Treating Endometrial Cancer

If you've been diagnosed with endometrial cancer, your cancer care team will discuss your treatment options with you. It's important to weigh the benefits of each treatment option against the possible risks and side effects.

How is endometrial cancer treated?

The four basic types of treatment for women with endometrial cancer are:

- Surgery for Endometrial Cancer
- Radiation Therapy for Endometrial Cancer
- Chemotherapy for Endometrial Cancer
- Hormone Therapy for Endometrial Cancer

Common treatment approaches

Surgery is the main treatment for most women with this cancer. But in certain situations, a combination of these treatments may be used. The choice of treatment depends largely on the type of cancer and stage of the disease when it is found. Other factors could play a part in choosing the best treatment plan. These might include your age, your overall state of health, whether you plan to have children, and other personal considerations.

- Treatment Choices for Endometrial Cancer, by Stage

Who treats endometrial cancer?

Depending on the type and stage of your endometrial cancer, you may need more than one type of treatment. Doctors on your cancer treatment team may include:
• A **gynecologist**: a doctor who specializes in diseases of the female reproductive tract
• A **gynecologic oncologist**: a doctor who specializes in treating cancers of the female reproductive system (including surgery and chemotherapy)
• A **radiation oncologist**: a doctor who uses radiation to treat cancer
• A **medical oncologist**: a doctor who uses chemotherapy and other medicines to treat cancer

Many other specialists may be involved in your care as well, including nurse practitioners, nurses, psychologists, social workers, rehabilitation specialists, and other health professionals.

• [Health Professionals Associated With Cancer Care](#)

**Making treatment decisions**

It’s important to discuss all of your treatment options as well as their possible side effects with your family and your treatment team to make the choice that best fits your needs. If there’s anything you don’t understand, ask to have it explained.

If time permits, it is often a good idea to seek a second opinion. A second opinion can give you more information and help you feel more confident about the treatment plan you choose.

• [What Should You Ask Your Health Care Team About Endometrial Cancer?](#)
• [Seeking a Second Opinion](#)

**Thinking about taking part in a clinical trial**

Clinical trials are carefully controlled research studies that are done to get a closer look at promising new treatments or procedures. Clinical trials are one way to get state-of-the-art cancer treatment. In some cases they may be the only way to get access to newer treatments. They are also the best way for doctors to learn better methods to treat cancer. Still, they’re not right for everyone.

If you would like to learn more about clinical trials that might be right for you, start by asking your doctor if your clinic or hospital conducts clinical trials.

• [Clinical Trials](#)
Considering complementary and alternative methods

You may hear about alternative or complementary methods that your doctor hasn’t mentioned to treat your cancer or relieve symptoms. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

Complementary methods refer to treatments that are used along with your regular medical care. Alternative treatments are used instead of a doctor’s medical treatment. Although some of these methods might be helpful in relieving symptoms or helping you feel better, many have not been proven to work. Some might even be harmful.

Be sure to talk to your cancer care team about any method you are thinking about using. They can help you learn what is known (or not known) about the method, which can help you make an informed decision.

- Complementary and Alternative Medicine

Help getting through cancer treatment

Your cancer care team will be your first source of information and support, but there are other resources for help when you need it. Hospital- or clinic-based support services are an important part of your care. These might include nursing or social work services, financial aid, nutritional advice, rehab, or spiritual help.

The American Cancer Society also has programs and services – including rides to treatment, lodging, and more – to help you get through treatment. Call our National Cancer Information Center at 1-800-227-2345 and speak with one of our trained specialists.

- Find Support Programs and Services in Your Area

Choosing to stop treatment or choosing no treatment at all

For some people, when treatments have been tried and are no longer controlling the cancer, it could be time to weigh the benefits and risks of continuing to try new treatments. Whether or not you continue treatment, there are still things you can do to help maintain or improve your quality of life.

Some people, especially if the cancer is advanced, might not want to be treated at all.
There are many reasons you might decide not to get cancer treatment, but it’s important to talk to your doctors and you make that decision. Remember that even if you choose not to treat the cancer, you can still get supportive care to help with pain or other symptoms.

- If Cancer Treatments Stop Working
- Palliative or Supportive Care

The treatment information given here is not official policy of the American Cancer Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It is intended to help you and your family make informed decisions, together with your doctor. Your doctor may have reasons for suggesting a treatment plan different from these general treatment options. Don’t hesitate to ask him or her questions about your treatment options.

### Surgery for Endometrial Cancer

Surgery is often the main treatment for endometrial cancer and consists of a hysterectomy, often along with a salpingo-oophorectomy, and removal of lymph nodes. In some cases, pelvic washings are obtained, the omentum is removed, and/or peritoneal biopsies are obtained. If the cancer has spread throughout the pelvis and abdomen, a debulking procedure (removal of as much cancer as possible) may be done. These are discussed in detail below.

#### Hysterectomy

The main treatment for endometrial cancer is an operation to remove the uterus and cervix (called a hysterectomy). When the uterus is removed through an incision in the abdomen, it is called a simple or total abdominal hysterectomy. If the uterus is removed through the vagina, it is known as a vaginal hysterectomy. Removing the ovaries and fallopian tubes, a bilateral salpingo-oophorectomy (BSO), is not actually part of a hysterectomy; it is a separate procedure that is often done during the same operation (see below).

For endometrial cancer, removing the uterus but not the ovaries is seldom recommended, but it may be considered in women who are premenopausal. To decide
what stage the cancer is in, lymph nodes in the pelvis and around the aorta will also need to be removed (see below). This can be done through the same incision as the abdominal hysterectomy. If the hysterectomy is done vaginally, lymph nodes can be removed by laparoscopy.

When endometrial cancer has spread to the cervix or the area around the cervix (called the parametrium), a radical hysterectomy is done. In this operation, the entire uterus, the tissues next to the uterus (parametrium and uterosacral ligaments), and the upper part of the vagina (next to the cervix) are all removed. Both fallopian tubes and ovaries are removed at the same time. This operation is most often done through an incision in the abdomen, but it can also be done through the vagina.

When a vaginal approach is used, laparoscopy is used to help safely remove the necessary organs and tissues. Laparoscopy is a technique that lets the surgeon look at the inside of the abdomen and pelvis through tubes inserted into very small incisions. Small surgical instruments can be controlled through the tubes, allowing the surgeon to operate without a large incision in the abdomen. This can shorten the time needed for recovery from surgery. Both a hysterectomy and a radical hysterectomy can also be done through the abdomen using laparoscopy.

Surgery for endometrial cancer using laparoscopy seems to be just as good as more traditional open procedures if done by a surgeon who has a lot of experience in laparoscopic cancer surgeries.

A robotic approach, in which the surgeon sits at a control panel in the operating room and moves robotic arms to operate through several small incisions, is increasingly used to perform laparoscopic procedures, however long-term outcomes are not yet known.

For any of these procedures, general anesthesia will be used so the patient is asleep or sedated during these operations.

**Bilateral salpingo-oophorectomy**

This operation removes both fallopian tubes and both ovaries. This procedure is usually done at the same time the uterus is removed (either by simple hysterectomy or radical hysterectomy) to treat endometrial cancers. Removing both ovaries means that you will go into menopause if you have not done so already.

If you are younger than 45 when you get stage I endometrial cancer, you may discuss keeping your ovaries with your surgeon, because although women whose ovaries were removed had a lower chance of the cancer coming back, removing the ovaries didn’t
seem to help them live longer.

**Lymph node surgery**

**Pelvic and para-aortic lymph node dissection:** This operation removes lymph nodes from the pelvis and the area next to the aorta to see if they contain cancer cells that have spread from the endometrial tumor. It is called a *lymph node dissection* when most or all of the lymph nodes in a certain area are removed. This procedure is usually done at the same time as the operation to remove the uterus. If you are having an abdominal hysterectomy, the lymph nodes can be removed through the same incision. In women who have had a vaginal hysterectomy, these lymph nodes may be removed by laparoscopic surgery.

Laparoscopy is a technique that lets the surgeon look at the inside the abdomen and pelvis through tubes inserted into very small incisions. Small surgical instruments can be controlled through the tubes, allowing the surgeon to remove lymph nodes. This approach avoids the need for a large incision in the abdomen so the recovery time is often shorter.

When only a few of the lymph nodes in an area are removed, it’s called **lymph node sampling**.

Depending on the grade, the amount of cancer in the uterus and how deeply the cancer invades the muscle of the uterus, lymph nodes may not need to be removed.

**Sentinel lymph node mapping**

**Sentinel lymph node mapping (SLN) may be used in early-stage endometrial cancer if your doctor learns from x-ray results that there has been no obvious spread of cancer to the lymph nodes in your pelvis.** In this procedure, a blue dye is injected into the area with the cancer, usually near the cervix. The lymph nodes that turn blue (from the dye) are removed at surgery. These lymph nodes are examined closely to see if they contain any cancer cells. This procedure is usually done at the same time as surgery to remove the uterus. Your doctor will determine if you are eligible for SLN.

**Pelvic washings (peritoneal lavage)**

In this procedure, the surgeon “washes” the abdominal and pelvic cavities with salt water (saline) and sends the fluid to the lab to see if it contains cancer cells. This is also called **peritoneal lavage**.
Other procedures that may be used to look for cancer spread

- **Omentectomy:** The omentum is a layer of fatty tissue that covers the abdominal contents like an apron. Cancer sometimes spreads to this tissue. When this tissue is removed, it is called an omentectomy. This may be done during a hysterectomy if cancer has spread there or to check for cancer spread.

- **Peritoneal biopsies:** The tissue lining the pelvis and abdomen is called the peritoneum. Peritoneal biopsies remove small pieces of this lining to check for cancer cells.

**Tumor debulking**

If cancer has spread throughout the abdomen, the surgeon may attempt to remove as much of the tumor as possible. This is called *debulking*. Debulking a cancer can help other treatments, like radiation or chemotherapy, work better. Tumor debulking is helpful for other types of cancer, and it may also be helpful in treating some types of endometrial cancer.

**Recovery after surgery**

The hospital stay for an abdominal hysterectomy is usually from 3 to 7 days. The average hospital stay after an abdominal radical hysterectomy is about 5 to 7 days. Complete recovery can take about 4 to 6 weeks. A laparoscopic procedure and vaginal hysterectomy usually require a hospital stay of 1 to 2 days and 2 to 3 weeks for recovery. Complications of these surgeries are unusual and vary with the surgical approach, but they could include excessive bleeding, wound infection, and damage to the urinary or intestinal systems.

A radical hysterectomy affects the nerves that control the bladder, so a catheter is used to drain urine and is kept in place for at least a few days after surgery. If the bladder hasn’t recovered completely when it is removed, it may be replaced for a time or you may be shown how to insert a catheter yourself several times a day to empty your bladder until bladder function returns.

For more information on surgery for cancer, see Cancer Surgery.

**Side effects of surgery**
Any hysterectomy causes infertility (not being able to start or maintain a pregnancy). For women who were premenopausal before surgery, removing the ovaries will cause menopause. This can lead to symptoms such as hot flashes, night sweats, and vaginal dryness. Removing lymph nodes in the pelvis can lead to a build-up of fluid in the legs, a condition called lymphedema. This happens more often if radiation is given after surgery.

Surgery and menopausal symptoms can also affect your sex life. For more, see Sexuality for the Woman With Cancer.

References

See all references for Endometrial Cancer

Last Medical Review: February 10, 2016 Last Revised: November 20, 2017

Radiation Therapy for Endometrial Cancer

Radiation therapy uses high-energy radiation (such as x-rays) to kill cancer cells. It can be given in 2 ways to treat endometrial cancer:

- By placing radioactive materials inside the body. This is called internal radiation therapy or brachytherapy.
- By using a machine that focuses a beam of radiation at the tumor, much like having an x-ray. This is called external beam radiation therapy.

In some cases, both brachytherapy and external beam radiation therapy are given. When that is done, usually the external beam radiation is given first, followed by the brachytherapy. The stage and grade of the cancer help determine what areas need to be exposed to radiation therapy and which methods are used.
If your treatment plan includes radiation after surgery\(^2\), you will be given time to heal from the operation before starting radiation. Often, at least 4 to 6 weeks are needed.

The guidelines for post-operative radiation therapy were recently revised so be certain to ask if you are being treated according to the latest recommendations.

**Brachytherapy**

Patients who have had their uterus (and cervix) removed may have the upper part of the vagina treated with brachytherapy. To do this, called vaginal brachytherapy, a source of radiation is placed into a cylinder and inserted into the vagina. The length of the cylinder (and how much of the vagina is treated) can vary, but the upper part of the vagina is always treated. With this method, the radiation mainly affects the area of the vagina in contact with the cylinder. Nearby structures such as the bladder and rectum get less radiation exposure. The most common side effect is change in the lining of the vagina (discussed in more detail in side effects).

This procedure is done in the radiation suite of the hospital or care center. The radiation oncologist inserts a special applicator into the woman's vagina, and pellets of radioactive material are inserted into the applicator. There are 2 types of brachytherapy used for endometrial cancer, low-dose rate (LDR) and high-dose rate (HDR).

- **In LDR brachytherapy**, the radiation devices are usually left in place for about 1 to 4 days. The patient needs to stay immobile to keep the radiation sources from moving during treatment, and so she is usually kept in the hospital overnight. Several treatments may be necessary. Because the patient has to stay immobile, this form of brachytherapy carries a risk of serious blood clots in the legs (called deep venous thrombosis or DVT). LDR is less commonly used now in this country.

- **In HDR brachytherapy**, the radiation is more intense. Each dose takes a very short time (usually less than an hour), and the patient can go home the same day. For endometrial cancer, HDR brachytherapy is often given weekly or even daily for at least 3 doses.

**External beam radiation therapy**

In this type of treatment the radiation is delivered from a source outside of the body.

External beam radiation therapy is often given 5-days-a-week for 4 to 6 weeks. The skin covering the treatment area is carefully marked with permanent ink or injected dye.
similar to a tattoo. A special mold of the pelvis and lower back is custom made to ensure that the woman is placed in the exact same position for each treatment. Each treatment takes less than a half-hour, but the daily visits to the radiation center may be tiring and inconvenient.

Sometimes chemotherapy is given along with the radiation to help it work better. This is called chemoradiation.

Side effects of radiation therapy

Short-term side effects: Common side effects of radiation therapy\(^3\) include tiredness, upset stomach, or loose bowels. Serious fatigue\(^4\), which may not occur until about 2 weeks after treatment begins, is a common side effect. Diarrhea\(^5\) is common, but usually can be controlled with over-the-counter medicines. Nausea and vomiting\(^6\) may also occur, but can be treated with medication. These side effects are more common with pelvic radiation than with vaginal brachytherapy. Side effects tend to be worse when chemotherapy is given with radiation.

Skin changes\(^7\), which can range from mild redness to peeling and blistering, are also common. The skin may release fluid, which can lead to infection, so care must be taken to clean and protect the area exposed to radiation. Sometimes, as it heals, the skin in the treated area becomes darker or less flexible (harder).

Radiation can irritate the bladder, and you might have problems urinating. Irritation to the bladder, called radiation cystitis, can result in discomfort, blood in the urine\(^8\), and an urge to urinate often.

Radiation can also cause similar changes in the intestine. When there is rectal irritation or bleeding\(^9\), it is called radiation proctitis. This is sometimes treated with enemas that contain a steroid (like hydrocortisone) or suppositories that contain an anti-inflammatory.

Radiation can irritate the vagina, leading to discomfort and drainage (a discharge). This is called radiation vaginitis and if it occurs, your radiation doctor may recommend douching with a dilute solution of hydrogen peroxide. When the irritation is severe, open sores can develop in the vagina, which may need to be treated with an estrogen cream.

Radiation can also lead to low blood counts\(^10\), causing anemia\(^11\) (low red blood cells) and leukopenia\(^12\) (low white blood cells). The blood counts usually return to normal within a few weeks after radiation is stopped.
**Long-term side effects:** Radiation therapy may cause changes to the lining of the vagina leading to vaginal dryness. This is more common after vaginal brachytherapy than after pelvic radiation therapy. In some cases scar tissue can form in the vagina. The scar tissue can make the vagina shorter or more narrow (called *vaginal stenosis*), which can make sex (vaginal intercourse) painful. A woman can help prevent this problem by stretching the walls of her vagina several times a week. This can be done by having sexual intercourse 3 to 4 times a week or by using a vaginal dilator (a plastic or rubber tube used to stretch out the vagina). Still, vaginal dryness and pain with intercourse can be a long-term side effect of radiation. Some centers have physical therapists who specialize in pelvic floor therapy which can help to treat these vaginal symptoms and sometimes improve sexual function. You should ask your physician about this if you are bothered by these problems. You can also find some helpful information in *Sexuality for the Woman With Cancer*.

Pelvic radiation can damage the ovaries, resulting in premature menopause. However, this is not an issue for most women who are being treated for endometrial cancer because they have already gone through menopause, either naturally or as a result of surgery to treat the cancer (hysterectomy and removal of the ovaries).

Pelvic radiation therapy can also lead to a blockage of the fluid draining from the leg. This can lead to severe swelling, known as *lymphedema*. Lymphedema is a long-term side effect; it doesn't go away after radiation is stopped. In fact it may not appear for several months after treatment ends. This side effect is more common if pelvic lymph nodes were removed during surgery to remove the cancer. There are specialized physical therapists who can help treat this. It is important to begin treatment early if you develop it. For more information, read the *Lymphedema* section.

Radiation to the pelvis can also weaken the bones, leading to fractures of the hips or pelvic bones. It is important that women who have had endometrial cancer contact their doctor right away if they have pelvic pain. Such pain might be caused by a fracture, recurrent cancer, or other serious conditions.

Pelvic radiation can also lead to long-term problems with the bladder (radiation cystitis) or bowel (radiation proctitis). Rarely, radiation damage to the bowel can cause a blockage (called obstruction) or for an abnormal connection to form between the bowel and the vagina or outside skin (called a fistula). These conditions may need to be treated with surgery.

If you are having side effects from radiation, discuss them with your doctor. There are things you can do to get relief from these symptoms or to prevent them from happening.

For more information, please see the *Radiation Therapy* section of our website.
Chemotherapy for Endometrial Cancer

Chemotherapy (chemo) is the use of cancer-fighting drugs given into a vein or by mouth. These drugs enter the bloodstream and reach throughout the body, making this treatment potentially useful for cancer that has spread beyond the endometrium. If this treatment is chosen, you may receive a combination of drugs. Combination chemotherapy sometimes works better in treating cancer than one drug alone.

Chemo is often given in cycles: a period of treatment, followed by a rest period. The chemo drugs may be given on one or more days in each cycle.

Drugs used in treating endometrial cancer may include:

- Paclitaxel (Taxol®)
- Carboplatin
- Doxorubicin (Adriamycin®) or liposomal doxorubicin (Doxil®)
- Cisplatin

Most often, 2 or more drugs are combined for treatment. The most common combinations include carboplatin with paclitaxel and cisplatin with doxorubicin. Less often, paclitaxel and doxorubicin and cisplatin/paclitaxel/doxorubicin may be used.

For carcinosarcoma, the chemo drug ifosfamide (Ifex®) is often used, either alone or in combination with either carboplatin, cisplatin or paclitaxel. The combination of carboplatin and paclitaxel is also often being used for carcinosarcoma.

Sometimes chemo is given for a few cycles, followed by radiation¹. Then chemo is given...
again. This is called sandwich therapy and is sometimes used for endometrial papillary serous cancer and uterine carcinosarcoma.

Another treatment option is to give chemo with radiation (called chemoradiation). The chemo can help the radiation work better, but it can be harder on the patient because it causes more side effects.

**Side effects of chemotherapy**

These drugs kill cancer cells but can also damage some normal cells, which in turn can cause side effects. Side effects of chemotherapy depend on the specific drugs, the amount taken, and the length of time you are treated. Common side effects include:

- **Nausea and vomiting**
- **Loss of appetite**
- **Mouth and vaginal sores**
- **Hair loss**

Also, most chemotherapy drugs can damage the blood-producing cells of the bone marrow. This can result in low blood cell counts, such as:

- Low white blood cells which increases the risk of infection
- Low platelet counts which can cause bleeding or bruising after minor cuts or injuries
- Low red blood cells (anemia) which can cause problems like fatigue and shortness of breath

Most of the side effects of chemotherapy stop when the treatment is over, but some can last a long time. Different drugs can cause different side effects. For example, the drug doxorubicin can damage the heart muscle over time. The chance of heart damage goes up as the total dose of the drug goes up, so doctors place a limit on how much doxorubicin is given.

Cisplatin can cause kidney damage, so you will be given large amounts of IV fluids before and after chemotherapy to help protect the kidneys. Both cisplatin and paclitaxel can cause nerve damage (called neuropathy). This can lead to numbness, tingling, or even pain in the hands and feet. Ifosfamide can injure the lining of the bladder, causing it to bleed (called hemorrhagic cystitis). To prevent this, you might be given large amounts of IV fluids and a drug called mesna along with the chemo. Before starting chemotherapy, be sure to discuss the drugs and their possible side effects with your
health care team.

If you have side effects while on chemotherapy, remember that there are ways to prevent or treat many of them. For example, modern anti-nausea drugs can prevent or reduce nausea and vomiting. Be sure to tell your health care team about any side effects you are having.

For more information, please see the Chemotherapy\(^{12}\) section of our website.

References

See all references for Endometrial Cancer

Last Medical Review: February 10, 2016
Last Revised: February 29, 2016

Hormone Therapy for Endometrial Cancer

This type of treatment uses hormones or hormone-blocking drugs to fight cancer. It’s not the same as the hormone therapy given to treat the symptoms of menopause (menopausal hormone therapy\(^1\)).

Hormone treatment for endometrial cancer can include:

- Progestins (the main hormone treatment used)
- Tamoxifen
- Luteinizing hormone-releasing hormone agonists
- Aromatase inhibitors

Progestins
The main hormone treatment for endometrial cancer uses progesterone or similar drugs (called progestins). The 2 most commonly used progestins are medroxyprogesterone acetate (Provera®, which can be given as an injection or as a pill) and megestrol acetate (Megace®, which is given as a pill or liquid). These drugs slow the growth of endometrial cancer cells.

**Side effects can include:**

- Hot flashes
- Night sweats
- Weight gain (from fluid retention and an increased appetite)
- Worsening of depression.
- Progestins can cause increased blood sugar levels in women with diabetes
- Rarely, serious blood clots can happen

Sometimes endometrial hyperplasia and early endometrial cancers can be treated with an intrauterine device that contains levonorgestrel, a progestin. This may be combined with another hormone drug, such as medroxyprogesterone acetate or a luteinizing hormone-releasing hormone agonist (see section below).

**Tamoxifen**

Tamoxifen, an anti-estrogen drug often used to treat breast cancer, may also be used to treat advanced or recurrent endometrial cancer. The goal of tamoxifen therapy is to prevent any estrogens circulating in the woman's body from stimulating growth of the cancer cells. Even though tamoxifen may prevent estrogen from nourishing the cancer cells, it acts like a weak estrogen in other areas of the body. It does not cause bone loss, but it can cause hot flashes and vaginal dryness. People taking tamoxifen also have an increased risk of serious blood clots in the leg.

**Luteinizing hormone-releasing hormone agonists**

Most women with endometrial cancer have had their ovaries removed as a part of treatment. In others, radiation treatments have made their ovaries inactive. This reduces the production of estrogen and may also slow the growth of the cancer. Luteinizing hormone-releasing hormone agonists (LHRH agonists) are a way to lower estrogen levels in women who still have functioning ovaries. These drugs switch off estrogen production by the ovaries in women who are premenopausal.

Examples of GNRH agonists include goserelin (Zoladex®) and leuprolide (Lupron®).
These drugs are injected every 1 to 3 months. Side effects can include any of the symptoms of menopause, such as hot flashes and vaginal dryness. They can also cause muscle and joint aches. If they are taken for a long time (years), these drugs can weaken bones (sometimes leading to osteoporosis). These drugs are also called **gonadotropin-releasing hormone (GNRH) agonists**.

### Aromatase inhibitors

Even after the ovaries are removed (or are not functioning), estrogen is still made in fat tissue. This becomes the body's main source of estrogen. Drugs called aromatase inhibitors can stop this estrogen from being formed and lower estrogen levels even further. Examples of aromatase inhibitors include letrozole (Femara®), anastrozole (Arimidex®), and exemestane (Aromasin®). These drugs are most often used to treat breast cancer, but may be helpful in treating endometrial cancer, too. Side effects can include joint and muscle pain as well as hot flashes. If they are taken for a long time (years), these drugs can weaken bones (sometimes leading to osteoporosis). These drugs are still being studied for use in treating endometrial cancer.

### References

See all references for Endometrial Cancer

Last Medical Review: February 10, 2016 Last Revised: February 29, 2016

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### Treatment Choices for Endometrial Cancer, by Stage

Endometrial cancer is often diagnosed when a woman who is having symptoms has an endometrial biopsy or D&C. Diagnosis is often followed by surgery to treat and stage the cancer.

This operation includes removing the uterus, fallopian tubes, and ovaries (total
hysterectomy bilateral salpingo-oophorectomy or TH/BSO). Lymph nodes from the pelvis and around the aorta may also be removed (a pelvic and para-aortic lymph node dissection [LND] or sampling) and examined for cancer spread. Pelvic washings may be done, too. The tissues removed at surgery are examined under a microscope to see how far the cancer has spread (the stage). Depending on the stage of the cancer, other treatments, such as radiation\(^5\) and/or chemotherapy\(^6\) may be recommended.

For some women who still want to be able to get pregnant, surgery may be put off for a time and other treatments tried instead.

If the cancer has spread outside the uterus, a different surgery may be planned. If the cancer has spread to the inside of the liver, the lungs, or other organs, surgery may not be helpful, and so chemotherapy or other treatments may be used instead.

**Stage I cancers**

An endometrial cancer is stage I if the cancer is limited to the body of the uterus and has not spread to lymph nodes or distant sites. Surgery and other treatment often differ for cancers that aren't endometrioid. These cancers are discussed separately in this section.

**Endometrioid cancers**

Standard treatment includes surgery\(^7\) to remove and stage\(^8\) the cancer (see above).

Stage I cancers that have been staged with surgery may not need any further treatment. For some patients, especially those with higher grade tumors, doctors are more likely to recommend radiation\(^9\) after surgery. Either vaginal brachytherapy (VB), pelvic radiation, or both can be used.

Some younger women with early endometrial cancer may have the uterus removed without removing the ovaries. Although this does increase the chance that the cancer will come back, it doesn’t make it more likely that you will die from your cancer. This may be something that you want to discuss with your doctor.

Women who cannot have surgery because of other medical problems or who are frail due to age are often treated with radiation alone.

**Fertility-sparing treatment for stage IA grade 1 cancers:** In young women who still want to have children, surgery may be postponed for a time while progestin therapy\(^{10}\) is used to treat the cancer. Progestin treatment, as a pill, injection, or as a progestin-
containing intrauterine device, can cause the cancer to shrink or even go away for some time, giving the woman a chance to get pregnant. This approach is experimental and can be risky if the patient isn't watched closely.

Often, this does not work and the cancer doesn’t get better or keeps growing. Putting off surgery can give the cancer time to spread outside the uterus. If the cancer doesn’t go away, surgery to remove and stage the cancer is recommended (including a hysterectomy and removal of both fallopian tubes and ovaries).

Sometimes the tumor gets smaller or goes away for a while following treatment with progestins, but then comes back again. Because the cancer often comes back again, doctors recommend surgery to remove the uterus, fallopian tubes, and ovaries after childbearing is complete.

A second opinion from a gynecologic oncologist and pathologist (to confirm the grade of the cancer) before starting progestin therapy is important. Women need to understand that this is not a standard treatment and may increase risk.

Other endometrial cancers

Cancers such as papillary serous carcinoma, clear cell carcinoma, or carcinosarcoma are more likely to have already spread outside the uterus when diagnosed. Women with these types of tumors do not do as well as those with lower grade tumors. If the biopsy done before surgery showed a high-grade cancer, the surgery may be more extensive. In addition to the total hysterectomy, removal of both fallopian tubes and ovaries, and the pelvic and para-aortic lymph node dissections, the omentum is often removed.

After surgery, both chemotherapy (chemo) and radiation therapy are often given to help keep the cancer from coming back. The chemo usually includes the drugs carboplatin and paclitaxel (Taxol), but other combinations can also be used.

Stage II cancers

When an endometrial cancer is stage II, it has spread to the connective tissue of the cervix but still has not grown outside the uterus.

One treatment option is to have surgery first, possibly followed by radiation therapy. The surgery would include a radical hysterectomy (the entire uterus, the tissues next to the uterus, and the upper part of the vagina are all removed), removal of both fallopian tubes and ovaries (BSO), and pelvic and para-aortic lymph node dissection (LND) or sampling. Radiation therapy, often including both vaginal brachytherapy and
external pelvic radiation may be given after the patient has recovered from surgery. The other option is to give the radiation therapy first, followed by a simple hysterectomy, BSO, and possible LND or lymph node sampling.

The lymph nodes that have been removed are checked for cancer cells. If lymph nodes show cancer, then the cancer is not really a stage II – it’s a stage IIIC.

In some cases, a woman with early stage endometrial cancer might be too frail or ill from other diseases to safely have surgery. These women are treated with radiation therapy alone.

For women with high-grade cancers, such as papillary serous carcinoma or clear cell carcinoma, the surgery may include omentectomy and peritoneal biopsies in addition to the total hysterectomy, removal of both fallopian tubes and ovaries, pelvic and para-aortic lymph node dissections, and pelvic washings. After surgery, chemo, radiation therapy, or both may be given to help keep the cancer from coming back. The chemo usually includes the drugs carboplatin and paclitaxel or possibly cisplatin and doxorubicin.

Someone with a stage II uterine carcinosarcoma often has the same type of surgery that’s used for a high-grade cancer. After surgery, radiation, chemo, or both may be used. The chemo often includes paclitaxel and carboplatin but may instead include ifosfamide, along with paclitaxel or cisplatin.

### Stage III cancers

Stage III endometrial cancers have spread outside of the uterus.

If the surgeon thinks that all visible cancer can be removed, a hysterectomy is done and both ovaries and fallopian tubes are removed. Sometimes women with stage III cancers need a radical hysterectomy. A pelvic and para-aortic lymph node dissection may also be done. Pelvic washings will be done and the omentum may be removed. Some doctors will try to remove any remaining cancer (debulking), but it isn’t clear that this will help patients live longer.

If tests done before surgery reveal that the cancer has spread too far to be removed completely, radiation therapy may rarely be given before any surgery. The radiation may shrink the tumor enough to make surgery an option.

**Stage IIIA:** A cancer is considered stage IIIA when it has spread to the tissue covering the uterus (the serosa) or to other tissues in the pelvis like the fallopian tubes or the
ovaries (the adnexa). For these cancers, treatment after surgery may include chemo, radiation, or a combination of both. Radiation is given to the pelvis or to both the abdomen and the pelvis. Sometimes vaginal brachytherapy is used as well.

**Stage IIIB:** In this stage, the cancer has spread to the vagina. After surgery, stage IIIB may be treated with chemo and/or radiation.

**Stage IIIC:** This includes cancers that have spread to the lymph nodes in the pelvis (stage IIIC1) and those that have spread to the lymph nodes around the aorta (stage IIIC2). Treatment includes surgery, followed by chemo and/or radiation.

For women with high-grade cancers, such as papillary serous carcinoma or clear cell carcinoma, the surgery may include omentectomy and peritoneal biopsies in addition to the total hysterectomy, removal of both ovaries and fallopian tubes, pelvic and para-aortic lymph node dissections, and pelvic washings. After surgery, chemo, radiation therapy, or both may be given to help keep the cancer from coming back. The chemo usually includes the drugs carboplatin and paclitaxel or cisplatin and doxorubicin.

Women with stage III uterine carcinosarcoma often have the same type of surgery that’s used for a high-grade cancer. After surgery, radiation, chemo, or both may be used. The chemo often includes the drug paclitaxel and carboplatin, but ifosfamide, along with paclitaxel or cisplatin may be used.

**Stage IV cancers**

**Stage IVA:** These endometrial cancers have grown inside the bladder or bowel.

**Stage IVB:** These endometrial cancers have spread to lymph nodes outside the pelvis or para-aortic area. This stage also includes cancers that have spread to the liver, lungs, omentum, or other organs.

Some endometrial cancers are stage IV because they have spread to lymph nodes in the abdomen (and not just the pelvis and para-aortic area), but the cancers have not spread to any other areas. Women with this kind of cancer spread may have the best chance if all the cancer that’s seen can be removed (debulked) and biopsies of other areas in the abdomen do not show cancer cells.

However, in most cases of stage IV endometrial cancer, the cancer has spread too far for it all to be removed with surgery and a surgical cure is not possible. A hysterectomy and removal of both fallopian tubes and ovaries may still be done to prevent excessive bleeding. Radiation therapy may also be used for this reason.
When the cancer has spread to other parts of the body, hormone therapy\textsuperscript{21} may be used. Drugs used for hormone therapy include progestins and tamoxifen. Aromatase inhibitors may also be useful and are being studied. High-grade cancers and those without detectable progesterone and estrogen receptors are not likely to respond to hormone therapy.

Combinations of chemo\textsuperscript{22} drugs may help some women with advanced endometrial cancer for a time. The drugs used most often are paclitaxel, doxorubicin, and either carboplatin or cisplatin. These drugs are often used together in combination. Stage IV carcinosarcoma is often treated with similar chemo. Cisplatin, ifosfamide, and paclitaxel may also be combined. Women with stage IV endometrial cancer should consider taking part in clinical trials\textsuperscript{23} of chemotherapy or other new treatments.

**Recurrent endometrial cancer**

Cancer is called recurrent when it comebacks after treatment. Recurrence can be local (in or near the same place it started) or distant (spread to organs such as the lungs or bone). Treatment depends on the amount and location of the cancer.

For local recurrences, such as in the pelvis, surgery\textsuperscript{24} (sometimes followed with radiation therapy\textsuperscript{25}) may provide a cure. For women who have other medical conditions that make them unable to have surgery, radiation therapy alone or combined with hormone therapy\textsuperscript{26} is generally used.

For a distant recurrence, surgery and/or focused radiation therapy may also be used when the cancer is only in a few small spots (like in the lungs or bones). Women with more extensive recurrences (widespread cancer) are treated like those with stage IV endometrial cancer. Either hormone therapy or chemo\textsuperscript{27} is recommended. Low-grade cancers containing progesterone receptors are more likely to respond well to hormone therapy. Higher-grade cancers and those without detectable receptors are unlikely to shrink during hormone therapy but may respond to chemo. Clinical trials\textsuperscript{28} of new treatments are another option.

**References**

See all references for Endometrial Cancer


Last Medical Review: February 10, 2016 Last Revised: February 29, 2016