Radiation Therapy for Gynecologic Cancers

Radiation therapy is often used to treat gynecologic cancers. In addition to radiation, treatment may include:

- Surgery.
- Chemotherapy.
- Immunotherapy.
- Hormone therapy.

Often, more than one type of treatment is used. Treatment depends on the kind of gynecologic cancer, if it has spread, and how far it has spread. Gynecologic cancers include cervical, endometrial, uterine, fallopian, ovarian, vaginal, vulvar, gestational trophoblastic disease, and choriocarcinoma.

What types of radiation are used for treatment?

There are two main types of radiation therapy that are used to treat gynecologic cancers:

- **External beam radiation therapy (EBRT):** Aims radiation from a machine at the area of your body where your cancer is. The goal is to kill cancer cells. EBRT includes photons, protons, and electrons.
- **Internal radiation therapy** (brachytherapy): Uses a radioactive source that is placed inside your body either in or near the tumor to kill the cancer cells.

What should I expect before treatment?

Before starting radiation therapy, you will have an initial consultation (meeting) with your radiation oncologist to decide if radiation is right for you and to review the treatment consent. If you plan to have radiation, you will have a CT simulation. During the simulation, you will be placed in the position you will be in for your treatments and pictures will be taken of the inside of your body. Immobilization devices (materials that help you stay still during treatment) along with tattoos are often used to get you in the exact same position for each treatment.

After the CT simulation, a treatment plan will be made for you. During the treatment planning process, your radiation oncologist will decide how many treatments you will receive and how often. There are many people on your radiation care team, some you will meet, and others stay behind the scenes.

What side effects should I expect during treatment?

Radiation is used to kill cancer cells but can also hurt normal cells in the treatment area. The damage to these normal cells is the cause of the common side effects of radiation treatment. Side effects from radiation are caused by the cumulative effect of radiation on the cells. This means they develop over time, and you may not have any side effects until a few weeks into treatment. The possible side effects of radiation therapy are also directly related to the area of the body that is being treated.

You will visit with your radiation care team once a week while you are getting treatment. This visit gives you the chance to ask questions and talk about side effects and how to best manage them. If you start having a new or worsening side effect, you should call your care team. Each patient is different so you may not have all the possible side effects. Talk to your care team about what you can expect from your treatment.

**Short-Term Side Effects**

Short-term side effects are ones that start during or shortly after your radiation treatment. Some of the most common short-term
The side effects of radiation therapy for gynecologic cancers are:

- **Skin irritation**: The skin in the treatment area may become red, irritated, dry, or sensitive. This may start to look like a sunburn. Treat the skin gently to avoid further irritation, and bathe carefully, using only warm water and mild soap. Do not use perfumed or scented lotions or soaps, as these may cause further irritation.
- **Fatigue**: Fatigue is feeling very tired or exhausted. This is very common and tends to begin a few weeks into treatment. Fatigue often gets better slowly over the weeks and months after treatment.
- **Cystitis (inflammation of the bladder)**: Symptoms include dysuria (pain with urination), the need to urinate more, the need to urinate urgently, waking up at night to urinate, having a hard time starting to urinate, and blood in the urine.
- **Rectal Tissue Irritation**: This can cause bowel urgency, diarrhea, or discomfort with bowel movements. These symptoms tend to get better a few weeks after treatment is done.
- **Nausea and/or vomiting**: Nausea is a “sick” or “queasy” feeling in your stomach. Vomiting or “throwing up” often goes along with nausea. Your care team can prescribe medications to manage nausea. Dietary changes can also help.
- **Low blood counts**: This includes neutropenia (low white blood cell count), anemia (low red blood cell count) or thrombocytopenia (low platelet count).

### Long-Term Side Effects

Long-term side effects can happen months to many years after treatment and the risks depend on the area of the body being treated. They can also depend on the radiation techniques that are used. Some of the long-term side effects of radiation for gynecologic cancers are:

- **Vaginal dryness and painful sex**: These are common and can be long-term side effects caused by EBRT or brachytherapy.
- **Vaginal stenosis**: After radiation to the pelvic area, scar tissue forms in the vagina and the tissue becomes less elastic and more dry. There may be some shrinking of the vagina and vaginal opening. Scarring of the vaginal tissue can result in “adhesions,” or areas where scar tissue forms, sealing the sides of the vagina together. This can make it hard for your care provider to do vaginal exams and can make sexual intercourse uncomfortable. Your care team will teach you how to use vaginal dilators.
- **Lymphedema**: Damage to the drainage (lymphatic) system in the treatment area can lead to chronic swelling. This can happen during or after treatment. Learn about lymphedema risk reduction. Notify your healthcare provider if you develop any swelling in the legs or pelvis. A survivor with lymphedema who develops pain or redness in the leg(s), especially with fever, should be evaluated right away for an infection.
- **Fertility**: Fertility is the ability to become pregnant and have a child. Talk to your care team about options for fertility preservation if this is a concern.
- **Radiation fields that include the uterus can decrease the size and elasticity of the uterus, increasing the risk of miscarriage or preterm birth. Women who become pregnant should be sure their obstetrician (a doctor who specializes in pregnancy and childbirth) knows their treatment history and is comfortable caring for a high-risk pregnancy.**
- **Secondary Cancer**: There is a low risk of developing a second cancer in or near the treatment area. These are called secondary cancers, and they develop because healthy tissue is often exposed to radiation. Many of the current radiation techniques are designed to limit this exposure, but it is not always possible to prevent all exposure and still achieve the desired outcomes.

Side effects may be unpleasant, but there are treatments that can help you deal with them. After treatment, talk with your oncology team about receiving a survivorship care plan, which can help you manage the transition to survivorship and learn about life after cancer. You can create your own survivorship care plan using the OncoLife Survivorship Care Plan.