Ovarian Cancer Early Detection, Diagnosis, and Staging

Detection and Diagnosis

Catching cancer early often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that is not always the case.

- Can Ovarian Cancer Be Found Early?
- Signs and Symptoms of Ovarian Cancer
- Tests for Ovarian Cancer

Stages and Outlook (Prognosis)

After a cancer diagnosis, staging provides important information about the extent of cancer in the body and anticipated response to treatment.

- Ovarian Cancer Stages
- Survival Rates for Ovarian Cancer, by Stage

Questions to Ask About Ovarian Cancer

Here are some questions you can ask your cancer care team to help you better understand your cancer diagnosis and treatment options.

- What Should You Ask Your Doctor About Ovarian Cancer?

Can Ovarian Cancer Be Found Early?

About 20% of ovarian cancers are found at an early stage. When ovarian cancer is found early at a localized stage, about 94% of patients live longer than 5 years after
diagnosis. Several large studies are in progress to learn the best ways to find ovarian cancer in its earliest stage.

**Ways to find ovarian cancer early**

**Regular women's health exams**

During a pelvic exam, the health care professional feels the ovaries and uterus for size, shape, and consistency. A pelvic exam can be useful because it can find some reproductive system cancers at an early stage, but most early ovarian tumors are difficult or impossible for even the most skilled examiner to feel. Pelvic exams may, however, help identify other cancers or gynecologic conditions. Women should discuss the need for these exams with their doctor.

The Pap test is effective in early detection of cervical cancer, but it isn't a test for ovarian cancer. Rarely, ovarian cancers are found through Pap tests, but usually they are at an advanced stage.

**See a doctor if you have symptoms**

Early cancers of the ovaries often cause no symptoms. When ovarian cancer causes symptoms, they tend to be symptoms that are more commonly caused by other things. These symptoms include abdominal swelling or bloating (due to a mass or a buildup of fluid), pelvic pressure or abdominal pain, difficulty eating or feeling full quickly, and/or urinary symptoms (having to go urgently or often). Most of these symptoms can also be caused by other less serious conditions. These symptoms can be more severe when they are caused by ovarian cancer, but that isn't always true. What is most important is that they are a change from how a woman usually feels.

By the time ovarian cancer is considered as a possible cause of these symptoms, it usually has already spread beyond the ovaries. Also, some types of ovarian cancer can rapidly spread to the surface of nearby organs. Still, prompt attention to symptoms may improve the odds of early diagnosis and successful treatment. If you have symptoms similar to those of ovarian cancer almost daily for more than a few weeks, and they can't be explained by other more common conditions, report them to your health care professional -- preferably a gynecologist -- right away.

**Screening tests for ovarian cancer**

Screening tests and exams are used to detect a disease, like cancer, in people who
don’t have any symptoms. Perhaps the best example of this is the mammogram, which can often detect breast cancer in its earliest stage, even before a doctor can feel the cancer. There has been a lot of research to develop a screening test for ovarian cancer, but there hasn’t been much success so far. The 2 tests used most often to screen for ovarian cancer are transvaginal ultrasound (TVUS) and the CA-125 blood test.

TVUS is a test that uses sound waves to look at the uterus, fallopian tubes, and ovaries by putting an ultrasound wand into the vagina. It can help find a mass (tumor) in the ovary, but it can’t actually tell if a mass is cancer or benign. When it is used for screening, most of the masses found are not cancer.

CA-125 is a protein in the blood. In many women with ovarian cancer, levels of CA-125 are high. This test can be useful as a tumor marker to help guide treatment in women known to have ovarian cancer, because a high level often goes down if treatment is working.

But checking CA-125 levels has not been found to be as useful as a screening test for ovarian cancer. The problem with using this test for screening is that common conditions other than cancer can also cause high levels of CA-125. In women who have not been diagnosed with cancer, a high CA-125 level is more often caused by one of these other conditions and not ovarian cancer. Also, not everyone who has ovarian cancer has a high CA-125 level. When someone who is not known to have ovarian cancer has an abnormal CA-125 level, the doctor might repeat the test (to make sure the result is correct). The doctor could also consider ordering a transvaginal ultrasound test.

In studies of women at average risk of ovarian cancer, using TVUS and CA-125 for screening led to more testing and sometimes more surgeries, but did not lower the number of deaths caused by ovarian cancer. For that reason, no major medical or professional organization recommends the routine use of TVUS or the CA-125 blood test to screen for ovarian cancer.

Some organizations state that these tests may be offered to screen women who have a high risk of ovarian cancer due to an inherited genetic syndrome (discussed in the section Do We Know What Causes Ovarian Cancer?). Still, even in these women, it’s not clear that using these tests for screening lowers their chances of dying from ovarian cancer.

Better ways to screen for ovarian cancer are being researched. Hopefully, improvements in screening tests will eventually lead to a lower ovarian cancer death rate.
There are no recommended screening tests for germ cell tumors or stromal tumors. Some germ cell cancers release certain protein markers such as human chorionic gonadotropin (HCG) and alpha-fetoprotein (AFP) into the blood. After these tumors have been treated by surgery and chemotherapy, blood tests for these markers can be used to see if treatment is working and to determine if the cancer is coming back.

Researchers continue to look for new tests to help diagnose ovarian cancer early but currently there are no reliable screening tests.

- References
See all references for Ovarian Cancer

Last Medical Review: August 5, 2014 Last Revised: February 4, 2016

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy.

**Signs and Symptoms of Ovarian Cancer**

Ovarian cancer may cause several signs and symptoms. Women are more likely to have symptoms if the disease has spread beyond the ovaries, but even early-stage ovarian cancer can cause them. The most common symptoms include:

- Bloating
- Pelvic or abdominal pain
- Trouble eating or feeling full quickly
- Urinary symptoms such as urgency (always feeling like you have to go) or frequency (having to go often)

These symptoms are also commonly caused by benign (non-cancerous) diseases and by cancers of other organs. When they are caused by ovarian cancer, they tend to be persistent and represent a change from normal for example, they occur more often or are more severe. If a woman has these symptoms more than 12 times a month, she should see her doctor, preferably a gynecologist.

Others symptoms of ovarian cancer can include:

- Fatigue
• Upset stomach
• Back pain
• Pain during sex
• Constipation
• Menstrual changes
• Abdominal swelling with weight loss

However, these symptoms are more likely to be caused by other conditions, and most of them occur just about as often in women who don’t have ovarian cancer.

• References

See all references for Ovarian Cancer

Tests for Ovarian Cancer

If you have symptoms that might be due to ovarian cancer, you should see your doctor, who will examine you and may order some tests.

Physical exam

Your doctor will first take your history and do a physical exam to look for signs of ovarian cancer. These include an enlarged ovary (on a pelvic exam) and signs of fluid in the abdomen (which is called ascites).

If there is reason to suspect you have ovarian cancer based on your symptoms and/or physical exam, your doctor will order some tests to check further.

Consultation with a specialist

If the results of your pelvic exam or other tests suggest that you have ovarian cancer, you will need a doctor or surgeon who specializes in treating women with this type of
cancer. A gynecologic oncologist is an obstetrician/gynecologist who is specially trained in treating cancers of the female reproductive system. Treatment by a gynecologic oncologist helps ensure that you get the best kind of surgery for your cancer. It has also has been shown to help patients with ovarian cancer live longer. Anyone suspected of having ovarian cancer should see this type of specialist before having surgery.

Imaging tests

Imaging tests like computed tomography (CT) scans, magnetic resonance imaging (MRI) scans, and ultrasound studies can confirm whether a pelvic mass is present. These studies cannot confirm that the mass is a cancer, but they may be useful if your doctor is looking to see if ovarian cancer has spread (metastasized) to other tissues and organs.

Ultrasound

Ultrasound (ultrasonography) is the use of sound waves to create an image on a video screen. Sound waves are released from a small probe placed in the woman’s vagina or on the surface of her abdomen. The sound waves create echoes as they enter the ovaries and other organs. The same probe detects the echoes that bounce back, and a computer translates the pattern of echoes into a picture.

Ultrasound is often the first test done if a problem with the ovaries is suspected. It can be useful finding an ovarian tumor and seeing if it is a solid mass (tumor) or a fluid-filled cyst. It can also be used to get a better look at the ovary to see how big it is and how it looks inside (the internal appearance or complexity). These factors help the doctor decide which masses or cysts are more worrisome.

Computed tomography (CT) scans

The CT scan is an x-ray test that produces detailed cross-sectional images of your body. Instead of taking one picture, like a conventional x-ray, a CT scanner takes many pictures as it rotates around you. A computer then combines these pictures into an image of a slice of your body. The machine will take pictures of multiple slices of the part of your body that is being studied.

A CT scanner has been described as a large donut, with a narrow table in the middle opening. You will need to lie still on the table while the scan is being done. CT scans take longer than regular x-rays, and you might feel a bit confined by the ring while the pictures are being taken.
CT scans do not show small ovarian tumors well, but they can see larger tumors, and may be able to see if the tumor is growing into nearby structures. A CT scan may also find enlarged lymph nodes, signs of cancer spread to liver or other organs, or signs that an ovarian tumor is affecting your kidneys or bladder.

You may be asked to drink 1 to 2 pints of a liquid before the CT scan called oral contrast. You might also receive an IV (intravenous) line through which a different kind of contrast dye is injected. Contrast dyes help better outline structures in your body.

The injection can cause some flushing (redness and warm feeling that may last hours to days). A few people are allergic to the dye and get hives. Rarely, more serious reactions like trouble breathing and low blood pressure can occur. Medicine can be given to prevent and treat allergic reactions. Be sure to tell the doctor if you have ever had a reaction to any contrast material used for imaging tests.

CT scans are not usually used to biopsy (see biopsy in the section "Other tests") an ovarian tumor, but they can be used to biopsy a suspected metastasis. For this procedure, called a CT-guided needle biopsy, the patient stays on the CT scanning table, while a radiologist moves a biopsy needle toward the location of the mass. CT scans are repeated until the doctors are confident that the needle is within the mass. A fine needle biopsy sample (tiny fragment of tissue) or a core needle biopsy sample (a thin cylinder of tissue about ½ inch long and less than 1/8 inch in diameter) is removed and examined under a microscope.

**Barium enema x-ray**

This is a test to see if the cancer has invaded the colon (large intestine) or rectum (it is also used to look for colorectal cancer). After taking laxatives the day before, barium sulfate, a chalky substance, is put into the rectum and colon and x-rays are taken. Because x-rays don’t penetrate (go through) barium, the colon and rectum are outlined on the x-rays. This test is rarely used now in women with ovarian cancer. Colonoscopy may be done instead.

**Magnetic resonance imaging (MRI) scans**

MRI scans use radio waves and strong magnets instead of x-rays. The energy from the radio waves is absorbed and then released in a pattern formed by the type of tissue and by certain diseases. A computer translates the pattern of radio waves given off by the tissues into a very detailed image of parts of the body. Not only does this produce cross-sectional slices of the body like a CT scanner, it can also produce slices that are parallel with the length of the body. A contrast material might be injected into a vein
(same as with a CT scan). MRI scans are not used often to look for ovarian cancer.

MRI scans are particularly helpful to examine the brain and spinal cord. MRI scans take longer than CT scans, -- often up to 30 minutes or more. Also, you have to be placed inside a tube, which is confining and can upset people with claustrophobia (fear of enclosed spaces). The machine also makes a thumping noise that you may find disturbing. Some places will provide headphones with music to block the sound.

**Chest x-ray**

This test may be done to determine whether ovarian cancer has spread (metastasized) to the lungs. This spread may cause one or more tumors in the lungs and more often causes fluid to collect around the lungs. This fluid, called a *pleural effusion*, can be seen with chest x-rays as well as other types of scans.

**Positron emission tomography (PET) scan**

For a [PET scan](https://example.com), radioactive glucose (sugar) is given to look for the cancer. Because cancers use glucose at a higher rate than normal tissues, the radioactivity will tend to concentrate in the cancer. A scanner can spot the radioactive deposits. This test can be helpful in spotting small collections of cancer cells. In some instances this test has proved useful in finding ovarian cancer that has spread. It is even more valuable when combined with a CT scan (PET/CT scan). PET scans can help find cancer when it has spread, but they are expensive and are not always covered by insurance when they are used to look for ovarian cancer.

**Other tests**

**Laparoscopy**

This procedure uses a thin, lighted tube through which a doctor can look at the ovaries and other pelvic organs and tissues in the area. The tube is inserted through a small incision (cut) in the lower abdomen and sends the images of the pelvis or abdomen to a video monitor. Laparoscopy provides a view of organs that can help plan surgery or other treatments and can help doctors confirm the *stage* (how far the tumor has spread) of the cancer. Also, doctors can manipulate small instruments through the laparoscopic incision(s) to perform biopsies.

**Colonoscopy**
A **colonoscopy** is a way to examine the inside of the large intestine (colon). Before this test can be done, the colon and rectum must be cleaned out to remove any stool. This often means drinking a large amount (2 to 4 quarts) of a liquid laxative the night before and the morning of the procedure, and spending hours in the bathroom. Just before the procedure, the patient is given intravenous (IV) medicine to make him or her relaxed or even asleep (sedation). Then a colonoscope (a long, flexible, tube with a light and video camera on the end) is inserted through the rectum and into the colon. The images are sent to a video monitor. Any abnormal areas seen can be biopsied. Because sedation is used for this procedure, patients need someone they know to take them home afterwards (not just a cab). This procedure is more commonly used to look for colorectal cancer.

**Biopsy**

The only way to determine for certain if a growth is cancer is to remove a sample of the growth from the suspicious area and examine it under a microscope. This procedure is called a **biopsy**. For ovarian cancer, the biopsy is most commonly done by removing the tumor.

In rare cases, a suspected ovarian cancer may be biopsied during a laparoscopy procedure or with a needle placed directly into the tumor through the skin of the abdomen. Usually the needle will be guided by either ultrasound or CT scan. This is only used in patients who cannot have surgery because of advanced cancer or some other serious medical condition, because there is concern that a biopsy could spread the cancer.

In patients with ascites (fluid buildup inside the abdomen), samples of the fluid can also be used to diagnose the cancer. In this procedure, called **paracentesis**, the skin of the abdomen is numbed and a needle attached to a syringe is passed through the abdominal wall into the fluid in the abdominal cavity. Ultrasound may be used to guide the needle. The fluid is sucked up into the syringe and then sent for analysis to see if it contains cancer cells.

In all these procedures, the tissue or fluid obtained is sent to the laboratory. There it is examined under the microscope by a **pathologist**, a doctor who specialize in diagnosing and classifying diseases by examining cells under a microscope and using other lab tests.

**Blood tests**

Your doctor will order blood count tests to make sure you have enough red blood cells,
white blood cells and platelets (cells that help stop bleeding). There will also be tests to measure your kidney and liver function as well as your general health status. Finally the doctor will order a CA-125 test. Women who have a high CA-125 level are often referred to a gynecologic oncologist, but any woman with suspected ovarian cancer should see a gynecologic oncologist, as well.

Some germ cell cancers can cause elevated blood levels of the tumor markers human chorionic gonadotropin (HCG), alpha-fetoprotein (AFP), and/or lactate dehydrogenase (LDH). These may be checked if your doctor suspects that your ovarian tumor could be a germ cell tumor.

Some ovarian stromal tumors cause the blood levels of a substance called inhibin and hormones such as estrogen and testosterone to go up. These levels may be checked if your doctor suspects that you have this type of tumor.

**Genetic counseling and testing if you have ovarian cancer**

If you have been diagnosed with an epithelial ovarian cancer, your doctor will likely recommend that you get genetic counseling to help you decide if you should be tested for certain inherited gene changes, such as a mutation in the BRCA1 or BRCA2 gene. Some ovarian cancers are linked to mutations in these or other genes.

A genetic counselor or other qualified medical professional can help you understand the pros, cons, and possible limits of what genetic testing can tell you. This can help you decide if testing is right for you.

Genetic testing to look for inherited mutations can be helpful in several ways:

- If you are found to have a gene mutation, you might be more likely to get other types of cancer as well, so you might benefit from doing what you can to lower your risk of these cancers, as well as having tests to find them early.
- If you have a gene mutation, your family members (blood relatives) might also have it, so they can decide if they want to be tested to learn more about their cancer risk.
- If you have a BRCA1 or BRCA2 mutation, at some point you might benefit from treatment with targeted drugs called PARP inhibitors.

To learn more about some of the pros and cons of genetic testing, see [Should I Get Genetic Testing for Cancer Risk?](#)
Ovarian Cancer Stages

After a woman is diagnosed with ovarian cancer, doctors will try to figure out if it has spread, and if so, how far. This process is called staging. The stage of a cancer describes how much cancer is in the body. It helps determine how serious the cancer is and how best to treat it. Doctors also use a cancer's stage when talking about survival statistics.

Ovarian cancer stages range from stage I (1) through IV (4). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means cancer has spread more. Although each person's cancer experience is unique, cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

One of the goals of surgery for ovarian cancer is to take tissue samples for diagnosis and staging. To stage the cancer, samples of tissues are taken from different parts of the pelvis and abdomen and examined in the lab.

How is the stage determined?

The 2 systems used for staging ovarian cancer, the FIGO (International Federation of Gynecology and Obstetrics) system and the AJCC (American Joint Committee on Cancer) TNM staging system are basically the same.

They both use 3 factors to stage (classify) this cancer:

- The extent (size) of the tumor (T): Has the cancer spread outside the ovary or fallopian tube? Has the cancer reached nearby pelvic organs like the uterus or bladder?
• The spread to nearby lymph nodes (N): Has the cancer spread to the lymph nodes in the pelvis or around the aorta (the main artery that runs from the heart down along the back of the abdomen and pelvis)? Also called para-aortic lymph nodes.
• The spread (metastasis) to distant sites (M): Has the cancer spread to fluid around the lungs (malignant pleural effusion) or to distant organs such as the liver or bones?

Numbers or letters after T, N, and M provide more details about each of these factors. Higher numbers mean the cancer is more advanced. Once a person’s T, N, and M categories have been determined, this information is combined in a process called stage grouping to assign an overall stage.

The staging system in the table below uses the pathologic stage (also called the surgical stage). It is determined by examining tissue removed during an operation. This is also known as surgical staging. Sometimes, if surgery is not possible right away, the cancer will be given a clinical stage instead. This is based on the results of a physical exam, biopsy, and imaging tests done before surgery. For more information see Cancer Staging.

The system described below is the most recent AJCC system effective January 2018. It is the staging system for ovarian cancer, fallopian tube cancer, and primary peritoneal cancer.

Cancer staging can be complex, so ask your doctor to explain it to you in a way you understand.

<table>
<thead>
<tr>
<th>AJCC Stage</th>
<th>Stage grouping</th>
<th>FIGO Stage</th>
<th>Stage description*</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>T1 N0 M0</td>
<td>I</td>
<td>The cancer is only in the ovary (or ovaries) or fallopian tube(s) (T1). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IA</td>
<td>T1a N0 M0</td>
<td>IA</td>
<td>The cancer is in one ovary, and the tumor is confined to the inside of the ovary; or the cancer is in in one fallopian tube, and is only inside the fallopian tube. There is no cancer on the outer surfaces of the ovary or fallopian tube. No cancer cells are found in the fluid (ascites) or washings from the abdomen and pelvis (T1a). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IB</td>
<td>T1b N0 M0</td>
<td>IB</td>
<td>The cancer is in both ovaries or fallopian tubes but not on their outer surfaces. No cancer cells are found in the fluid (ascites) or washings from the abdomen and pelvis (T1b). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IC</td>
<td>T1c</td>
<td>IC</td>
<td>The cancer is in one or both ovaries or fallopian tubes and any of the</td>
</tr>
</tbody>
</table>
The tissue (capsule) surrounding the tumor broke during surgery, which could allow cancer cells to leak into the abdomen and pelvis (called **surgical spill**). This is stage **IC1**.
- Cancer is on the outer surface of at least one of the ovaries or fallopian tubes or the capsule (tissue surrounding the tumor) has ruptured (burst) before surgery (which could allow cancer cells to spill into the abdomen and pelvis). This is stage **IC2**.
- Cancer cells are found in the fluid (ascites) or washings from the abdomen and pelvis. This is stage **IC3**.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Tumor Characteristics</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>II</td>
<td>T2 N0 M0</td>
<td>The cancer is in one or both ovaries or fallopian tubes and has spread to other organs (such as the uterus, bladder, the sigmoid colon, or the rectum) within the pelvis or there is primary peritoneal cancer (T2). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IIA</td>
<td>T2a N0 M0</td>
<td>The cancer has spread to or has invaded (grown into) the uterus or the fallopian tubes, or the ovaries. (T2a). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IIB</td>
<td>T2b N0 M0</td>
<td>The cancer is on the outer surface of or has grown into other nearby pelvic organs such as the bladder, the sigmoid colon, or the rectum (T2b). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IIIA1</td>
<td>T1 or T2 N1 M0</td>
<td>The cancer is in one or both ovaries or fallopian tubes, or there is primary peritoneal cancer (T1) and it may have spread or grown into nearby organs in the pelvis (T2). It has spread to the retroperitoneal (pelvic and/or para-aortic) lymph nodes only. It has not spread to distant sites (M0).</td>
</tr>
<tr>
<td>IIIA2</td>
<td>T3a N0 or N1 M0</td>
<td>The cancer is in one or both ovaries or fallopian tubes, or there is primary peritoneal cancer and it has spread or grown into organs outside the pelvis. During surgery, no cancer is visible in the abdomen (outside of the pelvis) to the naked eye, but tiny deposits of cancer are found in the lining of the abdomen when it is examined in the lab (T3a). The cancer might or might not have spread to retroperitoneal lymph nodes (N0 or N1), but it has not spread to distant sites (M0).</td>
</tr>
<tr>
<td>IIIB</td>
<td>T3b N0 or N1 M0</td>
<td>There is cancer in one or both ovaries or fallopian tubes, or there is primary peritoneal cancer and it has spread or grown into organs outside the pelvis. The deposits of cancer are large enough for the surgeon to see, but are no bigger than 2 cm (about 3/4 inch) across. (T3b). It may or may not have spread to the retroperitoneal lymph nodes (N0</td>
</tr>
<tr>
<td>Stage</td>
<td>T Category</td>
<td>N Category</td>
</tr>
<tr>
<td>-------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>IIIC</td>
<td>T3c N0 or N1 M0</td>
<td>IIIC</td>
</tr>
<tr>
<td>IVA</td>
<td>Any T Any N M1a</td>
<td>IVA</td>
</tr>
<tr>
<td>IVB</td>
<td>Any T Any N M1b</td>
<td>IVB</td>
</tr>
</tbody>
</table>

* The T categories are described in the table above, except for: **TX**: Main tumor cannot be assessed due to lack of information and **T0**: No evidence of a primary tumor. The N categories are described in the table above, except for: **NX**: Regional lymph nodes cannot be assessed due to lack of information.

**References**


[See all references for Ovarian Cancer](#)

Last Medical Review: December 18, 2017 Last Revised: December 18, 2017

American Cancer Society medical information is copyrighted material. For reprint requests, please see our [Content Usage Policy](#).
Survival Rates for Ovarian Cancer, by Stage

Survival rates are often used by doctors as a standard way of discussing a person's prognosis (outlook). Some patients with cancer may want to know the survival statistics for people in similar situations, while others may not find the numbers helpful, or may even not want to know them. If you decide that you don't want to know them, stop reading here and skip to the next section.

The 5-year survival rate refers to the percentage of patients who live at least 5 years after their cancer is diagnosed. Of course, many people live much longer than 5 years (and even are cured).

Five-year relative survival rates assume that some people will die of other causes and compare the observed survival with that expected for people without the cancer. This is a more accurate way to see the impact of the cancer on survival.

In order to get 5-year survival rates, doctors have to look at people who were treated at least 5 years ago. Improvements in treatment since then may result in a more favorable outlook for people now being diagnosed with ovarian cancer.

Survival rates are often based on previous outcomes of large numbers of people who had the disease, but they cannot predict what will happen in any individual's case. Many other factors can affect a person's outlook, such as their general health, the grade of the cancer, the treatment received, and how well the cancer responds to treatment. Your doctor can tell you how the numbers below apply to you, as he or she is familiar with the aspects of your situation.

For all types of ovarian cancer, the 5-year relative survival is 45%. Women diagnosed when they are younger than 65 do better than older women. If ovarian cancer is found (and treated) before the cancer has spread outside the ovary (stages IA and IB), the 5-year relative survival rate is 92%. However, only 15% of all ovarian cancers are found at this early stage.

The survival rates given below are for the different types of ovarian cancer. They come from the National Cancer Institute, SEER Data Base and are based on patients diagnosed from 2004 to 2010. The most recent FIGO staging system came out in January of 2014, and so statistics for survival based on that staging are not yet available. These numbers are based on a previous version of the staging system, which had different and fewer substages.
### Invasive epithelial ovarian cancer

<table>
<thead>
<tr>
<th>Stage</th>
<th>Relative 5-Year Survival Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>90%</td>
</tr>
<tr>
<td>IA</td>
<td>94%</td>
</tr>
<tr>
<td>IB</td>
<td>92%</td>
</tr>
<tr>
<td>IC</td>
<td>85%</td>
</tr>
<tr>
<td>II</td>
<td>70%</td>
</tr>
<tr>
<td>IIA</td>
<td>78%</td>
</tr>
<tr>
<td>IIB</td>
<td>73%</td>
</tr>
<tr>
<td>III</td>
<td>39%</td>
</tr>
<tr>
<td>IIIA</td>
<td>59%</td>
</tr>
<tr>
<td>IIIB</td>
<td>52%</td>
</tr>
<tr>
<td>IIIC</td>
<td>39%</td>
</tr>
<tr>
<td>IV</td>
<td>17%</td>
</tr>
</tbody>
</table>

### Ovarian stromal tumors

<table>
<thead>
<tr>
<th>Stage</th>
<th>Relative 5-yr Survival Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>95%</td>
</tr>
<tr>
<td>II</td>
<td>78%</td>
</tr>
<tr>
<td>III</td>
<td>65%</td>
</tr>
<tr>
<td>IV</td>
<td>35%</td>
</tr>
</tbody>
</table>

### Germ cell tumors of the ovary

<table>
<thead>
<tr>
<th>Stage</th>
<th>Relative 5-yr Survival Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>98%</td>
</tr>
<tr>
<td>II</td>
<td>94%</td>
</tr>
<tr>
<td>III</td>
<td>87%</td>
</tr>
<tr>
<td>IV</td>
<td>69%</td>
</tr>
</tbody>
</table>

### Fallopian tube carcinoma

<table>
<thead>
<tr>
<th>Stage</th>
<th>Relative 5-yr Survival Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>87%</td>
</tr>
<tr>
<td>II</td>
<td>86%</td>
</tr>
</tbody>
</table>
What Should You Ask Your Doctor About Ovarian Cancer?

It is important for you to have honest, open discussions with your cancer care team. They want to answer all of your questions, no matter how trivial you might think they are. Here are some questions to consider:

- What type of ovarian cancer do I have?
- Has my cancer spread beyond the ovaries?
- What are the cell type, microscopic grade, and stage of my cancer? What does that mean?
- What treatments do you recommend for me? Why?
- What risks or side effects should I expect?
- What are the chances my cancer will recur (come back) with the treatments we have discussed?
- What should I do to be ready for treatment?
- Should I follow a special diet?
- Will I be able to have children after my treatment?
- What is my expected prognosis?
- Will I lose my hair?
- What do I tell my children, husband, parents, and other family members?

In addition to these sample questions, be sure to write down some of your own. For instance, you might want specific information about anticipated recovery times so that you can plan your work schedule. You may also want to ask about second opinions or about experimental programs or clinical trials for which you may qualify.