



# Anal Cancer



**SANFORD<sup>®</sup>**  
CANCER CENTER

# What is Anal Cancer?

Anal cancer is a disease in which malignant (cancer) cells form in the tissues of the anus. The anus is the end of the large intestine, below the rectum, through which stool (solid waste) leaves the body. The anus is formed partly from the outer skin layers of the body and partly from the intestine. Two ring-like muscles, called sphincter muscles, open and close the anal opening and let stool pass out of the body. The anal canal, the part of the anus between the rectum and the anal opening, is about 1 to 1½ inches long. The skin around the outside of the anus is called the perianal area. Tumors in this area are skin tumors, not anal cancer.

# What are the risk factors for anal cancer?

Anything that increases the chance of getting a disease is called a risk factor. Having a risk factor does not mean that you will get cancer; not having risk factors does not mean that you will not get cancer. Recently, the human papillomavirus (HPV) vaccine has been used to lower the risk of anal cancer.

Risk factors for anal cancer include the following:

- Being infected with human papillomavirus (HPV)
- Having many sexual partners
- Having receptive anal intercourse (anal sex)
- Being older than 50 years
- Frequent anal redness, swelling, and soreness
- Having anal fistulas (abnormal openings)
- Smoking cigarettes

# What are the signs and symptoms of anal cancer?

These and other signs and symptoms may be caused by anal cancer or by other conditions:

- Bleeding from the anus or rectum
- Pain or pressure in the area around the anus
- Itching or discharge from the anus
- A lump near the anus
- A change in bowel habits

# What tests are used to detect (find) and diagnose anal cancer?

The following tests and procedures may be used:

- **Physical exam and history**
- **Digital rectal examination (DRE):** An exam of the anus and rectum. The doctor or nurse inserts a lubricated, gloved finger into the lower part of the rectum to feel for lumps or anything else that seems unusual.
- **Anoscopy:** An exam of the anus and lower rectum using a short, lighted tube called an anoscope.
- **Proctoscopy:** A procedure to look inside the rectum and anus to check for abnormal areas, using a proctoscope. A proctoscope is a thin, tube-like instrument with a light and a lens for viewing the inside of the rectum and anus. It may also have a tool to remove tissue samples, which are checked under a microscope for signs of cancer.

- **Endo-anal or endorectal ultrasound:**

A procedure in which an ultrasound transducer (probe) is inserted into the anus or rectum and used to bounce high-energy sound waves (ultrasound) off internal tissues or organs and make echoes. The echoes form a picture of body tissues called a sonogram.

- **Biopsy:** The removal of cells or tissues so they can be viewed under a microscope by a pathologist to check for signs of cancer. If an abnormal area is seen during the anoscopy, a biopsy may be done at that time. Anal cancer is often squamous cell carcinoma.

## **What determines how anal cancer is treated and prognosis?**

Certain factors affect prognosis (chance of recovery) and treatment options. The prognosis (chance of recovery) and treatment options depend on the following:

- The size of the tumor
- Where the tumor is in the anus
- Whether the cancer has spread to the lymph nodes

After anal cancer has been diagnosed, tests are done to find out if cancer cells have spread within the anus or to other parts of the body.

The process used to find out if cancer has spread within the anus or to other parts of the body is called staging. The information gathered from the staging process determines the stage of the disease. It is important to know the stage in order to plan treatment. The following tests may be used in the staging process:

**CT scan (CAT scan):** A procedure that makes a series of detailed pictures of areas inside the body, such as the abdomen or chest, taken from different angles. The pictures are made by a computer linked to an x-ray machine. A dye may be injected into a vein or swallowed to help the organs or tissues show up more clearly. This procedure is also called computed tomography, computerized tomography, or computerized axial tomography. For anal cancer, a CT scan of the pelvis and abdomen may be done.

**MRI (magnetic resonance imaging):** A procedure that uses a magnet, radio waves, and a computer to make a series of detailed pictures of areas inside the body.

**PET scan (positron emission tomography scan):** A procedure to find malignant tumor cells in the body. A small amount of radioactive glucose (sugar) is injected into a vein. The PET scanner rotates around the body and makes a picture of where glucose is being used in the body. Malignant tumor cells show up brighter in the picture because they are more active and take up more glucose than normal cells do.

## How does anal cancer spread?

Cancer can spread through tissue, the lymph system, and the blood:

- **Tissue.** The cancer spreads from where it began by growing into nearby areas.
- **Lymph system.** The cancer spreads from where it began by getting into the lymph system. The cancer travels through the lymph vessels to other parts of the body.

- **Blood.** The cancer spreads from where it began by getting into the blood. The cancer travels through the blood vessels to other parts of the body.

When cancer spreads to another part of the body, it is called metastasis. The metastatic tumor is the same type of cancer as the primary tumor. For example, if anal cancer spreads to the lung, the cancer cells in the lung are actually anal cancer cells. The disease is metastatic anal cancer, not lung cancer.

## **What are the stages used for anal cancer?**

### **Stage 0**

In stage 0, abnormal cells are found in the mucosa (innermost layer) of the anus. These abnormal cells may become cancer and spread into nearby normal tissue. Stage 0 is also called high-grade squamous intraepithelial lesion (HSIL).

### **Stages I (1) II (2) or III (3)**

Stages I (1) II (2) or III (3) describe the size, depth, and involvement of surrounding organs.

### **Stage IV (4)**

In stage IV, the tumor is any size. Cancer may have spread to lymph nodes or nearby organs and has spread to other parts of the body, such as the liver or lungs.

## Recurrent

Recurrent anal cancer is cancer that has recurred (come back) after it has been treated. The cancer may come back in the anus or in other parts of the body.

## How is anal cancer treated?

Most often, a combined treatment approach using radiation and chemotherapy is used to treat anal cancer.

### Radiation therapy

Radiation therapy is a cancer treatment that uses high-energy x-rays or other types of radiation to kill cancer cells or keep them from growing. The way the radiation therapy is given depends on the type and stage of the cancer being treated.

### Chemotherapy

Chemotherapy is a cancer treatment that uses drugs to stop the growth of cancer cells, either by killing the cells or by stopping them from dividing.

### Surgery

**Local resection:** A surgical procedure in which the tumor is cut from the anus along with some of the healthy tissue around it. Local resection may be used if the cancer is small and has not spread. This procedure may save the sphincter muscles so the patient can still control bowel movements. Tumors that form in the lower part of the anus can often be removed with local resection.

**Abdominoperineal resection:** A surgical procedure in which the anus, the rectum, and part of the sigmoid colon are removed through an incision made in the abdomen. The doctor sews the end of the intestine to an opening, called a stoma, made in the surface of the abdomen so body waste can be collected in a disposable bag outside of the body. This is called a colostomy. Lymph nodes that contain cancer may also be removed during this operation.

## **Follow-up tests may be needed**

Some of the tests that were done to diagnose the cancer or to find out the stage of the cancer may be repeated. Some tests will be repeated in order to see how well the treatment is working. Decisions about whether to continue, change, or stop treatment may be based on the results of these tests.

Long-term clinical exams are very important. Check-ups will be frequent during the first year after surgery and less often after that.

Support is available for coping with changes that may have happened as a result of cancer treatment. Your healthcare team can offer ideas as well as a plan of care for long-term follow-up.



# What are Clinical trials?

Clinical trials are done to find out if new cancer treatments are safe and effective or better than the standard treatment.

People who take part in a clinical trial may receive:

- The standard treatment alone or
- The standard treatment plus the new treatment being studied

Taking part in a clinical trial helps improve the way cancer will be treated in the future. Even when clinical trials do not lead to effective new treatments, they often answer important questions and help move research forward.

Many of today's standard treatments for cancer are based on earlier clinical trials.

**Ask if there is a clinical trial right for you.**

Some clinical trials only include people who have not yet received treatment. Other trials test treatments for those whose cancer has not gotten better. There are also clinical trials that test new ways to stop cancer from coming back or reduce the side effects of cancer treatment.

# To learn more about anal cancer

- American Cancer Society  
<https://www.cancer.org/>
- National Cancer Institute  
<https://www.cancer.gov/>
- National Comprehensive Cancer Network  
Guidelines for Patients  
<https://www.nccn.org/patients/guidelines/cancers.aspx>
- MedlinePlus  
<https://medlineplus.gov/>

## Common questions

What does the pathology report say?

What is the stage of my cancer?

What are my goals for treatment?

What are my treatment choices?

What kind of support services are available for me about finances, emotions, spiritual questions, etc.?

My Health Care Team	Contact Information
Surgeon:	
Medical Oncologist:	
Radiation Oncologist:	
Primary Care Doctor:	
Navigator:	
Nurse:	
Registered Dietitian Nutritionist:	
Other:	
Other:	
Other:	
Other:	

Adapted from:

PDQ Anal Cancer Treatment (PDQ®)-Patient Version was originally published by the National Cancer Institute. Updated October 19, 2018. Retrieved January 4, 2019  
<https://www.cancer.gov/types/anal/patient/anal-treatment-pdq>