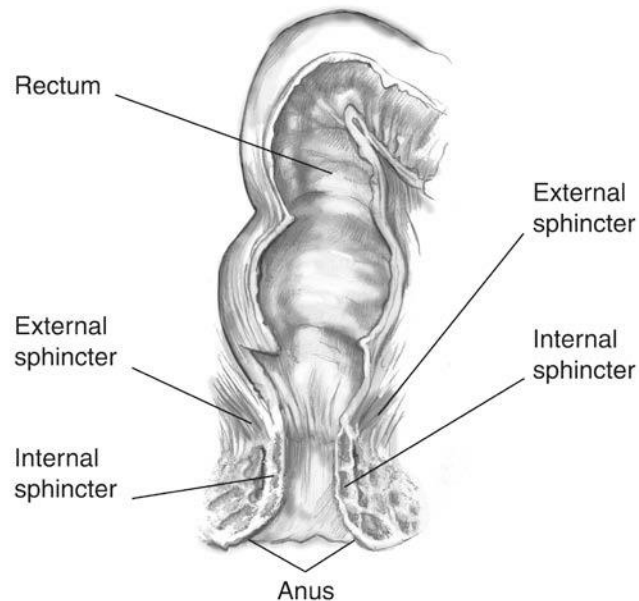


## Anal Cancer

Anal cancer is rare. The American Cancer Society estimates that more than 6,000 cases of anal cancer will be diagnosed in 2012. The rate of anal cancer in the general population ranges between seven to nine cases per million, however anal cancer cases have been on the rise. Adult women get anal cancer somewhat more than men.

More than 90 percent of patients are diagnosed with localized disease, and less than 20 percent of patients are diagnosed with or develop distant disease or metastasis (cancer that has spread to another organ). Cancer that occurs in the outer part of the anus is more common in men; cancer of the anal canal is seen more often in women.



The anus and surrounding area  
(Reprinted with permission from the National  
Institute of Diabetes and Digestive and Kidney  
Diseases, National Institutes of Health)

### What is the anal canal?

The anus is the last portion of the large bowel (colon). It is formed partially from the outer layers of the body and partially from the intestine. Two sphincters (ring-like muscles) open and close the anal canal to allow the passage of stool and gas from the intestine. The anus is approximately 1 ½ inches long and has two main layers. Anal cancers arise from the cells around the anal opening or within the anal canal where it meets the rectum.

### Are there different types of anal cancer?

- Squamous cell carcinoma arises from the skin cells around the anus. It is the most common type of anal cancer. It begins in the top layer of anal tissue. When it is limited to this layer, it is also known as Bowen's disease or squamous carcinoma in situ.
- Adenocarcinomas arise in glands that define the anal area.
- Rare types of anal cancer include lymphoma, small cell, basal cell, sarcomas, melanomas and

extramammary Paget's disease. Basal cell cancers and melanomas are skin tumors that can arise in the tissue around the anus.

## **What are the risk factors for anal cancer?**

You are at increased risk for anal cancer if you:

- Are female and 50 years of age or older
- Have a history of genital warts
- Have a history of more than 10 sexual partners
- Have a history of vaginal, vulvar or cervical cancer
- Participate in anal sexual intercourse and/or are a homosexual male
- Have a chronic suppressed immune system – Some individuals at increased risk include solid organ transplant patients, hemodialysis patients or those with HIV.
- Regularly use tobacco
- Have anal fistulas (abnormal opening)

## **What are the symptoms of anal cancer?**

Symptoms include:

- Bleeding from the rectum/anus or pain or pressure in the anal area
- Persistent or recurrent itching
- Mucus discharge from the anus
- Lumps or ulcers in the anal area
- Enlarged lymph nodes in the groin or anal area (feel a hard knot in the groin)
- Change in bowel habits such as having more or fewer bowel movements, constipation or diarrhea, narrowing of stools or increased straining with stools

## **What is staging, and how does it help determine survival rate?**

After your cancer is diagnosed, other tests and exams are done to determine the extent of the cancer. This process is called staging. Staging the tumor determines the size of the tumor and if the tumor has spread.

Tests used to determine staging may include a biopsy, a computerized tomography (CT) scan, or a magnetic resonance imaging (MRI). Staging ranges from Stage 0 (the cancer is localized to one area) to Stage IV (the cancer has spread to other parts of the body). Staging helps to determine the best treatment options for you.

## **How is anal cancer treated?**

There are three main treatment options for anal cancer without regard to type or stage. These treatment options include:

- Radiation treatment – high dose X-rays or other high dose rays that kill the cancer cells and shrink the tumor (Radiation is also called radiotherapy, X-ray therapy or irradiation.)

- Chemotherapy – drugs that kill cancer cells
- Surgery – an operation to remove the tumor

Your doctor may use a combination of these treatments. The use of chemotherapy along with radiation is standard for most anal cancers. Chemotherapy with radiation has been proven more effective than radiation alone in the treatment of anal cancers.

### **Radiation Treatment**

Radiation uses high dose X-rays or other high dose beams to kill the cancer cells. When it is delivered from a machine outside the body, it is called external beam radiation.

Radiation begins with a computerized tomography (CT) guided simulation. Once the simulation scans are taken, they are used to place marks on your body. These marks are then used to align the beams of radiation to the specific area being treated.

Patients do not receive oral or intravenous (IV) contrast during radiation simulation. The only requirement is that you lie still for 45 minutes while the CT scan is taken. The usual course of treatment is Monday through Friday (five treatments) for six weeks. This is carefully planned to spare as much normal tissue as possible.

Because of the location of these tumors, the skin in the anal and genital areas can become reddened, sore and irritated. Your radiation team will help you manage these symptoms.

Sometimes radiation therapy is used during surgery. This is called intraoperative radiation. It is delivered to the surgical area once the tumor has been removed to ensure the area has no cancer cells remaining. It is a one-time treatment.

### **Chemotherapy**

Chemotherapy uses drugs to kill cancer cells. It can come in pill form, or it can be delivered intravenously (into a vein). This is called systemic chemotherapy because it goes into the bloodstream and travels throughout the body. Some chemotherapy drugs also help the cancer cells become more sensitive to radiation. Together, they help to shrink the tumor and attempt to make surgery unnecessary.

Chemotherapy kills cancer cells but can also damage normal cells. Damaging normal cells can cause side effects like nausea, vomiting, loss of appetite, diarrhea, and/or hand or foot sores. You will meet with a dietitian to help you manage your diet while you are receiving treatment.

Certain chemotherapy drugs can also cause mild hair loss and damage the cells in the bone marrow that produce blood. As a result, you may develop low blood counts causing tiredness; an increased chance of infection; and bleeding or bruising after minor cuts or injuries. Your health care team will watch for these side effects and help you manage them. These side effects typically go away once treatment is over. If your immune system is immunocompromised, your treatment may be changed slightly to allow you to better tolerate the chemotherapy.

## **Surgery**

After chemotherapy and radiation therapy is complete, you will have several scans to look for any remaining disease. When you return, new CT scans will be performed and reviewed by a surgeon in order to see how well your cancer responded to treatment. Your surgical evaluation may also consist of a proctoscopy (an examination of the anus and rectum using a lighted instrument). An additional biopsy may be ordered if irregular tissue is found. Surgery may be performed if the cancer is seen on the outer part of the anus. These cancer lesions can be removed using local excision (removing the tumor and part of the surrounding tissue to make sure there are no more tumor cells present). Local excision usually does not affect the sphincter muscles.

If surgery is necessary, an abdominoperineal resection (APR) may be done. During this resection, the doctor removes the anus and the lower part of the rectum through an opening in the abdomen (the area of the body that contains the stomach, intestines, liver and other organs) as well as the perineum (the area between the anus and the sexual organs).

The sphincter muscle cannot be saved in this operation, so a permanent colostomy is required. This is a permanent opening (stoma) through which the stool passes into a collection bag. The bag is attached with special pads and glue, and thrown away after use. This surgery is not as common today. Very few patients will require surgery with a colostomy. If you do, there are enterostomal therapists (a health care professional that helps people with colostomies) that can help you learn to feel more comfortable caring for the colostomy.

The majority of tumors respond to a combination of chemotherapy and radiation treatment.

## **How can I learn to live with anal cancer?**

Any symptoms you experience will subside a few weeks after treatment. Your first follow-up visit will be in four to six weeks. Your team will make sure that you have any medications you need during that time. After that, you will need to schedule follow-up visits every three months for the first two years. That is when the chance of the cancer coming back is the greatest. By coming in for regular follow-up visits, any new cancer can be caught and treated at an earlier stage. Should you experience any problems after treatment, call your doctor right away.

You can also help yourself to recover by making healthy lifestyle choices. These include quitting smoking, limiting alcohol to two or less drinks per day, and eating a diet high in fruits, vegetables and whole grains. Make sure to get enough rest, but remember that exercise can help you recover as well.

Having cancer can change your life and the lives of your family members in many ways. Patients and their families often feel shock, anger, sadness, fear, frustration and confusion when faced with a diagnosis of cancer.

You may have many questions about the cancer, its treatment and its effect on your life. Your doctors and nurses are the best people to answer these questions. You may also have questions

about how your job, finances and family relationships will be affected. Your healthcare team can suggest services and agencies that help provide financial aid, transportation, home care and emotional support.

Living with any serious disease can be difficult and challenging. Many patients find that it helps to share their thoughts and feelings with a professional counselor or with other patients who are going through a similar experience. Others may find it easier to talk with a minister, priest, rabbi or other religious leader. Your health care team can also help you find support groups, counseling services or other related resources.

## **Resources**

The following organizations provide accurate, up-to-date information on anal cancer to patients and their families.

### **American Cancer Society**

800-227-2345

[www.cancer.org](http://www.cancer.org)

The American Cancer Society (ACS) is a voluntary national health organization with local offices around the country. The ACS supports research, provides information about cancer, and offers many programs and services to patients and their families.

### **National Cancer Institute**

[www.cancer.gov](http://www.cancer.gov)

This site has valuable cancer-related health information for over 200 cancer types, clinical trials, cancer statistics, prevention, screening, treatment and news.

### **United Ostomy Associations of America, Inc.**

800-826-0826

[www.uoaa.org](http://www.uoaa.org)

The United Ostomy Associations of America, Inc. (UOAA) is an association of affiliated, non-profit support groups committed to improving the quality of life of people who have or will have an intestinal or urinary diversion. Call the toll-free number to locate a support group near you.