Endometrial 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 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 extent of cancer in the body and anticipated response to treatment.

- Endometrial Cancer Stages
- Endometrial Cancer Survival Rates, by Stage

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.

- What Should You Ask Your Health Care Team About Endometrial Cancer?

Can Endometrial Cancer Be Found Early?

In most cases, noticing any signs and symptoms of endometrial cancer, such as abnormal vaginal bleeding or discharge (that is increasing in amount, occurring between periods, or occurring after menopause), and reporting them right away to your doctor allows the disease to be diagnosed at an early stage. Early detection improves the chances that your cancer will be treated successfully. But some endometrial cancers may reach an advanced stage before signs and symptoms can be noticed. More information can be found in Signs and Symptoms of Endometrial Cancer.

Early detection tests

Early detection (also called screening) refers to the use of tests to find a disease such as cancer in people who do not have symptoms of that disease.

Women at average endometrial cancer 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 talk to their doctors about getting regular pelvic exams. A pelvic exam can find some cancers, including some advanced uterine cancers, but it is not very effective in finding early endometrial cancers.

The Pap test, which screens women for cervical cancer, can occasionally find some early endometrial cancers, but it's not a good test for this type of cancer. For information on screening tests for cervical cancer, see Cervical Cancer Prevention and Early Detection.

Women at increased endometrial cancer risk

The American Cancer Society recommends that most women at increased risk 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 of endometrial cancer is increased due to increasing 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,

sometimes called Lynch syndrome) have a very high risk of endometrial cancer. If several family members have had colon or endometrial cancer, you might want to think about having 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. See Understanding Genetic Testing for more on this topic.

The American Cancer Society recommends that women who have (or may have) HNPCC be offered yearly testing for endometrial cancer with endometrial biopsy beginning 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 would be to have a hysterectomy once she is done having children. This was discussed in Can Endometrial Cancer Be Prevented?

- References

See all references for Endometrial Cancer

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Signs and Symptoms of Endometrial Cancer

There are a few symptoms that may point to endometrial cancer, but some are more common as this cancer becomes advanced.

Unusual vaginal bleeding, spotting, or other discharge

About 90% of women diagnosed with endometrial cancer have abnormal vaginal bleeding, such as a change in their periods or bleeding between periods or after menopause. This symptom can also occur with some non-cancerous conditions, but it is important to have a doctor look into any irregular bleeding right away. If you have gone through menopause already, 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 cannot see blood in the discharge, it does not mean there is no cancer. In about 10% of cases, the discharge associated with endometrial cancer is not bloody. Any abnormal discharge should be checked out by your 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.

- References

See all references for Endometrial Cancer

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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, a doctor qualified to diagnose and treat diseases of the female

reproductive system. Gynecologists can diagnose endometrial cancer, as well as treat some early cases. Specialists in treating cancers of the endometrium and other female reproductive organs are called gynecologic oncologists. These doctors treat both early and advanced cases 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 your doctor. The doctor will ask about your symptoms, risk factors, and medical history. The doctor will also give you 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 a possible gynecologic problem. Ultrasound tests use sound waves to take pictures of parts of the body. A small instrument 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 placed on the skin of the lower part of the abdomen. Often, to get good pictures of the uterus, ovaries, and fallopian tubes, the bladder needs be full. That is why women getting a pelvic ultrasound are asked to drink lots of water before the exam.

A **transvaginal ultrasound**(TVUS) is often preferred for looking 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 a cancer is growing into the muscle layer of the uterus (myometrium).

Salt water (saline) may be put through a small tube into the uterus before the ultrasound so the doctor can see the uterine lining more clearly. This procedure is called a **saline infusion sonogram** or **hysterosonogram**. (sonogram is another term for ultrasound.) Sonography may help doctors pinpoint the area they want to biopsy if other procedures didn't detect a tumor.

Endometrial tissue sampling

To find out whether endometrial hyperplasia or endometrial cancer is present, the doctor must remove some tissue so that it can be looked at with a microscope. Endometrial tissue can be obtained by endometrial biopsy or by dilation and curettage (D&C) with or without a hysteroscopy. A specialist such as a gynecologist usually does these procedures, which are described below.

Endometrial biopsy

An endometrial biopsy is the most commonly performed test for endometrial cancer and is very accurate in postmenopausal women. It can be done in the doctor's office. In this procedure a very thin flexible tube is inserted 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 similar to menstrual cramps and can be helped by taking a nonsteroidal anti-inflammatory drug such as ibuprofen before the procedure. Sometimes numbing medicine (local anesthetic) is injected into the cervix just before the procedure to help reduce the pain.

Hysteroscopy

For this technique doctors insert a tiny telescope (about $^{1}/_{6}$ inch in diameter) into the uterus through the cervix. To get a better view of the inside of the uterus, the uterus is filled with salt water (saline). This lets the doctor see and biopsy anything abnormal, such as a cancer or a polyp. This is usually done using a local anesthesia (numbing medicine) with the patient 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 uncertain, 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 you are asleep) or conscious sedation (given medicine 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 whether 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. (This was detailed in What Is Endometrial Cancer?) Women with lower grade cancers are less likely to have advanced disease or recurrences.

If the doctor suspects hereditary non-polyposis colon cancer (HNPCC) as an underlying cause of the endometrial cancer, the tumor tissue can be tested for protein changes (such as having fewer mismatch repair proteins) or DNA changes (called microsatellite instability, or MSI) that can happen when one of the genes that causes HNPCC is faulty. If these protein or DNA changes are present, the doctor may recommend that you consider genetic testing for the genes that cause HNPCC. Testing for low mismatch repair protein levels or for MSI is most often ordered in women diagnosed with endometrial cancer at a younger than usual age or who have a family history of endometrial or colon cancer.

Tests to look for cancer spread

If the doctor suspects that your cancer is advanced, you will probably have to have other tests to look for cancer spread. For more information about these tests see the Exams and Tests for Cancer section on our website.

Chest x-ray

A plain x-ray of your chest may be done to see if cancer has spread to your lungs.

Computed tomography (CT)

The CT scan is an x-ray procedure that creates detailed, cross-sectional images of your body. For a CT scan, you lie on a table while an X-ray takes pictures. 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 is being studied.

CT scans are not used to diagnose endometrial cancer. However, they may be helpful to see whether the cancer has spread to other organs and to see if the cancer has come back after treatment.

Magnetic resonance imaging (MRI)

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. This creates cross sectional slices of the body like a CT scanner and it also produces slices that are parallel with the length of your body.

MRI scans are particularly helpful in 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 concentrate 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 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 placed into the bladder through the urethra. In *proctoscopy* the tube is placed in the rectum. These exams allow the doctor to look for possible cancers. Small tissue samples can also be removed during these procedures for pathologic (microscopic) testing. They can be done using a local anesthetic but some patients may require general anesthesia. Your doctor will let you know what to expect before and after the procedure. These procedures were used more often 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 the 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 probably spread beyond the uterus. Some doctors check CA-125 levels before surgery or other treatment. If they are elevated, they can be checked again to find out how well the treatment is working (for example, levels will drop after surgery if all the cancer is removed).

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

- References

See all references for Endometrial Cancer

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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 more. And within a stage, an earlier letter means a lower stage. 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.

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 **t**umor **(T):** How far has the cancer grown into the uterus? Has the cancer reached nearby structures or organs?
- The spread to nearby lymph **n**odes **(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 (**m**etastasis) to distant sites **(M):** Has the cancer spread to distant lymph nodes or distant organs?

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. 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. (Additional information of the TNM system also follows the stage table below.)

Stage	Stage grouping	FIGO Stage	Stage description*

I	T1 N0 M0	I	The cancer is growing within the body of 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).
IA	T1a N0 M0	IA	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).
IB	T1b N0 M0	IB	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).
II	T2 N0 M0	II	The cancer has spread from the body of the uterus and is growing forward into the supporting connective tissue of the cervix (called the cervical stroma). The cancer has not spread outside the uterus (T2). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
III	T3 N0 M0	III	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).
IIIA	T3a N0 M0	IIIA	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).
IIIB	T3b N0 M0	IIIB	The cancer has spread to the vagina or to the tissues around the uterus (the parametrium) (T3b). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
IIIC1	T1-T3 N1, N1mi or N1a M0	IIIC1	The cancer is growing in the body of the uterus. It may have spread to some nearby tissues, but is not growing into the inside of the bladder or rectum (T1 to T3). The cancer has spread to pelvic lymph nodes (N1, N1mi, or N1a), but not to lymph nodes around the aorta or distant sites (M0).
IIIC2	T1-T3 N2, N2mi or N2a M0	IIIC2	The cancer is growing in the body of the uterus. It may have spread to some nearby tissues, but is not growing into the inside of the bladder or rectum (T1 to T3). The cancer has spread to lymph nodes around the aorta (para-aortic lymph nodes) (N2, N2mi, or N2a) but not to distant sites (M0).
IVA	T4 Any N M0		The cancer has spread to the inner lining of the rectum or urinary bladder (called the mucosa) (T4). It may or may not have spread to nearby lymph nodes (Any N) but has not spread to distant sites (M0).
IVB	Any T Any N M1	IVB	The cancer has spread to inguinal (groin) lymph nodes, the upper abdomen, the omentum, or to organs away from the uterus, such as the lungs, liver, or bones (M1). The cancer can be any size (Any T) and it might or might not have spread to other lymph nodes (Any N).

*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.
- References

American Joint Committee on Cancer. Corpus Uteri-Carcinoma and Carcinosarcoma. In: *AJCC Cancer Staging Manual*. 8th ed. New York, NY: Springer; 2017:661-669.

Freeman SF et al. The Revised FIGO Staging System for Uterine Malignancies: Implications for MR Imaging. *RadioGraphics*. 2012**;** 32:1805–1827.

See all references for Endometrial Cancer

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Endometrial Cancer Survival Rates, by Stage

Survival rates tell you what percentage of people with the same type and stage of cancer are still alive a certain length of time (usually 5 years) after they were diagnosed. These numbers can't tell you how long you will live, but they may help give you a better understanding about how likely it is that your treatment will be successful. Some people will want to know the survival rates for their cancer type and stage, and some people won't. If you don't want to know, you don't have to.

What is a 5-year survival rate?

Statistics on the outlook for a certain type and stage of cancer are often given as 5-year survival rates, but many people live longer – often much longer – than 5 years. The 5-year survival rate is the percentage of people who live at least 5 years after being

diagnosed with cancer. For example, a 5-year survival rate of 50% means that an estimated 50 out of 100 people who have that cancer are still alive 5 years after being diagnosed. Keep in mind, however, that many of these people live much longer than 5 years after diagnosis.

Relative survival rates are a more accurate way to estimate the effect of cancer on survival. These rates compare people with cancer to people in the overall population. For example, if the 5-year relative survival rate for a specific type and stage of cancer is 50%, it means that people who have that cancer are, on average, about 50% as likely as people who don't have that cancer to live for at least 5 years after being diagnosed.

But remember, survival rates are estimates – your outlook can vary based on a number of factors specific to you.

Survival rates don't tell the whole story

Survival rates are often based on previous outcomes of large numbers of people who had the disease, but they can't predict what will happen in any particular person's case. Your doctor can tell you how the numbers below may apply to you, as he or she is familiar with the aspects of your particular situation.

The survival rates below are based on the stage of the cancer at the time it was diagnosed. These rates do not apply to cancers that have come back after treatment or have spread after treatment starts.

The numbers below come from the National Cancer Data Base as published in the AJCC Staging Manual in 2017, and are based on people diagnosed between 2000 and 2002.

Endometrial carcinoma

- The 5-year survival rate for women with stage 0 endometrial cancer is 90%*
- The 5-year survival rate for women with stage IA endometrial cancer is 88%
- The 5-year survival rate for women with stage IB endometrial cancer is 75%
- The 5-year survival rate for women with stage II endometrial cancer is 69%
- The 5-year survival rate for women with stage IIIA endometrial cancer is 58%
- The 5-year survival rate for women with stage IIIB endometrial cancer is 50%
- The 5-year survival rate for women with stage IIIC endometrial cancer is 47%
- The 5-year survival rate for women with stage IVA endometrial cancer is 17%
- The 5-year survival rate for women with stage IVB endometrial cancer is 15%

*The new staging system that went into effect January 2018 no longer includes Stage 0 cancers.

- References

See all references for Endometrial Cancer

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What Should You Ask Your Health Care Team 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 the 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 do I have?
- Has my cancer spread outside the uterus?
- What is the stage of my cancer and what does that mean?

When deciding on a treatment plan

- What treatments might be right for me? What do you recommend? Why?
- Am I eligible for a clinical trial?
- What is the goal of this treatment?
- How will you monitor my response to treatment?
- What should I do to be ready for treatment?
- What risks or side effects should I expect?
- What are the chances my cancer will come back with the treatments we have

discussed?

During treatment

Once treatment begins, 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 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?
- Will I be able to have children after my treatment?
- Can I still consider estrogen 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 resume 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 opinion, 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 some of your questions. To find out more about speaking with your health care team, see The Doctor-Patient Relationship.

- References

See all references for Endometrial Cancer

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