a thin tube called a catheter. The catheter is usually connected to a port placed inside the abdomen during surgery.

Intraperitoneal chemotherapy tends to cause more severe side effects than intravenous chemotherapy. This includes infections, kidney damage, pain in the belly, and nerve damage.

HIPEC

During interval debulking surgery, chemotherapy (typically cisplatin) can also be warmed and circulated around the abdomen, reaching the spaces between the organs. This is called hyperthermic intraperitoneal chemotherapy (HIPEC).

Testing during chemotherapy

Your provider will monitor how well chemotherapy is working and check for side effects. Expect to have a physical exam every 1 to 3 cycles. A pelvic and rectovaginal exam may be done at the same time. Imaging and blood tests are ordered as needed. Testing for CA-125 or other tumor markers may be performed before each cycle of chemotherapy.

What's next?

If the cancer improves as a result of chemotherapy, maintenance therapy is often the next step.

Maintenance therapy

Maintenance therapy is the use of systemic therapy after successful initial treatment for ovarian cancer. It can reduce the risk of cancer returning or extend the time until it returns or gets worse. Maintenance therapy is an option for stage 2, 3, and 4 cancers that respond well to surgery and platinum-based chemotherapy.

If maintenance therapy is planned, a PARP inhibitor (PARPi), bevacizumab, or both are often recommended.

Bevacizumab is a type of anti-cancer medicine called an angiogenesis inhibitor. It blocks the tumor from forming the new blood vessels it needs to grow.

PARP inhibitors are oral targeted therapies that work best in homologous recombination deficiency (HRD)-positive cancers, including those caused by a *BRCA* mutation.

PARP inhibitors currently used for maintenance therapy after initial treatment of ovarian cancer include:

- Olaparib (Lynparza)
- Niraparib (Zejula)
- Rucaparib (Rubraca)

BRCA-mutated cancers

If you have an inherited *BRCA* variant, or the cancer has a *BRCA* mutation, and bevacizumab **wasn't included** in your chemotherapy, maintenance therapy with any of the 3 PARP inhibitors is recommended. Observation may be an option for some stage 2 cancers that had a complete response to chemotherapy.

If bevacizumab **was included** in your primary chemotherapy, maintenance therapy with both olaparib and bevacizumab is recommended. If you can't have olaparib, niraparib is given instead. Maintenance therapy with a PARP inhibitor alone is also an option, but there's less evidence supporting this option.

HR-deficient cancers (normal or unknown *BRCA* status)

If you don't have a *BRCA* mutation (or have not had a *BRCA* test) and bevacizumab **wasn't included** in chemotherapy, maintenance therapy with any of the 3 PARP inhibitors is recommended. Observation is also an option if you had a complete response to chemotherapy.

If bevacizumab **was included** in your primary chemotherapy, maintenance therapy with olaparib and bevacizumab is a recommended option. If you can't have olaparib, niraparib is given instead. Maintenance therapy with either bevacizumab or olaparib alone are also options for these cancers.

HR-proficient cancers (normal or unknown *BRCA* status)

If you had a complete response after chemotherapy without bevacizumab, observation is recommended. If you had less than a complete response, systemic therapy for persistent or recurrent disease is recommended.

If bevacizumab **was included** in your primary chemotherapy, maintenance therapy with bevacizumab alone is recommended.

How long does maintenance therapy last?

The length of maintenance therapy after initial treatment with surgery and platinum chemotherapy varies based on the regimen received.

When any of the 3 PARP inhibitors is used alone, maintenance therapy lasts 2 to 3 years, depending on the specific inhibitor.

When olaparib or niraparib is paired with bevacizumab (after chemotherapy that included bevacizumab), the 2 medicines can be given together for up to 15 months. The PARP inhibitor can be continued alone.

Keep in mind that these recommendations can change with ongoing research.

Any maintenance therapy will be stopped if the cancer grows or spreads. It will also be stopped if the side effects become too harsh or make it unsafe to continue.

Surveillance

When there are no signs of cancer after treatment, expect to see your oncologist on a regular basis for physical and pelvic exams.

First 2 years: Every 2 to 4 months

Next 3 years: Every 3 to 6 months

After 5 years: Once a year

Your provider may order blood and imaging tests if you develop symptoms or if there are other reasons to suspect relapse.

If your CA-125 level (or other tumor marker) was high originally, it may be checked on a regular basis after treatment.

In addition to surveillance testing, a range of other care is important for cancer survivors. See *Chapter 5: Survivorship* for more information.

Recurrence

The return of cancer after treatment is called a recurrence, or a relapse. Symptoms can be a sign of recurrence. Tell your care team if you have any of these symptoms:

- Pain or bloating in your pelvis or belly
- Unexplained weight loss
- Upset stomach
- Constipation
- Trouble eating or feeling full fast
- Fatigue
- Needing to urinate often or urgently

"I learned that getting a second opinion had nothing to do with trusting my doctor. It was the process of getting all the information I needed to make the best decisions for my treatment."



Biomarker testing

The presence of specific biomarkers helps guide treatment for recurrent ovarian cancer. If testing for the following biomarkers hasn't already been done, it's recommended now:

- HER2 expression
- PD-L1 expression
- *BRCA1* and *BRCA2* mutations
- Homologous recombination deficiency (HRD) status
- Microsatellite instability (MSI)/mismatch repair (MMR) status
- Tumor mutational burden (TMB)
- *BRAF* V600E mutation
- *KRAS* mutations
- Folate receptor alpha expression (FRα)
- *RET* gene fusions
- *NTRK* gene fusions

Your doctor may choose to test for even more biomarkers than those listed. Everyone with persistent or recurrent ovarian cancer is encouraged to consider a clinical trial for treatment.

Platinum-sensitive cancer

If you enter complete remission after platinum chemotherapy and cancer returns more than 6 months later, the cancer is considered **platinum sensitive**. This means that platinum-based chemotherapy drugs work well against the cancer.

Because it worked well before, platinum chemotherapy is typically recommended for recurrent platinum-sensitive disease. This is especially true for the first recurrence. Bevacizumab (Avastin) may be added to chemotherapy.

In certain circumstances, before you start treatment for recurrence, your doctor may suggest surgery to remove all visible cancer. This is called secondary cytoreductive surgery.

If recurrence treatment with platinum-based chemotherapy works well or very well, maintenance therapy is an option. If bevacizumab was included in your recurrence chemotherapy regimen, it can be continued alone as maintenance therapy.

If the cancer is *BRCA*-mutated and you've never received PARP inhibitor therapy, it may also be an option for maintenance therapy. When given after recurrence chemotherapy, maintenance therapy with a PARP inhibitor can be continued until the cancer grows or spreads, or until the side effects make it intolerable or unsafe to continue.

If the cancer returns again, treatment with targeted therapy or immunotherapy may be an option if the cancer has any biomarkers (unique features).

Endocrine therapy

Until menopause, the ovaries make the hormones estrogen and progesterone. Hormones are sometimes offered to help with symptoms of menopause, such as hot flashes. This is known as menopausal hormone therapy (MHT). However, MHT can help some ovarian cancers grow.

In some cases, treatment can be used to block these hormones from working, or to lower hormone levels. The goal is to help slow ovarian cancer growth. This is called endocrine

therapy or anti-estrogen therapy. It may be used for persistent or recurrent ovarian cancer, most often for low-grade (slow-growing) tumors.

Endocrine therapy often causes symptoms of menopause, including:

- Hot flashes
- Mood changes
- Vaginal dryness
- Trouble sleeping
- Night sweats
- Vaginal discharge
- Weight gain

Other side effects include swelling in the hands and feet, fatigue, and less interest in sex. Blood clots are a rare but serious side effect of tamoxifen. Aromatase inhibitors can weaken your bones and may also cause joint and muscle pain.

Radiation therapy to help with symptoms

Depending on the specific recurrence treatment planned, radiation therapy may also be given to help with symptoms. It can be used to treat vaginal bleeding, areas of cancer in bone, and isolated areas causing pain.

Radiation treatment to the pelvis can cause the vagina to become shorter and narrower (vaginal stenosis). This can make it uncomfortable or even painful to have sex, or to have vaginal exams by a doctor.

Using a vaginal dilator can prevent or treat vaginal stenosis. This is a device used to gradually stretch or widen the vagina. You can start using one as soon as 2 to 4 weeks after radiation therapy has ended, and continue to use it for as long as you want.

Supportive care

Supportive care provides help with additional needs, such as:

- Making treatment decisions
- Coordinating your care
- Paying for care
- Planning for advance care and end of life

Some health care professionals refer to palliative care as supportive care. They think these types of care are alike or overlap. Others think there are important differences, but both help people with cancer to live as well as they can. Your cancer center may have palliative care specialists, who can give you additional support and help coordinate your supportive care needs.

Your doctor may suggest hospice care. Hospice care can help with the physical and emotional needs of ovarian cancer.

Read more about the types of support you may receive in *NCCN Guidelines for Patients: Palliative Care*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Platinum-resistant cancer

Ovarian cancer is considered platinum-resistant if it:

- Doesn't improve or worsens during platinum-based chemotherapy, or
- Returns less than 6 months after successful treatment with platinum-based chemotherapy.

Because platinum-based chemotherapy didn't improve your cancer, a different type of treatment for recurrence is typically recommended. Non-platinum chemotherapy is usually given first. Another preferred option is bevacizumab (Avastin). This may also be added to your chemotherapy.

Other options may include endocrine therapy, targeted therapy, or immunotherapy. Enrolling in a clinical trial is encouraged if you're eligible.



Hypersensitivity reactions

With repeat use of carboplatin or cisplatin, you are at increased risk of a hypersensitivity (allergic) reaction. Below are some questions to ask your care team about this risk:

- ✓ How likely is it that I will have an allergic reaction to chemotherapy?
- ✓ How will I know? What are the symptoms?
- ✓ Does the staff on hand know how to manage allergic reactions, and will the right medical equipment be available?

Clinical trials

A clinical trial is a type of medical research study. After being developed and tested in a lab, potential new ways of fighting cancer need to be studied in people.

If found to be safe and effective in a clinical trial, a drug, device, or treatment approach may be approved by the U.S. FDA.

Everyone with cancer should carefully consider all of the treatment options available for their cancer type, including standard treatments and clinical trials. Talk to your doctor about whether a clinical trial may make sense for you.

Phases

Most cancer clinical trials focus on treatment and are done in phases.

- **Phase 1** trials study the safety and side effects of an investigational drug or treatment approach.
- **Phase 2** trials study how well the drug or approach works against a specific type of cancer.
- **Phase 3** trials test the drug or approach against a standard treatment. If the results are good, it may be approved by the FDA.
- **Phase 4** trials study the safety and benefit of an FDA-approved treatment.

Who can enroll?

It depends on the clinical trial's rules, called eligibility criteria. The rules may be about age, cancer type and stage, treatment history, or general health. They ensure that participants are alike in specific ways and that the trial is as safe as possible for the participants.



Finding a clinical trial

In the United States

NCCN Cancer Centers
NCCN.org/cancercenters

The National Cancer Institute (NCI)
cancer.gov/about-cancer/treatment/clinical-trials/search

Worldwide

Ovarian Cancer Research Alliance (OCRA)
ocra.careboxhealth.com

The U.S. National Library of Medicine (NLM)
clinicaltrials.gov

Need help finding a clinical trial?

NCI's Cancer Information Service (CIS)
1.800.4.CANCER (1.800.422.6237)
cancer.gov/contact

Informed consent

Clinical trials are managed by a research team. This group of experts will review the study with you in detail, including its purpose and the risks and benefits of joining. All of this information is also provided in an informed consent form. Read the form carefully and ask questions before signing it. Take time to discuss it with people you trust. Keep in mind that you can leave and seek treatment outside of the clinical trial at any time.

Will I get a placebo?

Placebos (inactive versions of real medicines) are almost never used alone in cancer clinical trials. It is common to receive either a placebo with a standard treatment, or a new drug with a standard treatment. You will be informed, verbally and in writing, if a placebo is part of a clinical trial before you enroll.

Are clinical trials free?

There is no fee to enroll in a clinical trial. The study sponsor pays for research-related costs, including the study drug. But you may need to pay for other services, like transportation or childcare, due to extra appointments. During the trial, you will continue to receive standard cancer care. This care is often covered by insurance.



Let us know what you think!

Please take a moment to complete an online survey about the NCCN Guidelines for Patients.
NCCN.org/patients/response

Key points

- If most or all of the cancer can be removed, and you're well enough to have major surgery, total hysterectomy with bilateral salpingo-oophorectomy (BSO) is often the primary (first) treatment. Platinum-based chemotherapy is typically given after surgery to kill any remaining cancer cells. Bevacizumab (Avastin) may be included in the chemotherapy regimen.
- Another approach involves chemotherapy first to shrink the tumor (neoadjuvant chemotherapy), followed by surgery to remove any residual cancer and perform hysterectomy with BSO. In this approach, chemotherapy is also given after surgery (adjuvant chemotherapy).
- Fertility-sparing surgery may be an option for common tumor types, but only in very select cases. It's typically only considered for cancers that haven't spread at all outside the ovary.
- Ovarian cancer is staged during surgery to remove the cancer. This is called surgical staging. The surgical (also called pathological) stage provides the most accurate picture of how far the cancer has spread. It's used to guide treatment after surgery.
- Maintenance therapy is recommended for many stage 2, 3, and 4 cancers that respond well to initial treatment. PARP inhibitors work best in cancers that have a *BRCA* mutation or that are HRD-positive. If it was included in chemotherapy, bevacizumab may be given alone or with a PARP inhibitor for maintenance therapy.
- If not already performed, tumor biomarker testing is recommended for everyone with recurrent ovarian cancer. Biomarkers are unique features of the tumor that can help guide treatment.
- Clinical trials provide access to investigational treatments that may, in time, be approved by the FDA.

Questions to ask

- Am I a candidate for fertility-sparing surgery?
- Do I need maintenance therapy?
- What are the side effects of PARP inhibitors?
- Should I consider a clinical trial? Do you know of one I can join?

4

Treatment for less common ovarian cancers

42 Carcinosarcoma

43 Clear cell carcinoma

43 Small cell carcinoma (hypercalcemic type)

43 Mucinous carcinoma

45 Grade 1 endometrioid carcinoma

45 Low-grade serous carcinoma

47 Ovarian serous borderline epithelial tumors

48 Malignant germ cell tumors

51 Malignant sex cord-stromal tumors

53 Key points

53 Questions to ask

Less common ovarian cancers are often diagnosed during a surgery or other procedure. Treatment for these rare cancers is often individualized. When possible, receiving treatment as part of a clinical trial is strongly recommended.

Less common ovarian cancers can start in the epithelium, in tissues that support the ovaries, or in the reproductive (egg) cells of the ovary. If not already done, you may have surgery first to remove any remaining cancer or to stage the cancer.

If receiving treatment as part of a clinical trial isn't an option, treatment for less common ovarian cancers should be individualized.

Carcinosarcoma

Carcinosarcomas are an aggressive type of ovarian tumor. Fertility-sparing surgery isn't advised for these tumors, regardless of your age or the cancer stage. Carcinosarcomas are also known as malignant mixed Müllerian tumors (MMMTs).

Carcinosarcomas are treated with platinum-based chemotherapy. The preferred regimen for **all stages** is paclitaxel and carboplatin given every 3 weeks. For stage 2, 3, or 4 tumors, bevacizumab (Avastin) may be included with your chemotherapy. If so, it will likely be continued as maintenance therapy.

When chemotherapy is over, follow-up care will begin for stage 1 tumors. For stage 2, 3 or 4 tumors with a *BRCA* mutation, maintenance therapy may follow chemotherapy.

For information on follow-up care and recurrence, see page 34.

"Be your own advocate. Ask a lot of questions, even the ones you are afraid to ask. Talk to someone who can relate to your experience."



Clear cell carcinoma

Clear cell carcinomas are the most common of the less common ovarian cancers. They are considered high-grade (fast-growing) tumors.

Because most clear cell carcinomas don't have estrogen receptors, endocrine therapy generally isn't helpful against these cancers.

Treatment

Platinum-based chemotherapy is recommended for most clear cell carcinomas. For some stage 1 cancers, observation may be an option.

The preferred chemotherapy regimen for **all stages** is paclitaxel and carboplatin given every 3 weeks. For stage 2, 3, or 4 tumors, bevacizumab (Avastin) may be included with your chemotherapy. If so, you'll likely continue to receive it alone as maintenance therapy.

When chemotherapy is over, follow-up care will begin for stage 1 tumors. For stage 2, 3, or 4 tumors with a *BRCA* mutation, maintenance therapy may follow chemotherapy.

For information on follow-up care and recurrence, see page 34.

Small cell carcinoma (hypercalcemic type)

Small cell ovarian carcinoma of hypercalcemic type (SCCOHT) is an extremely rare and fast-growing cancer. SCCOHT is usually diagnosed (found) in early adulthood.

These tumors are usually caused by acquired changes or inherited differences in a gene called *SMARCA4*. For this reason, genetic testing of your blood or saliva for inherited differences in the *SMARCA4* gene is recommended.

If you're newly diagnosed and a good candidate for surgery, treatment for stages 1A through 3 involves hysterectomy with bilateral salpingo-oophorectomy (BSO). After surgery, or if you aren't a candidate for surgery, chemotherapy is recommended as your primary (main) treatment.

The VPCBAE regimen is currently preferred for primary therapy. It includes vinblastine, cisplatin, cyclophosphamide, bleomycin, doxorubicin, and etoposide. If the tumor shrinks as a result of systemic therapy, hysterectomy with BSO is recommended.

Mucinous carcinoma

Mucinous tumors are often diagnosed at an earlier age than more common ovarian cancers. These tumors can grow so large that they fill the abdomen and pelvis. Most people have early-stage disease at the time of diagnosis.

In addition to blood tests measuring carcinoembryonic antigen (CEA) and cancer antigen (CA) 19-9, testing often involves a check of your gastrointestinal (GI) tract. The goal is to confirm whether the tumor is a true mucinous ovarian cancer, or a gastrointestinal cancer that has spread to your ovaries.

If the tumor wasn't fully removed during prior surgery, surgery to remove the remaining

cancer may be performed before any treatment is given. This also allows for complete surgical staging to learn the full extent of the cancer.

Some **stage 1** mucinous tumors can be observed without treatment. For others, chemotherapy is recommended. This depends, in part, on how the tumor cells look when viewed under a microscope. If chemotherapy is planned for a stage 1 mucinous tumor, preferred regimens are listed in **Guide 2**.

Chemotherapy is recommended for all stage 2, 3, and 4 mucinous tumors. See **Guide 2**.

For information on follow-up care and recurrence, see page 34.

Following surgery, high-dose chemotherapy with hematopoietic cell transplant (HCT) may be an option to try to cure the cancer. If your doctor thinks a cure is possible, they will refer you to a specialized care center for a consultation about this treatment option.

When treatment is complete, surveillance imaging to check for recurrence involves PET/CT scanning of the area from your neck to upper legs.

PET/CT is recommended every 3 to 6 months for 2 years, and then once per year after that.

Guide 2
Mucinous tumors – preferred options for chemotherapy

Stage 1	• Capecitabine, Oxaliplatin • Carboplatin, Paclitaxel every 3 weeks • Fluorouracil (5-FU), Leucovorin, Oxaliplatin
Stages 2, 3, and 4	• Fluorouracil (5-FU), Leucovorin, Oxaliplatin (and possibly Bevacizumab) • Capecitabine, Oxaliplatin (and possibly Bevacizumab) • Carboplatin, Paclitaxel every 3 weeks • Carboplatin, Paclitaxel, Bevacizumab, and maintenance Bevacizumab

Things to keep in mind:

- These regimens change from time to time as new information becomes available.
- Only **preferred** options for chemotherapy are listed in this Guide. If these are unavailable or aren't an option for you, your care team will suggest one of several other recommended regimens not listed here.

Grade 1 endometrioid carcinoma

Testing for a biomarker (feature) called mismatch repair deficiency (dMMR) or microsatellite instability (MSI-H) is recommended for all grade 1 endometrioid carcinomas.

It's safe to monitor the earliest stages of grade 1 endometrioid carcinoma (1A and 1B) without treatment. While observation is an option for stage 1C tumors, most are treated with chemotherapy or endocrine therapy.

Treatment with either chemotherapy or endocrine therapy is recommended for stage 2, 3, and 4 tumors. See **Guide 3**.

For information on follow-up care and recurrence, see page 34.

Low-grade serous carcinoma

Low-grade serous carcinoma is usually found at an earlier age than the more common high-grade serous carcinoma.

Following surgery, it's safe to monitor the earliest stages of low-grade serous carcinoma (1A and 1B) without treatment. While observation is an option for stage 1C tumors, most are treated with chemotherapy or endocrine therapy.

Treatment with either chemotherapy or endocrine therapy is recommended for stage 2, 3, and 4 tumors. See **Guide 3**.

Monitoring for recurrence

When treatment is over, follow-up visits are recommended every 2 to 4 months for the first

Guide 3
Preferred therapies for grade 1 endometrioid and low-grade serous tumors

Preferred options for stages 1C, 2, 3, and 4:

- Carboplatin, Paclitaxel every 3 weeks – may be followed by maintenance therapy with an aromatase inhibitor, a gonadotropin-releasing hormone (GnRH or LHRH) agonist, or Tamoxifen
- Aromatase inhibitor therapy – options include Anastrozole, Exemestane, Letrozole

Additional preferred option for stage 2, 3, and 4 tumors:

- Carboplatin, Paclitaxel, Bevacizumab (Avastin) followed by maintenance Bevacizumab

Things to keep in mind:

- These regimens change from time to time as new information becomes available.
- Only **preferred** options for chemotherapy are listed in this Guide. If these are unavailable or aren't an option for you, your care team will suggest one of several other recommended regimens not listed here.

2 years, then every 3 to 6 months for 3 years. After year 5, they are scheduled once a year.

Blood tests, imaging, and physical exams (including a pelvic exam) are done as needed. If CA-125 or other tumor markers were high before treatment, they will be monitored after treatment.

Biomarker testing

If not yet performed, your tumor should be tested for the following biomarkers (unique features) that may have available targeted therapies:

- HER2 status
- PD-L1 expression
- *BRCA1/2* mutation
- Homologous recombination deficiency (HRD)
- dMMR/MSI-H
- Tumor mutational burden (TMB)
- *BRAF* mutation
- *KRAS* mutation
- FRα (FOLR1) expression
- *RET* gene fusion
- *NTRK1/2/3* gene fusion

Recurrence

If the cancer returns, your options for treatment may include:

- Endocrine therapy
- Chemotherapies in **Guide 3**, if not already received
- Targeted therapy or immunotherapy

Observing the cancer without treatment may also be an option.

Ovarian serous borderline epithelial tumors

Serous borderline epithelial tumors are also called low malignant potential (LMP) tumors. These slow-growing tumors have cancer-like features, but don't invade other tissues like most cancers do.

Compared to more invasive types of ovarian cancer, people diagnosed with a borderline epithelial tumor tend to be younger and often have stage 1 disease.

Surgery is the main treatment for serous borderline tumors. Fertility-sparing surgery is often an option in addition to standard surgery. A gynecologic oncologist should be involved in deciding your options for surgery.

Prior incomplete surgery

If the cancer wasn't fully removed or fully staged during a prior surgery, the surgery is considered incomplete. In this case, another surgery is recommended (if possible).

If you want the option of becoming pregnant, removing only the ovary with cancer and its fallopian tube, along with any remaining visible cancer, may be an option. For some, removing both ovaries and fallopian tubes but keeping the uterus intact may be an option.

If you don't desire pregnancy, **completion surgery** is performed. This involves removing the uterus and the remaining ovary and fallopian tube. The surgeon will also remove any remaining cancer. They may or may not remove lymph nodes for testing.

After surgery (fertility sparing or completion), the pathology team will test the removed tissues. Sometimes the tumor type changes as a result of this testing. If the final results confirm that it's borderline, follow-up care is described next.

Prior complete surgery

If the cancer was completely resected and no low-grade serous carcinoma was found, observation is recommended.

If low-grade serous carcinoma was found, treatment for this tumor type is recommended.

Follow-up

Physical exams, which may include a pelvic exam, are recommended every 3 to 12 months for the first 5 years after treatment.

If any tumor marker levels were high at diagnosis, they will be checked at your follow-up visits. Other blood tests and imaging are performed as needed.

After fertility-sparing surgery, you may have ultrasounds to catch recurrence early. Talk to your doctor about completion surgery after childbearing is finished.

Relapse

If the cancer returns after treatment, debulking surgery to remove all visible cancer is recommended when possible. If the tumor type changes as a result of surgery, treatment based on the updated tumor type is recommended.

Malignant germ cell tumors

Although very rare overall, germ cell tumors are the most common type of ovarian cancer diagnosed in people 16 to 20 years of age.

These non-epithelial tumors are usually diagnosed at the earliest stage and have excellent treatment outcomes.

Types of germ cell tumors include:

- Dysgerminomas
- Immature teratomas
- Embryonal tumors
- Endodermal sinus (yolk sac) tumors

The following tumor markers tend to be found in higher-than-normal amounts in people with a malignant germ cell tumor:

- Alpha-fetoprotein (AFP)
- Beta-human chorionic gonadotropin (β-hCG)
- Lactate dehydrogenase (LDH)

Fertility-sparing surgery

If you want the option of becoming pregnant naturally after treatment, fertility-sparing surgery is recommended. The cancer can be any stage. Full surgical staging is performed at the same time.

Surveillance after fertility-sparing surgery involves having ultrasounds on a regular basis. When childbearing is finished, talk to your doctor about completion surgery.

Completion surgery

If becoming pregnant isn't possible, or isn't a priority for you, completion surgery with full surgical staging is recommended.

Malignant germ cell tumors are staged with the same system used for common ovarian cancers. In children or adolescents with early-stage germ cell tumors, full surgical staging may be skipped.

Will I need chemotherapy after surgery?

Most likely. In adults, chemotherapy is recommended after surgery for the following types of germ cell tumors:

- Embryonal tumor – any stage
- Endodermal sinus tumor/yolk sac tumor – any stage
- Dysgerminoma – stage 2, 3, or 4
- Immature teratoma – stage 1, grade 2 or 3
- Immature teratoma – stage 2, 3, or 4
- Nongestational choriocarcinoma – any stage

Other germ cell tumors don't need chemotherapy after surgery. Surveillance without treatment is recommended for the following types of germ cell tumors:

- Stage 1 dysgerminoma
- Stage 1, grade 1 immature teratoma

In children and adolescents, decisions about chemotherapy versus observation may be different from those described above. For example, both observation and chemotherapy are typically considered for children and adolescents with one the following tumor types:

- Dysgerminoma – stage 1A, 1B
- Immature teratoma – stage 1A, grade 1
- Embryonal carcinomas – stage 1A
- Yolk sac tumors – stage 1A

If you're making care decisions on behalf of a child or adolescent, you are strongly encouraged to meet with a pediatric oncologist before finalizing the treatment plan. They can explain the possible risks and benefits of each treatment option.

Which chemotherapy regimen do you recommend for me?

For tumors that need chemotherapy, 3 to 4 cycles of the **BEP regimen** (bleomycin, etoposide, cisplatin) is preferred. Bleomycin can damage the lungs. Expect to have tests to check how well your lungs work before chemotherapy starts. If you can't have bleomycin, your team will discuss other recommended options with you.

After chemotherapy, imaging will be ordered to see how the cancer responded. If you have a complete response to chemotherapy, expect to have follow-up checks every 2 to 4 months for 2 years.

If the levels of AFP and beta-HCG were high originally, these tumor markers will also be checked with blood tests. See **Guide 4**.

Residual or recurrent disease

Sometimes the tumor doesn't go away completely with treatment. This is called residual disease. Or the tumor may return after treatment. This is called recurrent disease.

If the tumor can still be seen on imaging tests after surgery and chemotherapy, and tumor marker levels are normal, your doctor may suggest surgery to remove what's left of the tumor. Observation with imaging is also an option.

If surgery is planned, next steps depend on the results of surgery. If all of the cancer could not be removed, your doctor may recommend 2 more cycles of platinum-based chemotherapy.

For people with confirmed cancer (either residual or recurrent) after first-line chemotherapy and abnormal tumor markers (AFP and/or β-hCG), options to try to cure the cancer include:

- TIP chemotherapy (paclitaxel + ifosfamide + cisplatin)
- High-dose chemotherapy with hematopoietic cell transplant (HCT)

For some people, a hematopoietic cell transplant will cure the cancer. If your doctor thinks a cure is possible, you should be referred to a specialized care center for a consultation about high-dose chemotherapy and stem cell rescue. The specific high-dose chemotherapy regimens used vary between cancer centers.

If treatment with TIP or high-dose chemotherapy isn't possible or desired, palliative chemotherapy is an option. The goal is to control the growth and spread of the cancer, which can help prevent or lessen symptoms caused by the tumor. If your cancer has a targetable biomarker, immunotherapy with a checkpoint inhibitor may also be an option. Talk to your care team about which option may be right for you.

Radiation therapy targeting the tumor area can help relieve symptoms caused by the cancer.

Also keep in mind that receiving only supportive care without other treatment is always an option.

Guide 4
Surveillance for malignant germ cell tumors

	Year 1	Year 2	Year 3	Years 4 to 5	After 5 years
Clinical evaluation (physical exam)	Every 3 months	Every 3 months	Every 6 months	Every 12 months	Every 12 months
Pelvic ultrasound (if you still have an ovary)	Every 3 months	Every 3 months	Every 6 months		
Blood test to check tumor marker levels	Every 2 months	Every 3 months	Every 6 months	Every 12 months	Every 12 months for up to 10 years
Chest x-ray				Every 6 months	As needed
CT or MRI of your chest, abdomen, and pelvis	Every 3 months	Every 3 months	Every 6 to 12 months	As needed	As needed

Malignant sex cord-stromal tumors

Malignant sex cord-stromal tumors are nonepithelial. These rare tumor types include:

- Granulosa cell tumors (more common)
- Sertoli-Leydig cell tumors

The prognosis (outlook) for both types is good. For the more common granulosa cell tumors, most people diagnosed have a small, slow-growing tumor.

Surgical staging

Surgery to stage the cancer is recommended for malignant sex cord-stromal tumors. Surgical staging for these tumors generally doesn't include removing nearby lymph nodes.

If fertility is desired and the cancer hasn't spread outside the ovary, fertility-sparing surgery with full staging is an option instead. If this is planned, talk to your doctor about having completion surgery after childbearing is finished. Completion surgery removes the uterus and the remaining ovary and fallopian tube.

Malignant sex cord stromal tumors are staged with the same system used for common ovarian cancers. Your next steps of care depend on the cancer stage, as determined by surgery.

Stage 1 tumors

After surgery, low-risk stage 1 tumors can be safely observed without treatment. For stage 1 tumors at increased risk of recurrence, your doctor may recommend either observation or platinum-based chemotherapy.

Stage 2, 3, or 4 tumors

Treatment with chemotherapy is typically recommended for people with a stage 2, 3, or 4 sex cord-stromal tumor. If there is a limited amount of cancer in the body, treatment with radiation therapy may be an option.

Surveillance

Granulosa cell tumors can return decades after treatment. Long-term surveillance is recommended.

Physical exams are given as needed based on the cancer stage. For early-stage and low-risk cancers, exams are given once or twice a year. For high-risk disease, exams are given more often (about every 4 to 6 months).

Sex cord-stromal tumors, especially granulosa cell tumors, can make a protein called inhibin. If the level of inhibin in your blood was high at the time of diagnosis, your doctor may continue to check it after treatment. If the level goes up, it could be a sign of relapse. Keep in mind that a blood test alone cannot confirm that the cancer has returned.

Testing for CA-125 and other tumor markers is individualized. If your doctor recommends it, how often the testing is needed is also based on stage. Blood tests may be ordered once or twice a year if the cancer is early stage and low risk. For high-risk disease, testing may be ordered every 4 to 6 months.

Imaging isn't needed on a regular basis after treatment. It may be ordered if you develop cancer symptoms, if tumor marker levels are high, or if there are concerns about physical exam findings.

Relapse

A relapse (also called recurrence) is the return of cancer after being cancer free. When possible, enrolling in a clinical trial for treatment is encouraged. Ask your care team about available trials you may be eligible to join.

Most people with sex cord-stromal tumors receive chemotherapy for a relapse. The regimen **preferred** at this time is paclitaxel and carboplatin. There are other recommended options that your provider may suggest.

Endocrine therapy is also an option for treating relapse. If this is planned instead of chemotherapy, options include:

- Aromatase inhibitors (anastrozole, exemestane, letrozole)
- Leuprolide or goserelin acetate (for granulosa cell tumors)
- Tamoxifen

Your doctor may suggest another surgery to remove as much of the cancer as possible. Radiation therapy targeting the tumor area can help relieve symptoms caused by the cancer.

Keep in mind that receiving only supportive care without other treatment is always an option.

Supportive care resources

More information on supportive care is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Key points

- Less common ovarian cancers are often diagnosed during a surgery or other procedure.
- If not already done, you may have surgery first to remove any remaining cancer and to stage the cancer.
- Receiving treatment as part of a clinical trial is strongly recommended if there's an open trial you're eligible for.
- If a clinical trial isn't an option, treatment for these rare cancers is individualized and often involves chemotherapy.
- Supportive care is available for everyone with cancer, whether you're receiving other treatment or not.

Questions to ask

- What type of rare ovarian cancer do I have?
- Is my cancer type hereditary?
- How do I find clinical trials that I can participate in?



Take our survey and help make the NCCN Guidelines for Patients better for everyone!

NCCN.org/patients/comments

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Survivorship

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Survivorship begins on the day you learn you have ovarian cancer. It focuses on the physical, emotional, and financial issues unique to cancer survivors. For many survivors, the end of treatment can be a time of celebration but also of anxiety. It's normal to need support adjusting to seeing your care team less often.

Your primary care provider

After finishing cancer treatment, your oncologist and primary care provider should work together to make sure you get needed follow-up care.

Ask your oncologist for a survivorship care plan. Ideally, the plan will include:

- A summary of your cancer treatment history
- A description of possible late- and long-term side effects
- Recommendations for monitoring for the return of cancer
- Recommendations for your overall health and well-being

Survivorship

Staying active is an important part of survivorship. Try to exercise for at least 150 minutes per week. This will help you achieve or stay within a weight range recommended for your height and weight.



Anxiety and depression

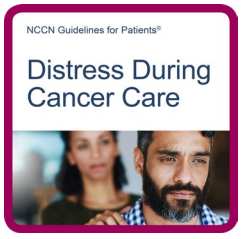
Many people with cancer have symptoms of distress, such as anxiety and depression. You may feel anxious during testing, or you may experience depression during a hard part of treatment. Tell your treatment team so you can get help.

Help can include support groups, talk therapy, or medication. Cancer navigators, social workers, and other experts at your cancer center can help. Some people also feel better by exercising, talking with friends or loved ones, or relaxing.

Distress thermometer

NCCN has a quick-and-easy tool that helps people with cancer tell their care team about their concerns. This screening tool is called the NCCN Distress Thermometer and Problem List. The Problem List includes many areas of concern, including social and practical ones, that you can check off.

The NCCN Distress Thermometer and Problem List can be found in *NCCN Guidelines for Patients: Distress During Cancer Care*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Support groups

Many people diagnosed with cancer find support groups to be helpful. Support groups often include people at different stages of treatment. Some people may be newly diagnosed, while others may be finished with treatment.

Paying for care

Cancer survivors face a unique financial burden. Paying for doctor visits, tests, and treatments can become unmanageable, especially for those with little or no health insurance. You may also have costs not directly related to treatment, such as travel expenses and the cost of childcare.

The term financial toxicity is used to describe the problems patients face related to the cost of medical care. Financial toxicity can affect your quality of life and access to needed health care.

If you need help paying for cancer care, financial assistance may be available. Talk with a patient navigator, your care team's social worker, and your hospital's financial services department.

Healthy habits for cancer survivors



Follow recommendations from your oncologist and your primary care provider for screening for other cancers based on your age and risk level.



Get other recommended health care for your age, such as blood pressure checks, hepatitis C screening, and immunizations (like the flu shot).



Eat a diet rich in plant-based foods. Limit red meat and processed foods. Ask your provider for a referral to a cancer nutritionist.



Alcohol can increase the risk of some cancers. Drink little to no alcohol.



Move more, rest less. Try to exercise at a moderate intensity for at least 150 minutes per week.



Maintain a healthy weight. Tracking your weight, diet, calories, and activity levels may help you meet your goals.

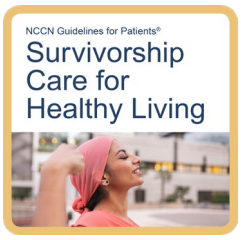


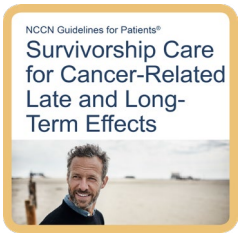
Stop using tobacco. Ask your care team about options to help you quit. Counseling and medication are often options.

More information

For more information on cancer survivorship, the following are available at NCCN.org/patientguidelines:

- *Survivorship Care for Healthy Living*
- *Survivorship Care for Cancer-Related Late and Long-Term Effects*





Key points

- Survivorship focuses on the physical, emotional, and financial issues unique to cancer survivors.
- Survivorship care is improved if your oncologist and primary care provider work together to get the long-term care you need.
- A survivorship care plan is helpful in transitioning your care to your primary care doctor.
- Healthy habits play a key role in helping to prevent other diseases and second cancers.
- If you have concerns about paying for your cancer care, financial help may be available.

Questions to ask

- Will you give me a survivorship care plan?
- Does this treatment center have a survivorship care program?
- What can I expect during a survivorship care visit?

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Other resources

60 What else to know

60 What else to do

60 Where to get help

61 Questions to ask

Want to learn more? Here's how you can get additional help.

What else to know

This guide helps you know your options so you can make informed decisions and improve your cancer care. But it's not the only resource that you have.

Ask for as much information and help as you need. Many people are interested in learning more about:

- The details of their treatment and its side effects
- Being a part of a care team
- Getting financial help
- Finding a cancer care professional who's an expert in their field
- Coping with other health problems

What else to do

Your health care center can help you with next steps. It often has on-site resources to help meet your needs and find answers to your questions. Health care centers can also inform you of resources in your community.

In addition to help from your providers, the resources listed in the next section provide support for many people like yourself.

Where to get help

Look through the list below and visit the provided websites to learn more about these organizations.

Bone Marrow & Cancer Foundation
bonemarrow.org

Cancer*Care*
cancercare.org

Cancer Hope Network
cancerhopenetwork.org

FORCE: Facing Our Risk of Cancer Empowered
facingourrisk.org

GRACE
cancergrace.org

Imerman Angels
imermanangels.org

My Faulty Gene
myfaultygene.org

National Ovarian Cancer Coalition (NOCC)
ovarian.org

Ovarcome
ovarcome.org

Ovarian Cancer Research Alliance (OCRA)
ocrahope.org

Patient Advocate Foundation
patientadvocate.org

Sharsheret
sharsheret.org

Triage Cancer
triagecancer.org

Unite for HER
uniteforher.org

Questions to ask

- Who can I talk to about help with housing, food, and other basic needs?
- What help is available for transportation, childcare, and home care?
- Are there other services available to me and my caregivers?



We want your feedback!

Our goal is to provide helpful and easy-to-understand information on cancer. Take our survey to let us know what we got right and what we could do better.
NCCN.org/patients/feedback



Words to know

adjuvant chemotherapy
Chemotherapy given after surgery.

ascites
Abnormal fluid buildup in the belly (abdomen) or pelvis.

bilateral salpingo-oophorectomy (BSO)
Surgery to remove both ovaries and both fallopian tubes.

biomarker
A unique feature of a cancer or tumor that can be targeted for treatment with systemic therapy.

***BRCA1* and *BRCA2* genes**
Genes involved in DNA repair. Abnormal changes (mutations) in either of these genes increases the risk of developing breast and ovarian cancer.

cancer antigen-125 (CA-125)
A substance that may be found in high amounts in the blood of patients with ovarian cancer.

cancer grade
A rating of how abnormal the cancer cells look under a microscope. High-grade cancers grow and spread more quickly than low-grade cancers.

cancer stage
A rating of the growth and spread of cancer in the body, as determined by surgery.

capsule
The thin layer of tissue that surrounds the ovaries.

cervix
The lower part of the uterus that connects to the vagina.

chemotherapy
Drugs that kill fast-growing cells throughout the body, including normal cells and cancer cells.

clear cell carcinoma of the ovary
A rare type of epithelial ovarian cancer in which the insides of the cells look clear when viewed under a microscope.

clinical stage
The pre-treatment stage of a cancer. The clinical stage provides a best guess of how far the cancer has spread.

clinical trial
Research on an investigational test or treatment to assess its safety or how well it works.

debulking surgery
Surgery to remove as much cancer as possible. Also called cytoreductive surgery.

endocrine therapy
Treatment that adds, blocks, or removes hormones. The goal is to help slow ovarian cancer growth. It may be used for persistent or recurrent ovarian cancer, most often for low-grade tumors. Also called anti-estrogen therapy.

endometrioid carcinoma of the ovary
A type of epithelial ovarian cancer. Grade 2 and 3 endometrioid tumors are common. Grade 1 endometrioid tumors are less common ovarian cancers.

epithelial ovarian cancer
The most common type of ovarian cancer. While typically found in the outer surface of the ovaries (the epithelium), many start in the fallopian tubes.

fallopian tube
A thin tube through which an egg travels from the ovary to the uterus.

fertility-sparing surgery
Surgery that removes 1 ovary and the attached fallopian tube.

genetic counseling
A discussion with a health expert about the risk for a disease caused by changes in genes.

genetic testing
Testing of the blood or saliva for germline (inherited) gene variants that cause ovarian cancer. Recommended for everyone diagnosed with ovarian cancer.

germline mutation
A gene difference passed from a parent to their biological child(ren).

gynecologic oncologist
A surgeon who is an expert in cancers that start in the female reproductive organs. They can also give chemotherapy. A gynecologic oncologist should perform ovarian cancer surgery.

hereditary ovarian cancer
Ovarian cancer caused by germline (inherited) gene differences passed down from parent to child.

homologous recombination deficiency (HRD)
A feature of some ovarian cancers that may help guide treatment. *BRCA* mutations are one form of HRD. The cancer can also be HRD positive without a *BRCA* mutation.

hyperthermic intraperitoneal chemotherapy (HIPEC)
A cancer treatment that involves filling the abdominal cavity with warmed chemotherapy drugs.

hysterectomy
Surgery to remove the uterus.

implant
Cancer cells that broke away from the first tumor and formed new tumors on the surface of nearby organs and tissues.

intraperitoneal (IP) chemotherapy
Chemotherapy drugs given directly into the belly (abdomen) through a small tube.

less common ovarian cancers (LCOCs)
Rare types of ovarian cancer, including carcinosarcoma; clear cell carcinoma; mucinous neoplasms; and grade 1 endometrioid, low-grade serous, borderline epithelial, malignant sex-cord stromal, and malignant germ cell tumors.

low malignant potential (LMP) tumor
A less common ovarian cancer that is slow growing and doesn't invade other tissue. Also called a borderline epithelial tumor.

lymph nodes
Small groups of special disease-fighting cells located throughout the body.

Lynch syndrome
Abnormal changes in genes that increase the chances of developing colon, rectal, endometrial, ovarian, and other cancers.

maintenance therapy
Treatment given to continue (maintain) good results of prior treatment.

medical oncologist
A doctor who is an expert in treating cancer with drugs such as chemotherapy.

metastasis
The spread of cancer cells from the first tumor to another body part.

microscopic metastases
Cancer cells that have spread from the first tumor to another body part and are too small to be seen with the naked eye.

mismatch repair deficiency (dMMR)/ microsatellite instability-high (MSI-H)
A biomarker (feature) of some ovarian cancers used to guide treatment. All grade 1 endometrioid tumors should be tested for this biomarker.

mucinous carcinoma of the ovary
One of 4 types of epithelial cancer. A less common ovarian cancer.

neoadjuvant chemotherapy
Chemotherapy given before surgery.

omentum
The layer of fatty tissue that covers organs in the belly (abdomen).

ovary
One of a pair of organs that make hormones and eggs for reproduction.

pathologist
A doctor who is an expert in testing cells and tissue to find disease.

peripheral neuropathy
A nerve problem that causes pain, tingling, and numbness in the hands and feet.

peritoneum
The layer of tissue that lines the inside of the belly (abdomen) and pelvis and covers most of the organs inside.

platinum-based chemotherapy
Treatment with 2 or more chemotherapy drugs and the main drug is made with platinum. Such drugs include cisplatin and carboplatin.

platinum-resistant
When cancer drugs made with platinum, such as cisplatin and carboplatin, do not work well against the cancer.

platinum-sensitive
When cancer drugs made with platinum, such as cisplatin and carboplatin, work well against the cancer.

PARP inhibitor
A type of oral targeted therapy used for maintenance therapy in some ovarian cancers.

relapse
The return of cancer after treatment. Also called a recurrence.

serous
A type of epithelial ovarian cancer. Grade 2 and 3 (high-grade) serous tumors are the most common ovarian cancers. Grade 1 (low-grade) serous tumors are less common ovarian cancers.

somatic mutation
A non-hereditary change found in a cancer. Also called acquired mutation.

supportive care
Treatment given to relieve the symptoms of a disease. Also called palliative care.

surgical menopause
The onset of menopause caused by surgery. Caused by a sudden drop in estrogen in the body.

surgical stage
The extent of a cancer, as determined by surgery. Also called the pathological stage.

systemic therapy
Treatment with drugs that enter the bloodstream. Chemotherapy, targeted therapy, and immunotherapy are examples.

targeted therapy
Treatment with drugs that target a specific or unique feature of cancer cells.

taxane
A type of chemotherapy. A taxane is often paired with a platinum chemotherapy to treat ovarian cancer.

tumor marker
A substance found in body tissue or fluid that may be a sign of cancer. CA-125 is an ovarian cancer tumor marker.

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This patient guide is based on the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Ovarian Cancer, Version 4.2026. It was adapted, reviewed, and published with help from the following people:

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