

Anal Cancer

What is anal cancer?

Cancer describes a set of diseases in which normal cells in the body, through a series of genetic changes, lose the ability to control their growth. As cancers grow, they invade the tissues around them (*local invasion*). They may also spread to other locations in the body via the blood vessels or lymphatic channels where they may implant and grow (*metastases*).

The anal canal is a passage that connects the rectum to the outside of the body. The anal canal is surrounded by muscles that keep the anal canal closed except for when the muscles are relaxed during a bowel movement. Anal cancer arises from the cells around the anal opening or in the anal canal just inside the anal opening. Anal cancers arise from skin cells and are called *squamous cell carcinomas*. Cells that are becoming malignant but have not invaded deep to the skin are referred to as "*high grade dysplasia*", "*carcinoma-in-situ*" or "*Bowen's disease*".

How common is anal cancer?

Anal cancer is fairly uncommon. It accounts for about 1-2% of gastrointestinal cancers. About 4,000 new cases of anal cancer are diagnosed each year in the U.S.A., about half in women. Approximately 600 people will die of the disease each year. This may be compared to 140,000 new cases of colorectal cancer with 50,000 deaths per year.

Who is at risk?

Anal cancer is commonly associated with the human papilloma virus (HPV). This virus causes warts in and around the anus and on the cervix in women. It is associated with an increased risk of cervical cancer in women.

A risk factor is something that increases a person's chance of getting a disease. In addition to exposure to the human papilloma virus, additional risk factors include:

- **Age** - Most people with anal cancer are over 50 years old.
- **Anal sex** - Persons who participate in anal sex are at an increased risk.
- **Smoking** - Harmful chemicals from smoking increase the risk of most cancers including anal cancer.
- **Immunosuppression** - People with weakened immune systems, such as transplant patients who must take drugs to suppress their immune systems and patients with HIV (human immunodeficiency virus) infection, are at a somewhat higher risk.
- **Chronic local inflammation** - People with long-standing anal fistulas or open wounds are at a slightly higher risk.
- **Pelvic radiation** - People who have had pelvic radiation therapy for rectal, prostate, bladder or cervical cancer are at an increased risk.

Can anal cancer be prevented?

Few cancers can be totally prevented but your risk may be decreased significantly by reducing your risk factors and by getting regular checkups. Avoid anal sex and infection with HPV and HIV. Use condoms whenever having any kind of intercourse. Although condoms do not eliminate the risk of infection, they do reduce it. Stopping smoking lowers the risk of many types of cancer, including anal cancer.

Anal cancer screening may be performed in high-risk individuals. Anal cancer screening may include an anal Pap smear or anoscopy. An anal pap smear is the same type of test used to screen women for cervical cancer. A swab is passed into the anal canal and cells that come off on the swab are examined under a microscope. Anoscopy is the evaluation of the anal canal using a special scope that allows the physician to visually examine the lining of the anal canal. Any individual with an abnormal anal pap smear should have a follow-up anoscopy to examine the anal canal.

People who are at increased risk should talk to their doctors about anal cancer screening. Individuals who are at particularly increased risk include HIV-positive men, men who have sex with men, individuals with multiple sexual partners and women with a history of cervical warts or precancerous changes identified in the cervix.

What are the symptoms of anal cancer?

Many cases of anal cancer can be found early. Anal cancers form in a part of the digestive tract that the doctor can see and reach easily. Anal cancers often cause symptoms such as:

- Bleeding from the rectum or anus

- The feeling of a lump or mass at the anal opening
- Pain in the anal area
- Persistent or recurrent itching
- Change in bowel habits (having more or fewer bowel movements) or increased straining during a bowel movement
- Narrowing of the stools
- Discharge (mucous or pus) from the anus
- Swollen lymph nodes (glands) in the anal or groin areas.

These symptoms can also be caused by less serious conditions such as hemorrhoids but you should *never* assume this. If you have any of these symptoms, see your doctor.

How is anal cancer diagnosed?

An abnormal anal pap smear or the presence of symptoms should lead to examination of the anal canal. If an abnormal area is identified based on your doctor's exam, a biopsy will be performed to determine the diagnosis. If the diagnosis of cancer is confirmed, additional tests to determine the extent of the cancer may be recommended.

How are anal cancers treated?

Treatment for most cases of anal cancer is very effective. There are 3 basic types of treatment used for anal cancer:

- surgery – an operation to remove the cancer
- radiation therapy – high-dose x-rays to kill cancer cells, and
- chemotherapy – giving drugs to kill cancer cells.

Combination therapy including radiation therapy and chemotherapy is now considered the standard treatment for most anal cancers. Occasionally a very small or early tumor may be removed surgically (*local excision*), with minimal damage to the anal sphincter muscles.

Will I need a colostomy?

The majority of patients treated for anal cancer will not need a colostomy. If the tumor does not respond completely to combination therapy, if it recurs after treatment, or if it is an unusual type, removal of the rectum and anus and creation of a colostomy may be necessary. This operation is known as an *abdomino-perineal resection (APR)*.

What happens after treatment for anal cancer?

Follow-up care to assess the results of treatment and to check for recurrence is very important. Most anal carcinomas are effectively treated. In addition, many tumors that recur may be successfully treated if they are caught early. A careful examination by an experienced physician at regular intervals is the most important method of follow-up. Additional studies may be recommended. You should report any symptoms or problems to your doctor right away.

Conclusion

Anal cancers are unusual tumors arising from the skin or mucosa of the anal canal. As with most cancers, early detection is associated with excellent survival. Most tumors are well treated with combination chemotherapy and radiation. Recurrences may often be treated successfully. Follow the recommended screening examinations for anal and colorectal cancer and consult your doctor early when any anorectal symptoms occur.