

FACTS ABOUT GYNECOLOGIC CANCER

Gynecologic cancers include cancer of the uterus, ovaries, cervix, vagina, vulva and Fallopian tubes.

- According to the American Cancer Society, nearly 83,000 women per year are diagnosed with some form of gynecologic or GYN cancer.
- The most common gynecologic cancer is uterine cancer with more than 40,000 cases diagnosed each year.
- Every year, more than 28,000 women die from a type of gynecologic cancer.
- Widespread screening with the Pap test has allowed doctors to find pre-cancerous changes in the cervix and vagina. This has helped prevent the development of some invasive cancers.

RISK FACTORS FOR GYNECOLOGIC CANCER

While all women are at risk for gynecologic cancer, some factors can increase a woman's chances of developing the disease.

- **Uterine cancer:** Never pregnant, beginning menstruation early, late menopause, diabetes, use of estrogen alone (called unopposed estrogen) for hormone replacement therapy, family history of uterine cancer, high blood pressure and complex atypical hyperplasia. Tamoxifen, a drug frequently used to treat breast cancer, increases the risk of uterine cancer slightly. A genetic syndrome called hereditary nonpolyposis colon cancer (HNPCC) may also increase a woman's risk.
- **Cervical cancer:** Strongly associated with sexually transmitted diseases, especially several strains of human papilloma virus (HPV), sexual activity at an early age, multiple sexual partners, smoking and obesity.
- **Ovarian cancer:** Obesity, never pregnant, unopposed estrogen, personal or family history of breast or ovarian cancer, genetic mutations in the BRCA1 or BRCA2 gene, HNPCC.
- **Vaginal cancer:** History of genital warts or an abnormal Pap test. There is an increased risk of clear cell carcinoma in women whose mothers took the drug diethylstilbestrol (DES) while pregnant. Women previously treated for carcinoma in-situ or invasive cervical cancer also have a higher risk of developing vaginal cancer.

HELPFUL WEB SITES ON GYNECOLOGIC CANCER

American Cancer Society
www.cancer.org

National Cancer Institute
www.cancer.gov

National Cervical Cancer Coalition
www.nccc-online.org

Women's Cancer Network
www.wcn.org

LEARNING ABOUT CLINICAL TRIALS

The radiation oncology team is constantly exploring new ways to treat gynecologic cancers through studies called clinical trials. Today's standard radiation therapy treatments are a result of clinical trials completed many years ago. For more information, please contact the following organizations:

National Cancer Institute
www.cancer.gov/clinicaltrials

Radiation Therapy Oncology Group
www.rtog.org



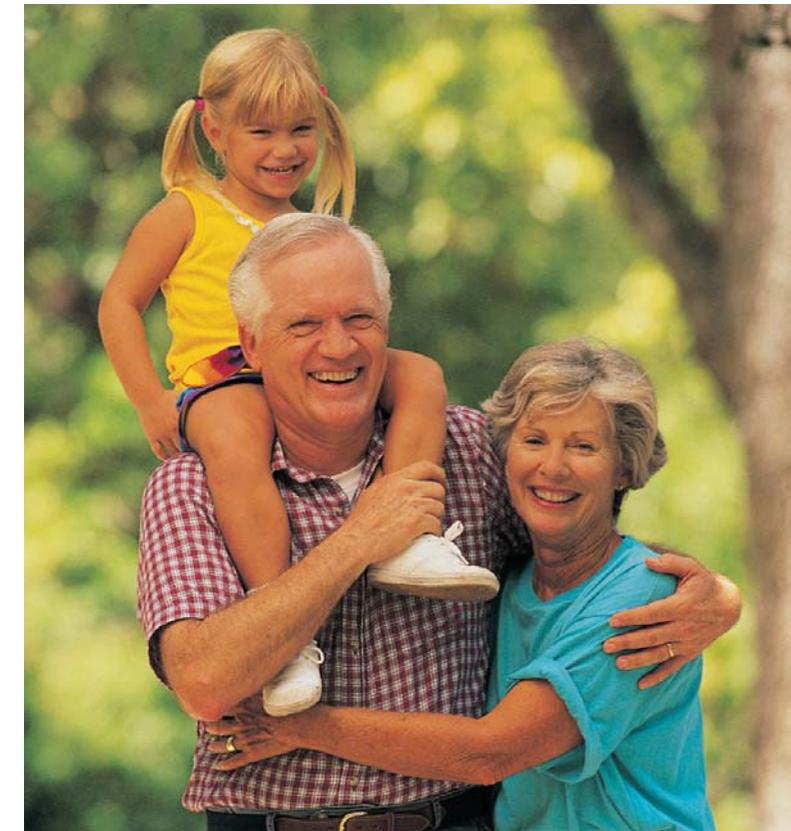
ABOUT THE RADIATION ONCOLOGY TEAM

Radiation oncologists are the doctors who oversee the care of each person undergoing radiation treatment. Other members of the radiation oncology team include radiation therapists, radiation oncology nurses, medical physicists, dosimetrists, social workers and nutritionists. To locate a radiation oncologist in your area, visit www.astro.org/patient.



ABOUT ASTRO

The American Society for Therapeutic Radiology and Oncology is the largest radiation oncology society in the world. ASTRO's mission is to advance the practice of radiation oncology by promoting excellence in patient care, promoting research and disseminating research results.



RADIATION THERAPY for GYNECOLOGIC CANCERS

Understanding Your Treatment Options



ASTRO

THE AMERICAN SOCIETY FOR THERAPEUTIC RADIOLOGY AND ONCOLOGY

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SIGNS AND SYMPTOMS OF GYNECOLOGIC CANCER

There are often no outward signs of gynecologic cancers. However, some common symptoms include:

- Unusual bleeding, such as postmenopausal bleeding, bleeding after intercourse or bleeding between periods.
- A sore in the genital area that doesn't heal or chronic itching of the vulva.
- Pain or pressure in the pelvis.
- Persistent vaginal discharge.

SCREENING FOR GYNECOLOGIC CANCER

Gynecologic cancers are often detected through a series of screening exams.

- Your doctor will first perform a pelvic exam to evaluate your vulva, vagina, cervix, uterus, Fallopian tubes, ovaries and rectum.
- During the pelvic exam, your doctor will gently scrape some cells from the cervix and vagina to examine under a microscope. This is called a Pap test.
- If the Pap test is abnormal, your doctor may perform a test called a colposcopy to closely examine the cervix. Scraping cells from the cervical canal (endocervical curettage) may also be necessary.
- A small sample of tissue may be taken from any suspicious area. This test is called a biopsy.
- Occasionally, doctors need to examine a larger sample of cervical tissue. It is obtained during a procedure called conization or cone biopsy.
- In some situations, your doctor may recommend an exam under anesthesia to better evaluate the extent of a cancer. Tests requiring anesthesia include examination of the bladder (cystoscopy) and rectum (sigmoidoscopy).
- Abnormal uterine bleeding, a common symptom of uterine cancer, is usually evaluated by performing a dilatation and curettage, also called a D and C.
- Your doctor may also ask for MRI, CT, PET or ultrasound scans of the abdomen and pelvis to better evaluate areas that cannot be directly viewed, such as the ovaries.

TREATMENT OPTIONS FOR GYNECOLOGIC CANCER

Treatment for gynecologic cancer depends on several factors, including the type of cancer, its extent (stage), its location and your overall health. It is important to talk with several cancer specialists before deciding on the best treatment for you, your cancer and your lifestyle.

- A **gynecologic oncologist** is a doctor who specializes in surgically removing gynecologic cancers.
- A **radiation oncologist** is a doctor specially trained to treat cancer with radiation therapy.
- A **medical oncologist** is a doctor who specializes in treating cancer with drugs (chemotherapy).

Sometimes, your cancer may be cured by using only one type of treatment. In other cases, your cancer may be best cured using a combination of surgery, radiation therapy and chemotherapy.

UNDERSTANDING RADIATION THERAPY

Radiation therapy, sometimes called radiotherapy, is the careful use of radiation to safely and effectively treat cancer.

- Radiation oncologists use radiation therapy to try to cure cancer, to control cancer growth or to relieve symptoms, such as pain.
- Radiation therapy works within cancer cells by damaging their ability to multiply. When these cells die, the body naturally eliminates them.
- Healthy tissues are also affected by radiation, but they are able to repair themselves in a way cancer cells cannot.

EXTERNAL BEAM RADIATION THERAPY

External beam radiation therapy involves a series of daily outpatient treatments to accurately deliver radiation to the cancer. Each treatment is painless and is similar to getting an X-ray. They are often given in a series of daily sessions, each taking less than half an hour, Monday through Friday, for five to six weeks. In some cases, you may receive more than one treatment in a day, often several hours apart.

- **3-dimensional conformal radiotherapy**, or 3D-CRT, combines multiple radiation treatment fields to deliver precise doses of radiation to the affected area. Tailoring each of the radiation beams to focus on the tumor delivers a high dose of radiation to the tumor and avoids nearby healthy tissue.
- **Intensity modulated radiation therapy**, or IMRT, is the most recent advance in the delivery of radiation. IMRT improves on 3D-CRT by modifying the intensity of the radiation within each of the radiation beams. This allows more precise adjustment of radiation doses to the tissues within the target area.

BRACHYTHERAPY

Brachytherapy (also called internal or intracavitary radiotherapy) involves placing radioactive sources in or next to the cancer. This is usually done at the same time or after external beam radiation therapy. Brachytherapy is very important in the treatment of vaginal, cervical and uterine cancers.

There are two main types of brachytherapy:

- Low-dose rate brachytherapy is delivered over the course of 48 to 72 hours. You will be admitted into the hospital to receive this treatment.
- High-dose rate brachytherapy is given over the course of several minutes, but the entire procedure typically takes a few hours. You may be able to go home immediately after this treatment.

Depending on the type of cancer you have, you may need to have several sessions of brachytherapy to cure your cancer.

POTENTIAL SIDE EFFECTS

The side effects you may experience will depend on the area being treated, the type of radiation used and whether or not you also received chemotherapy. Before treatment, your doctor will describe what you can expect.

- Some patients experience minor or no side effects and can continue their normal routines.
- Some patients may notice fatigue, skin irritation, vaginal irritation, frequent urination, burning with urination and/or diarrhea. These will all resolve after treatment ends.
- Some patients will have sexual changes, such as changes in the vagina.

If at any time you develop side effects, tell your doctor or nurse. He or she can give you medicine to help.

