

Endometrial Cancer: Radiation Therapy



What is radiation therapy?

Radiation therapy is a treatment for cancer that uses strong beams of X-ray energy to kill and damage cancer cells. A machine directs the high energy rays to the area of cancer. Radiation therapy is also called radiotherapy. Its goal is to kill cancer cells and shrink tumors.

When radiation therapy may be used

Your healthcare provider may suggest radiation therapy in these cases:

- If you're not able to have surgery, radiation can be used instead.
- Radiation is often used after surgery to reduce the chance of the cancer coming back later. Radiation after surgery is not started until you've had some time to heal. This is usually about 4 to 6 weeks after surgery.
- Radiation might be used before surgery to help shrink a tumor so it's easier to remove.
- Radiation may be given along with chemotherapy, most often after surgery. This is called chemoradiation. The chemo helps the radiation work better, but this combination causes more side effects.

How radiation therapy is done

There are two main ways to get radiation therapy for endometrial cancer:

- **External radiation.** The radiation comes from a machine called a linear accelerator (linac). The beams of energy are aimed at the tumor through your skin. The treatment is a lot like getting an X-ray.
- **Internal radiation (brachytherapy).** This is a common type of radiation therapy used for endometrial cancer. A tube is placed in the vagina, up against the location of the tumor. The tube has an opening in the center that allows a radioactive seed to travel into the tube when the tube is connected to a radiation machine. This allows the radiation to be delivered. This is usually done after surgery to remove the uterus. It treats the upper part of the vagina that was near the uterus.

Some people need both an external radiation treatment (often for a few minutes each day, Monday to Friday, for 4 to 6 weeks) followed by internal radiation (often 2 to 3 sessions).

Which method is used and how often treatment is given depends on:

- How much the cancer has spread (the stage). Imaging studies, exams, and looking at the tissue taken out during surgery help make this decision.
- How fast the cancer is growing (grade), which is based on lab testing of the removed tissue
- If cancer was found in nearby lymph nodes

Deciding on a radiation treatment plan

You will meet with a radiation oncologist to talk about this treatment. This is a healthcare provider who specializes in treating cancer with radiation. You'll work with your provider to decide what your treatment will be and how long it will last. During your visit, ask what you can expect to feel like during and after treatment.

What to expect during external radiation therapy

This treatment is a lot like getting an X-ray. The radiation comes from a large machine. The machine doesn't touch you during the treatment. The treatments don't hurt and they are quick. Radiation is usually given once a day, 5 days a week, for 4 to 6 weeks.

Before you start treatment, imaging scans will be done to map out exactly where the cancer is. You may be asked to drink contrast fluid to help better see your bowel and other tissues on the scans. This process is called simulation. It's done to find and measure the tumor so the beams of radiation can be focused to a specific location.

Small marks (tiny tattoos) may be put on your skin to mark the treatment area. A special mold may be made to hold you in the exact same position for each treatment. This makes sure that the radiation hits the tumor, and limits damage to the healthy parts of your body.

Each treatment will likely take less than an hour. You are carefully put into the right position. A radiation therapist may use special shields to cover other parts of your body to protect you from the radiation. Or the machine itself may have built-in shields to protect you. You may see lights from the machine lined up with the marks on your skin.

The therapist will leave the room while the machine sends radiation to the cancer. During this time, they can see you, hear you, and talk to you. When the machine sends radiation to the cancer, you'll need to be very still, but you don't have to hold your breath. You may also be asked to drink several ounces of water before your treatment each day to make sure that your bladder is full. You may hear whirring or clicking noises from the machine. But you can't feel radiation. You will not be radioactive afterward.

What to expect during internal radiation (brachytherapy)

A plastic device in the shape of a cylinder is used for brachytherapy. This device is called an applicator. It's filled with a hollow tube that allows for a radiation source to travel into it. The applicator is put into the vagina during treatment.

Applicators come in different sizes and will fit in your vagina like a tampon. The amount of time the radioactive sources remains in the applicator depends on how much of your vagina needs to be treated. The upper part of the vagina, called the cuff, is always treated. This is where the uterus connected to the vagina before the uterus was removed.

The radiation travels only a very short distance to kill the nearby cancer cells. This can help lower the risk of the cancer returning in the vagina. It also helps limit damage to nearby organs, like your bladder and rectum.

This type of radiation may be given in a hospital or in an outpatient radiation clinic. It's given in two different ways:

- **High-dose rate (HDR) brachytherapy.** This uses strong radiation that's active for 10 to 20 minutes at a time. There's no need to stay in the hospital, and you can go home after the applicator is taken out. HDR brachytherapy may be given weekly or every other day. It's usually done 2 or 3 times.
- **Low-dose rate (LDR) brachytherapy.** This is usually done in the hospital, but it's seldom used in the U.S. for endometrial cancer. The applicator is put in and left in place for 1 to 4 days. During this time you have to stay in the hospital and can't move very much.

What happens after radiation therapy?

After you finish getting your radiation therapy, your oncologist and other healthcare providers will closely watch you to see how your body responds to the treatment. You will get lab tests and scans on a regular basis. Tell your healthcare providers about any problems or symptoms you have. Go to all of your follow-up appointments.

What are common side effects of radiation therapy?

Talk with your healthcare provider about what you might feel like during and after radiation therapy. Short-term side effects often get worse as treatment goes on. But they can often be treated. They often get better or go away over time after treatment ends.

Common side effects of radiation therapy for endometrial cancer include:

- Skin irritation in the treated area (with external radiation)
- Irritation, dryness, or redness of the vaginal lining (the most common side effect of brachytherapy)
- Vaginal pain and discharge
- Hair loss in the area being treated (including pubic hair)
- Feeling very tired or weak
- Nausea
- Bladder irritation and/or blood in your urine
- Bowel irritation and diarrhea or rectal bleeding
- Early menopause (If you still have your ovaries because you did not have surgery, radiation can damage them so they stop making hormones.)

Side effects depend on the type of radiation therapy used. For instance, brachytherapy mainly affects the lining of the vagina that's in contact with the cylinder, not your skin.

Side effects tend to be worse if you get chemotherapy along with radiation. Talk with your provider about what side effects you should watch for. Talk about what can be done to help prevent or ease them.

When to call your healthcare provider

Ask your healthcare provider what symptoms to watch out for. Also ask when you should call your healthcare team. Your provider will want you to call if you have signs of infection, such as fever or pain that gets worse.

Long-term side effects

Some long-term side effects of radiation may not show up for many months or years after you finish treatment. These depend on the dose and type of radiation. Vaginal dryness or scarring may become a lifelong problem, which can make having sex painful. Your healthcare provider may give you a vaginal dilator in order to prevent this scarring. You may have lymphedema. This is severe swelling caused by the blockage of fluid. Radiation can weaken the bones, causing fractures of the hip or pelvic bones. Bowel and bladder problems can also become lifelong issues. There are things you can do to help lessen and manage some of these long-term side effects. Ask your healthcare provider what to expect and how to address these concerns.

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