Endometrial Cancer Early Detection, Diagnosis, and Staging

Detection and Diagnosis

Finding cancer early, when it's small and hasn't spread, often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that's not always the case.

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

Stages and Outlook (Prognosis)

After a cancer diagnosis, staging provides important information about the amount of cancer in the body, the best treatment options, and the likely response to treatment.

- Endometrial Cancer Stages
- Survival Rates for Endometrial Cancer

Questions to Ask About Endometrial Cancer

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

- Questions to Ask About Endometrial Cancer
Can Endometrial Cancer Be Found Early?

The best way to find endometrial cancer when it's small (at an early stage) is to see a health care provider if you have any signs and symptoms of endometrial cancer, such as abnormal vaginal bleeding or discharge (that's getting worse, occurring between periods, or happening after menopause). Early detection improves the chances that the cancer will be treated successfully.

Most women with endometrial cancer have abnormal vaginal bleeding. Still, some endometrial cancers may reach an advanced stage before causing signs and symptoms. This means the cancer is big and may have spread before it causes any problems that are noticed.

Early detection tests for endometrial cancer

Early detection (also called screening) refers to the use of tests to find a disease, like cancer, in people who don't have symptoms of that disease. Early detection tests can help find some types of cancer at an early stage -- when it's small and hasn't spread beyond the place it started.

If you are at average risk

At this time, there are no screening tests or exams to find endometrial cancer early in women who are at average endometrial cancer risk and have no symptoms.

The American Cancer Society recommends that, at menopause, all women should be told about the risks and symptoms of endometrial cancer and strongly encouraged to report any vaginal bleeding, discharge, or spotting to their doctor.

Women should also talk to their doctors about getting regular pelvic exams. A pelvic exam can find some cancers, including some advanced uterine cancers, but it's not very useful for finding early endometrial cancers.

Screening tests used for cervical cancer, such as a Pap test or HPV (human papillomavirus) test aren't effective tests for endometrial cancer. The Pap test, which screens women for cervical cancer¹, can sometimes find some early endometrial cancers, but it's not a good test for this type of cancer. For information see Screening Tests for Cervical Cancer².
If you are at increased risk

The American Cancer Society recommends that most women at increased risk for endometrial cancer should be informed of their risk and be advised to see their doctor whenever they have any abnormal vaginal bleeding. This includes women whose risk is increased due to age, late menopause, never giving birth, infertility, obesity, diabetes, high blood pressure, estrogen treatment, or tamoxifen therapy.

Women who have (or may have) hereditary non-polyposis colon cancer (HNPCC, or Lynch syndrome) have a very high risk of endometrial cancer.

If several family members have had colon or endometrial cancer, consider getting genetic counseling to learn about your family’s risk of having HNPCC. If you (or a close relative) have genetic testing and are found to have a mutation in one of the genes for HNPCC, you are at high risk of getting endometrial cancer, as well as some other kinds of cancer. See Understanding Genetic Testing for more on this.

The American Cancer Society recommends that women who have (or may have) HNPCC be offered yearly testing for endometrial cancer with endometrial biopsy starting at age 35. Their doctors should discuss this test with them, including its risks, benefits, and limitations. This applies to women known to carry HNPCC-linked gene mutations, women who are likely to carry such a mutation (those with a mutation known to be present in the family), and women from families with a tendency to get colon cancer where genetic testing has not been done.

Another option for a woman who has (or may have) HNPCC is to have a hysterectomy once she is done having children. (See Can Endometrial Cancer Be Prevented?)

Hyperlinks

Signs and Symptoms of Endometrial Cancer

There are a few symptoms that may point to endometrial cancer. Some are more common as the cancer becomes advanced (grows and spreads).

Unusual vaginal bleeding, spotting, or other discharge

About 90% of women with endometrial cancer have abnormal vaginal bleeding. This might be a change in their periods, bleeding between periods, or bleeding after menopause. Non-cancer problems can also cause abnormal bleeding. But it's important to have a doctor check out any irregular bleeding right away. If you've gone through menopause, it's especially important to report any vaginal bleeding, spotting, or abnormal discharge to your doctor.

Non-bloody vaginal discharge may also be a sign of endometrial cancer. Even if you can't see blood in the discharge, it doesn't mean there's no cancer. Any abnormal discharge should be checked out by a doctor.

Pelvic pain, a mass, and weight loss

Pain in the pelvis, feeling a mass (tumor), and losing weight without trying can also be symptoms of endometrial cancer. These symptoms are more common in later stages of the disease. Still, any delay in seeking medical help may allow the disease to progress even further. This lowers the odds of treatment being successful.

Although any of these symptoms can be caused by things other than cancer, it's important to have them checked out by a doctor.
Hyperlinks


References


See all references for Endometrial Cancer ([www.cancer.org/cancer/endometrial-cancer/references.html](http://www.cancer.org/cancer/endometrial-cancer/references.html))

Tests for Endometrial Cancer

Endometrial cancer is most often diagnosed after a woman goes to her doctor because she has symptoms.

If there’s a possibility you could have endometrial cancer, you should be examined by a gynecologist. This is a doctor trained to diagnose and treat diseases of the female reproductive system. Gynecologists can diagnose endometrial cancer, and sometimes treat it. Specialists in treating cancers of the endometrium and other female reproductive organs are called gynecologic oncologists. These doctors treat all stages of endometrial cancer.

Medical history and physical exam
If you have any of the symptoms of endometrial cancer (see Signs and Symptoms of Endometrial Cancer), you should see a doctor right away. The doctor will ask about your symptoms, risk factors, and medical history. The doctor will also do a physical exam and a pelvic exam.

**Ultrasound**

Ultrasound is often one of the first tests used to look at the uterus, ovaries, and fallopian tubes in women with possible gynecologic problems. Ultrasound uses sound waves to take pictures of the inside of the body. A small wand (called a transducer or probe) gives off sound waves and picks up the echoes as they bounce off the organs. A computer translates the echoes into pictures.

For a pelvic ultrasound, the transducer is moved over the skin of the lower part of the belly (abdomen). Often, to get good pictures of the uterus, ovaries, and fallopian tubes, the bladder needs to be full. That’s why women getting a pelvic ultrasound are asked to drink lots of water before the test.

A transvaginal ultrasound (TVUS) is often better to look at the uterus. For this test, the TVUS probe (that works the same way as the ultrasound transducer) is put into the vagina. Images from the TVUS can be used to see if the uterus contains a mass (tumor), or if the endometrium is thicker than usual, which can be a sign of endometrial cancer. It may also help see if cancer is growing into the muscle layer of the uterus (myometrium).

A small tube may be used to put salt water (saline) into the uterus before the ultrasound. This helps the doctor see the uterine lining more clearly. This procedure is called a saline infusion sonogram or hysterosonogram. (Sonogram is another term for ultrasound.)

Ultrasound can be used to see endometrial polyps (growths), measure how thick the endometrium is, and can help doctors pinpoint the area they want to biopsy.

**Endometrial tissue sampling**

To find out exactly what kind of endometrial change is present, the doctor must take out some tissue so that it can be tested and looked at with a microscope. Endometrial tissue can be removed by endometrial biopsy or by dilation and curettage (D&C) with or without a hysteroscopy. A gynecologist usually does these procedures, which are described below.
Endometrial biopsy

An endometrial biopsy is the most commonly used test for endometrial cancer and is very accurate in postmenopausal women. It can be done in the doctor’s office. A very thin, flexible tube is put into the uterus through the cervix. Then, using suction, a small amount of endometrium is removed through the tube. The suctioning takes about a minute or less. The discomfort is a lot like menstrual cramps and can be helped by taking a nonsteroidal anti-inflammatory drug (like ibuprofen) before the procedure. Sometimes a thin needle is used to inject numbing medicine (local anesthetic) into the cervix just before the procedure to help reduce the pain.

Hysteroscopy

For this procedure, the doctor puts a tiny telescope (about $\frac{1}{6}$ inch in diameter) into the uterus through the cervix. To get a better view of the inside (lining) of the uterus, the uterus is filled with salt water (saline). This lets the doctor look for and biopsy anything abnormal, such as a cancer or a polyp. This is usually done using a local anesthesia (numbing medicine) while the patient is awake.

Dilation and curettage (D&C)

If the endometrial biopsy sample doesn’t provide enough tissue, or if the biopsy suggests cancer but the results are unclear, a D&C must be done. In this outpatient procedure, the opening of the cervix is enlarged (dilated) and a special instrument is used to scrape tissue from inside the uterus. This may be done with or without a hysteroscopy.

This procedure takes about an hour and may require general anesthesia (where drugs are used to put you into a deep sleep) or conscious sedation (drugs are put into a vein to make you drowsy) either with local anesthesia injected into the cervix or a spinal (or epidural). A D&C is usually done in an outpatient surgery area of a clinic or hospital. Most women have little discomfort after this procedure.

Testing endometrial tissue samples

Endometrial tissue samples removed by biopsy or D&C are looked at with a microscope to see if cancer is present. If cancer is found, the lab report will state what type of endometrial cancer it is (like endometrioid or clear cell) and what grade it is.

Endometrial cancer is graded on a scale of 1 to 3 based on how much it looks like normal endometrium. (See What Is Endometrial Cancer? Women with lower grade
cancers are less likely to have cancer in other part of their body and are less likely to have the cancer come back after treatment (recur).

**Testing for gene and protein changes in the cancer cells**

If the doctor suspects hereditary non-polyposis colon cancer\(^3\) (HNPCC) as an underlying cause of the endometrial cancer, the tumor cells can be tested for protein and gene changes. Examples of HNPCC-related changes include:

- Having fewer mismatch repair (MMR) proteins
- Defects in mismatch repair genes (dMMR)
- DNA changes (high levels of microsatellite instability, or MSI-H) that can happen when one of the genes that causes HNPCC is faulty

If these protein or DNA changes are present, the doctor may suggest genetic testing\(^4\) for the genes that cause HNPCC.

Testing the cancer cells for dMMR, MSI-H, and/or a high tumor mutational burden (TMB-H) might also be done to see if treatment with immunotherapy\(^5\) might be an option, especially for more advanced endometrial cancers.

**Tests to look for cancer spread**

If the doctor suspects that your cancer is advanced, you'll probably have to have other tests to look for cancer spread.

**Chest x-ray**

A plain x-ray\(^6\) of your chest may be done to see if cancer has spread to your lungs.

**Computed tomography (CT)**

The CT scan\(^7\) is an x-ray procedure that creates detailed, cross-sectional images of the inside of your body. For a CT scan, you lie on a table while X-rays are done. Instead of taking one picture, like a standard x-ray, a CT scanner takes many pictures as the camera rotates around you. A computer then combines these pictures into an image of a slice of your body. The machine will take pictures of many slices of the part of your body that's being studied.

CT scans are not used to diagnose endometrial cancer. But they can help see if the
cancer has spread to other organs and to see if it has come back after treatment.

**Magnetic resonance imaging (MRI)**

MRI scans\(^8\) 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 the inside of the body. This creates cross sectional slices of the body like a CT scanner and it also makes slices that are parallel with the length of your body.

MRI scans are very helpful for looking at the brain and spinal cord. Some doctors also think MRI is a good way to tell whether, and how far, the endometrial cancer has grown into the body of the uterus. MRI scans may also help find enlarged lymph nodes with a special technique that uses very tiny particles of iron oxide. These are given into a vein and settle into lymph nodes where they can be spotted by MRI.

**Positron emission tomography (PET)**

In this test radioactive glucose (sugar) is given to look for cancer cells. Because cancers use glucose (sugar) at a higher rate than normal tissues, the radioactivity will tend to collect in the cancer. A scanner can spot the radioactive deposits. This test can be helpful for spotting small collections of cancer cells. Special scanners combine a PET scan\(^9\) with a CT to more precisely locate areas of cancer spread. PET scans are not a routine part of the work-up of early endometrial cancer, but may be used for more advanced cases.

**Cystoscopy and proctoscopy**

If a woman has problems that suggest the cancer has spread to the bladder or rectum, the inside of these organs will probably be looked at through a lighted tube. In **cystoscopy** the tube is put into the bladder through the urethra. In **proctoscopy** the tube is put in the rectum. These exams allow the doctor to look for cancer. Small tissue samples can also be removed during these procedures for testing. They can be done using a local anesthetic but some patients may need general anesthesia. Your doctor will let you know what to expect before and after these tests. These procedures were used a lot in the past, but now are rarely part of the work up for endometrial cancer.

**Blood tests**
Complete blood count

The complete blood count (CBC) is a test that measures different cells in the blood, such as the red blood cells, the white blood cells, and the platelets. Endometrial cancer can cause bleeding, which can lead to low red blood cell counts (anemia).

CA-125 blood test

CA-125 is a substance released into the bloodstream by many, but not all, endometrial and ovarian cancers. If a woman has endometrial cancer, a very high blood CA-125 level suggests that the cancer has likely spread beyond the uterus. Some doctors check CA-125 levels before surgery or other treatment. If they're elevated, they can be checked again to see how well the treatment is working (levels will drop after surgery if all the cancer is removed).

CA-125 levels are not needed to diagnose endometrial cancer, so this test isn’t done on all patients.

Hyperlinks

8. [www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html)

References


See all references for Endometrial Cancer (www.cancer.org/cancer/endometrial-cancer/references.html)

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**Endometrial Cancer Stages**

After a woman is diagnosed with endometrial 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 the amount of cancer in the body. It helps determine how serious the cancer is and how best to treat it. The stage is one of the most important factors in deciding how to treat the cancer and determining how successful the treatment might be.

Endometrial 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 to other parts of the body. And within a stage, an earlier letter means a lower stage. Although each person’s cancer is unique, cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

How is the stage determined?

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

They both stage (classify) this cancer based on 3 factors:

- The extent (size) of the tumor (T): How far has the cancer grown into the uterus? Has the cancer reached nearby structures or organs?
- The spread to nearby lymph nodes (N): Has the cancer spread to the para-aortic lymph nodes? These are the lymph nodes in the pelvis or around the aorta (the main artery that runs from the heart down the back of the abdomen and pelvis).
- The spread (metastasis) to distant sites (M): Has the cancer spread to distant lymph nodes or distant organs in other parts of the body?

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. It’s found by examining tissue removed during an operation. This is also known as surgical staging. Sometimes, if surgery isn’t 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 details, see Cancer Staging.

The system described below is the most recent AJCC system. It went into effect
January 2018.

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

<table>
<thead>
<tr>
<th>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 growing inside the uterus. It may also be growing into the glands of the cervix, but not into the supporting connective tissue of the cervix (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 the endometrium (inner lining of the uterus) and may have grown less than halfway through the underlying muscle layer of the uterus (the myometrium) (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 has grown from the endometrium into the myometrium. It has grown more than halfway through the myometrium, but has not spread beyond the body of the uterus (T1b). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>II</td>
<td>T2 N0 M0</td>
<td>II</td>
<td>The cancer has spread from the body of the uterus and is growing into the supporting connective tissue of the cervix (called the cervical stroma). But it has not spread outside the uterus (T2). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>III</td>
<td>T3 N0 M0</td>
<td>III</td>
<td>The cancer has spread outside the uterus, but has not spread to the inner lining of the rectum or urinary bladder (T3). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>IIIA</td>
<td>T3a N0</td>
<td>IIIA</td>
<td>The cancer has spread to the outer surface of the uterus (called the serosa) and/or to the fallopian tubes or ovaries (the adnexa) (T3a). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).</td>
</tr>
<tr>
<td>Stage</td>
<td>T</td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>-------</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>IIIB</td>
<td>T3b</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>IIIC1</td>
<td>T1-T3</td>
<td>N1, N1mi or N1a</td>
<td>M0</td>
</tr>
<tr>
<td>IIIC2</td>
<td>T1-T3</td>
<td>N2, N2mi or N2a</td>
<td>M0</td>
</tr>
<tr>
<td>IVA</td>
<td>T4</td>
<td>Any N</td>
<td>M0</td>
</tr>
<tr>
<td>IVB</td>
<td>Any T</td>
<td>Any N</td>
<td>M1</td>
</tr>
</tbody>
</table>

*The following additional categories are not listed on the table above:

- **TX**: Main tumor cannot be assessed due to lack of information.
- **T0**: No evidence of a primary tumor.
- **NX**: Regional lymph nodes cannot be assessed due to lack of information.

**Hyperlinks**
Survival Rates for Endometrial Cancer

Survival rates can give you an idea of what percentage of people with the same type and stage of cancer are still alive a certain amount of time (usually 5 years) after they were diagnosed. They can’t tell you how long you will live, but they may help give you a better understanding of how likely it is that your treatment will be successful.

Keep in mind that survival rates are estimates and are often based on previous outcomes of large numbers of people who had a specific cancer, but they can’t predict what will happen in any particular person’s case. These statistics can be confusing and may lead you to have more questions. Your doctor is familiar with your situation; ask how these numbers may apply to you.

What is a 5-year relative survival rate?

References


See all references for Endometrial Cancer (www.cancer.org/cancer/endometrial-cancer/references.html)

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A relative survival rate compares women with the same type and stage of endometrial cancer to women in the overall population. For example, if the 5-year relative survival rate for a specific stage of endometrial cancer is 90%, it means that women who have that cancer are, on average, about 90% as likely as women who don’t have that cancer to live for at least 5 years after being diagnosed.

Where do these numbers come from?

The American Cancer Society relies on information from the SEER* database, maintained by the National Cancer Institute (NCI), to provide survival statistics for different types of cancer.

The SEER database tracks 5-year relative survival rates for endometrial cancer in the United States, based on how far the cancer has spread. The SEER database, however, does not group cancers by FIGO or AJCC TNM stages (stage 1, stage 2, stage 3, etc.). Instead, it groups cancers into localized, regional, and distant stages:

- **Localized**: There is no sign that the cancer has spread outside of the uterus.
- **Regional**: The cancer has spread from the uterus to nearby structures or lymph nodes.
- **Distant**: The cancer has spread to distant parts of the body such as the lungs, liver or bones.

### 5-year relative survival rates for endometrial cancer

(These numbers are based on people diagnosed with endometrial cancer between 2011 and 2017.)

<table>
<thead>
<tr>
<th>SEER Stage</th>
<th>5-year Relative Survival Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localized</td>
<td>96%</td>
</tr>
<tr>
<td>Regional</td>
<td>71%</td>
</tr>
<tr>
<td>Distant</td>
<td>20%</td>
</tr>
<tr>
<td>All SEER stages combined</td>
<td>84%</td>
</tr>
</tbody>
</table>

**Understanding the numbers**

- **These numbers apply only to the stage of the cancer when it is first diagnosed.** They do not apply later on if the cancer grows, spreads, or comes back after treatment.
These numbers don’t take everything into account. Survival rates are grouped based on how far the cancer has spread, but your age, overall health, how well the cancer responds to treatment, and other factors will also affect your outlook. Women now being diagnosed with endometrial cancer may have a better outlook than these numbers show. Treatments improve over time, and these numbers are based on women who were diagnosed and treated at least five years earlier.

*SEER= Surveillance, Epidemiology, and End Results

Questions to Ask About Endometrial Cancer

As you cope with cancer, you need to have honest, open talks with your doctor. You should feel free to ask any question, no matter how small it might seem. Nurses, social workers, and other members of your treatment team may also be able to answer many
of your questions. Here are some questions you might want to ask:

**When you’re told you have endometrial cancer**

- What type and grade of endometrial cancer\(^1\) do I have?
- Has my cancer spread outside the uterus?
- What is the stage of the cancer and what does that mean?

**When deciding on a treatment plan**

- What treatments\(^2\) might be right for me? What do you recommend? Why?
- Are there clinical trials\(^3\) that I should think about?
- What's the goal of treatment?
- How will you monitor my response to treatment?
- What should I do to be ready for treatment?
- What risks or side effects\(^4\) should I expect? (Ask about both short- and long-term side effects.)
- Will treatment affect my sex life?
- Will I be able to have children after treatment?
- What are the chances my cancer will come back (recur) with the treatments we have discussed?
- Will my health insurance cover treatment? How much will I have to pay?

**During treatment**

Once treatment starts, you’ll need to know what to expect and what to look for. Not all of these questions may apply to you, but asking the ones that do may be helpful.

- How will we know if the treatment is working?
- Is there anything I can do to help prevent or manage side effects?
- What symptoms or side effects should I tell you about right away?
- How can I reach you on nights, holidays, or weekends?
- Do I need to change what I eat during treatment?
- Are there any limits on what I can do?
- What kind of exercise should I do, and how often?
- Can I still take hormone replacement therapy?
How will I feel during treatment?

After treatment

- Are there any limits on what I can do?
- What symptoms should I watch for?
- What kind of exercise should I do now?
- What type of follow-up will I need after treatment?
- How often will I need to have follow-up exams and imaging tests?
- Will I need any blood tests?
- How will we know if the cancer has come back? What should I watch for?
- What will my options be if the cancer comes back?
- When can I go back to my usual activities at work and/or around the house?

Along with these sample questions, be sure to write down some of your own. For instance, you might want to ask about getting a second opinion⁵, or you may need specific information about how long it might take you to recover so you can plan your work schedule.

Doctors aren’t the only ones who can give you information. Other health care professionals, such as nurses and social workers, can answer a lot of your questions. To find out more about speaking with your health care team, see The Doctor-Patient Relationship⁶.

Hyperlinks


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