

# Radiation Therapy for **Gynecologic Cancers**



Gynecologic cancers include malignancies of the female genital tract involving the vulva, vagina, cervix, uterus, fallopian tubes or ovaries. According to the American Cancer Society, 109,000 women will be diagnosed with some form of gynecologic cancer this year. Cancers of the uterus and cervix are the most common gynecologic cancers treated with radiation and account for 75,050 new cases each year. Widespread screening with the Pap test allows doctors to find pre-cancerous changes in the cervix and vagina early.

**ASTRO**

TARGETING CANCER CARE



## TREATING GYNECOLOGIC CANCERS

Treatment for gynecologic cancers depends on several factors, including the type of cancer, extent (stage), location and your overall health. It is important to talk with several cancer specialists, including a radiation oncologist, gynecologic oncologist, and sometimes a medical oncologist, before deciding on the best treatment for you, your cancer and your lifestyle. Your cancer may be best treated by a combination of radiation therapy, surgery and chemotherapy. Sometimes, your cancer may be treated by only one type of treatment.

### *Radiation Therapy*

Radiation oncologists use radiation therapy to try to cure cancer, control cancer growth or relieve symptoms, such as pain or bleeding. Radiation therapy, sometimes called radiotherapy, uses radiation to treat cancer by damaging cells. When these cells die, the body naturally removes them. Radiation also damages healthy cells, but they can repair themselves in a way that cancer cells cannot.

There are two types of radiation therapy. External beam radiation therapy directs radiation beams at the cancer from outside the body. Internal radiation therapy, or brachytherapy, is delivered with radioactive sources that are temporarily placed into the vagina, uterus and/or surrounding tissues to kill the cancer cells.

### *Surgery*

Surgery is an important part of treatment for many tumors of the female reproductive system. A gynecologic oncologist is a doctor who specializes in surgery to treat gynecologic cancers. For uterine and cervical cancers, you may have a hysterectomy (removal of the uterus and other reproductive organs). The surgeon may also remove lymph nodes and check for any cancer cells in the fluid within the abdomen. For less common tumors like vulvar cancer, surgery is more likely to involve removing part or all of the vulva and checking lymph nodes. Surgery followed by radiation (and sometimes chemotherapy) help lower the risk of cancer coming back after surgery alone, depending on the disease and stage. When radiation is the main treatment, it is important to keep your surgeon involved in follow-up after radiation to monitor for signs of recurrence.



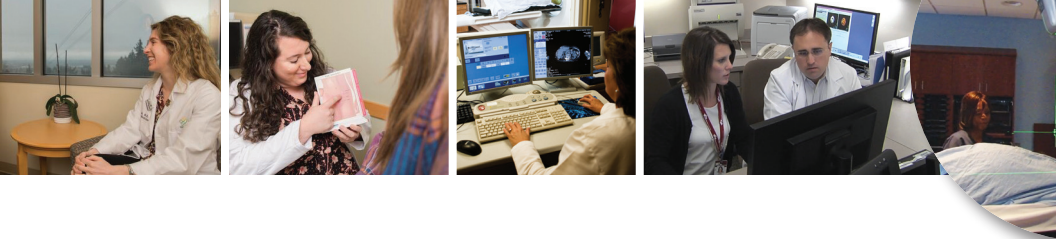
### ***Medical Therapy (Chemotherapy)***

Chemotherapy can improve cancer cure rates in certain gynecologic cancer patients. The dose and schedule for treatment varies, and chemotherapy can be done alone or with radiation therapy. Because chemotherapy recommendations vary depending on disease and stage, it is important to discuss options with a medical oncologist or gynecologic oncologist (surgeon). Both can prescribe chemotherapy for gynecologic cancers. Talk with your surgeon about whether you need an appointment with a medical or gynecologic oncologist for evaluation or treatment.

### **EXTERNAL RADIATION THERAPY**

External beam radiation therapy involves a series of daily outpatient treatments to accurately deliver radiation to the cancer. Treatments are typically Monday through Friday, for up to five to six weeks. Before beginning treatment, you will have a planning session (CT simulation) to map out the treatment area. A CT scan, PET/CT and an MRI can help show tissues near the cancer. You may receive small tattoo marks on your skin that help the radiation therapists precisely position you for each daily treatment. Typically, radiation therapy is done with high energy X-rays called photons. Proton beam therapy (PBT), another form of external radiation therapy may reduce radiation to healthy parts of the body.

Different types of external beam radiation therapy can be used for treatment. Three-dimensional conformal radiotherapy (3-D CRT) delivers exact, high doses of radiation to the cancer and lowers the dose to nearby healthy tissue. Intensity-modulated radiation therapy (IMRT) changes (modulates) how strong the radiation beams are to make delivery to the cancer more exact. Your radiation oncologist will evaluate you for the best form of treatment.



## **INTERNAL RADIATION THERAPY (BRACHYTHERAPY)**

Sometimes radiation is placed inside the body to get the source of the radiation as close to the cancer as possible. This type of radiation therapy is called brachytherapy and is an important and commonly used treatment for gynecologic cancers. Other names for this type of treatment besides internal radiation therapy or brachytherapy include interstitial implants and intracavitary implants. Brachytherapy can be done alone or in combination with external radiation therapy. Usually, the radioactive source is placed inside the body for short periods of time and then taken out.

There are two types of internal radiation: High-dose-rate (HDR) and Low-dose-rate (LDR) brachytherapy. HDR brachytherapy allows your doctor to deliver a higher dose of radiation in a shorter period of time directly to the tumor. This type of treatment is most commonly used in the treatment of cervical cancer but can sometimes be used as another treatment option to external beam radiation for early-stage uterine cancer. A typical course of treatment is three to six treatments given one to two times per week.

## **CARING FOR YOURSELF DURING TREATMENT**

It is important to care for yourself during radiation therapy. The healthy cells near your cancer receive some radiation, although not as much as the cancer. The healthy cells need time and support to heal. A balanced diet, plenty of water, some physical activity and rest are all important during cancer treatment.

- Follow your doctor's orders.
- Ask your nurse or doctor questions if you are unsure of anything they told you.
- Tell your radiation oncologist about any medications, vitamins or supplements you are taking to make sure they are safe to take during treatment.



- During and after radiation therapy, take special care of your skin. Stay out of the sun and avoid hot or cold packs. Use lotions or ointments only after checking with your doctor or nurse. Clean skin over the areas receiving radiation therapy with warm water and mild soap.

Treatment and recovery can be challenging. Seek help from support groups and friends ahead of time. Having a support network in place before and during treatment will help you cope. If you need additional support, let your doctor and nurse know.

## **QUESTIONS TO ASK YOUR DOCTOR**

- I was hoping to start a family, but I have been diagnosed with cancer. Are there fertility sparing options for me?
- I was diagnosed with cervical cancer even though I have always had normal Pap smears. Is that possible or is there some mistake?
- My mom had a gynecologic cancer, do I or my family members need genetic testing?
- How do I know if clinical trials are safe and fair? Are these good options?

**Urinary  
discomfort/  
urgency**

**Fatig**

**Loose stools/  
diarrhea**

**Skin re  
irrita**

**Ovarian  
failure**

**short**

← **more likely**

**possible si**

**Infertility**

**long**

**Decreased  
vaginal  
secretion/  
dryness**

**Loose s  
diarr**

**Early  
menopause**

**Vaginal  
stenosis/  
Narrowing**

*\*Larger bubbles show higher likelihood of occurrence. This list doesn't represent all*

ue

Rectal  
urgency

Blood in  
urine

Hair loss

Blood in  
stool

Decreased  
blood  
counts

ndness/  
tion

term

side effects

less likely 

term

stools/  
hea

Urinary  
frequency/  
urgency

Blood in  
urine

Fistula of  
bowel/vagina/  
bladder

Bowel  
obstruction

Stricture of  
bowel/vagina/  
urethra

Hip and  
bone  
fractures

Rectal  
urgency

Lymphedema

Secondary  
cancer

of the possible side effects. Please talk to your doctors about your specific diagnosis.



## ABOUT THE RADIATION ONCOLOGY TEAM

Radiation oncologists are the doctors who oversee the care of patients undergoing radiation treatment. Other members of the treatment team include radiation therapists, radiation oncology nurses, medical physicists, dosimetrists, social workers and nutritionists. For information on what each of these professionals does or to locate a radiation oncologist near you, visit [www.rtanswers.org](http://www.rtanswers.org).

## ABOUT ASTRO

The American Society for Radiation Oncology is the largest radiation oncology society in the world with more than 10,000 members who specialize in treating patients with radiation therapies. ASTRO is dedicated to improving patient care through education, clinical practice, advancement of science and advocacy. Visit [www.astro.org](http://www.astro.org) for information.

### AMERICAN SOCIETY FOR RADIATION ONCOLOGY

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