About Anal Cancer

Overview and Types

If you have been diagnosed with anal cancer or are worried about it, you likely have a lot of questions. Learning some basics is a good place to start.

- What Is Anal Cancer?

Research and Statistics

See the latest estimates for new cases of anal cancer and deaths in the US and what research is currently being done.

- What Are the Key Statistics About Anal Cancer?
- What's New in Anal Cancer Research and Treatment?

What Is Anal Cancer?

Cancer starts when cells in the body begin to grow out of control. Cells in nearly any part of the body can become cancer, and can spread to other areas of the body. To learn more about how cancers start and spread, see What Is Cancer?

Anal cancer starts in the anus. To understand anal cancer, it helps to know about the normal structure and function of the anus.

The anus

The anus is the opening at the lower end of the intestines.

As food is digested, it passes from the stomach to the small intestine. It then travels
from the small intestine into the main part of the large intestine (called the *colon*). The colon absorbs water and salt from the digested food. The waste matter that is left after going through the colon is known as *feces* or *stool*. Feces are stored in the lower part of the large intestine, called the *rectum*, which is the final 6 inches of the digestive system. From there, they pass out of the body through the anus as a bowel movement.

The anal opening is connected to the rectum by the *anal canal*. The anal canal is about an inch and a half long. It goes from the rectum to the *anal verge* (where the canal meets the outside skin at the anus).
The inner lining of the anal canal is the *mucosa*. Most anal cancers start from cells in the mucosa.

Glands and ducts (tubes leading from the glands) are found under the mucosa. The glands make mucus, which acts as a lubricating fluid. Anal cancers that start from cells in the glands are called *adenocarcinomas*.

The anal canal changes as it goes from the rectum to the anal verge:

- Cells above the anal canal (in the rectum) and in the part of the anal canal close to the rectum are shaped like tiny columns.
- Most cells near the middle of the anal canal are shaped like cubes and are called *transitional cells*. This area is called the *transitional zone*.
- About midway down the anal canal is the *dentate line*, which is where most of the anal glands empty into the anus.
- Below the dentate line are flat (squamous) cells.
- At the anal verge, the squamous cells of the lower anal canal merge with the skin just outside the anus. This skin around the anal verge (called the *perianal skin* or
the anal margin) is also made up of squamous cells, but it also contains sweat glands and hair follicles, which are not found in the lining of the lower anal canal. Anal cancers are often divided into 2 groups, which are sometimes treated differently:

- Cancers of the anal canal (above the anal verge)
- Cancers of the anal margin (below the anal verge)

Sometimes anal cancers extend from one area into the other, so it’s hard to know exactly where they started.

The anal canal is surrounded by a sphincter, which is a circular muscle that keeps feces from coming out until it relaxes during a bowel movement.

**Anal tumors**

Many types of tumors can develop in the anus. Not all of these tumors are cancers – some are benign (non-cancerous). Some growths start off as benign but over time can develop into cancer. These are called pre-cancerous conditions. This section discusses all of these types of abnormal growths.

**Benign (non-cancerous) anal tumors**

**Polyps:** Polyps are small, bumpy, or mushroom-like growths that develop in the mucosa or just under it. There are several kinds.

- **Inflammatory polyps** start because of inflammation from injury or infection.
- **Lymphoid polyps** are caused by an overgrowth of lymph tissue (which is part of the immune system). Small nodules of lymph tissue are normally present under the anal inner lining.
- **Hypertrophied anal papillae** are benign growths of connective tissue that are covered by squamous cells. They are simply enlarged normal papillae, which are small folds of mucosa found at the dentate line. Hypertrophied anal papillae are also called fibroepithelial polyps.

**Skin tags:** Skin tags are benign growths of connective tissue that are covered by squamous cells. Skin tags are often mistaken for hemorrhoids (swollen veins inside the anus or rectum), but they are not truly hemorrhoids.

**Anal warts:** Anal warts (also called condylomas) are growths that occur just outside the anus and in the lower anal canal below the dentate line. Occasionally they can be found just above the dentate line. They are caused by infection with the human papilloma
virus (HPV). Anal warts are unlikely to develop into anal cancer, but people who have had anal warts are more likely to get anal cancer (see “Potentially pre-cancerous anal conditions” below and the section “What are the risk factors for anal cancer?”).

**Other benign tumors:** In rare cases, benign tumors can grow in other tissues of the anus. These include:

- **Adnexal tumors:** Usually benign growths that start in hair follicles or sweat glands of the skin just outside of the anus. These tumors stay in the perianal skin area and do not grow into the anal region.
- **Leiomyomas:** Benign tumors that develop from smooth muscle cells
- **Granular cell tumors:** Tumors that develop from nerve cells and are composed of cells that contain lots of tiny spots (granules)
- **Hemangiomas:** Tumors that start in the cells lining blood vessels
- **Lipomas:** Benign tumors that start from fat cells
- **Schwannomas:** Tumors that develop from cells that cover nerves

**Potentially pre-cancerous anal conditions**

Some changes in the anal mucosa are harmless in their early stages but might later develop into a cancer. A common term for these potentially pre-cancerous conditions is *dysplasia*. Some warts, for example, contain areas of dysplasia that can develop into cancer.

Dysplasia occurring in the anus is also known as *anal intraepithelial neoplasia* (AIN) and as *anal squamous intraepithelial lesions* (SILs). Depending on how the cells look, AIN (or anal SIL) can be divided into 2 groups:

**Low-grade AIN** *(sometimes called AIN1 or low-grade anal SIL)*: The cells in low-grade AIN resemble normal cells in many ways. Low-grade AIN often goes away without treatment. It has a low chance of turning into cancer.

**High-grade AIN** *(sometimes called AIN2 or AIN3, or high-grade anal SIL)*: The cells in high-grade AIN look much more abnormal. High-grade AIN is less likely to go away without treatment and could eventually become cancer, so it needs to be watched closely. Some cases of high-grade AIN need to be treated.

**Carcinoma in situ**

Sometimes abnormal cells on the inner surface layer of the anus look like cancer cells
but have not grown into any of the deeper layers. This condition is known as *carcinoma in situ*, (pronounced in SY-too), or *CIS*. Another name for this condition is *Bowen disease*. Some doctors view this as the earliest form of anal cancer and others consider it the most advanced type of AIN, which is considered a pre-cancer but not a true cancer.

**Invasive anal cancers**

Different types of cancer can start in the anal region:

**Squamous cell carcinomas:** Most anal cancers in the United States are squamous cell carcinomas. These tumors come from the squamous cells that line most of the anal canal and the anal margin.

Squamous cell carcinomas in the anal canal have grown beyond the surface and into the deeper layers of the lining (as opposed to carcinoma in situ).

*Cloacogenic carcinomas* (also called *basaloid or transitional cell carcinomas*) are a type of squamous cell cancer. They develop in the transitional zone, also called the *cloaca*. These cancers look slightly different under a microscope, but they behave and are treated like other squamous cell carcinomas of the anal canal.

Squamous cell carcinomas of the anal margin (perianal skin) are treated similarly to squamous cell carcinomas of the skin elsewhere in the body. For more information, see [Skin Cancer: Basal and Squamous Cell](#).

**Adenocarcinomas:** A small number of anal cancers are known as *adenocarcinomas*. These can develop in cells that line the upper part of the anus near the rectum, or in the glands under the anal mucosa that release their secretions into the anal canal. Most anal adenocarcinomas are treated the same way as rectal carcinomas. For more information, see [Colorectal Cancer](#).

Adenocarcinomas can also start in apocrine glands (a type of sweat gland of the perianal skin). *Paget’s disease* is a type of apocrine gland carcinoma that spreads through the surface layer of the skin. Paget's disease can affect skin anywhere in the body but most often affects skin of the perianal area, vulva, or breast. This condition should not be confused with Paget’s disease of the bone, which is a different disease.

**Basal cell carcinomas:** Basal cell carcinomas are a type of skin cancer that can develop in the perianal skin. These tumors are much more common in areas of skin exposed to the sun, such as the face and hands, and account for only a small number
of anal cancers. They are often treated with surgery to remove the cancer. For more information, see *Skin Cancer: Basal and Squamous Cell*.

**Melanomas:** These cancers develop from cells in the skin or anal lining that make the brown pigment called *melanin*. Only a very small portion of anal cancers are melanomas. Melanomas are far more common on the skin in other parts of the body. If melanomas are found at an early stage (before they have grown deeply into the skin or spread to lymph nodes) they can be removed with surgery, and the outlook for long-term survival is very good. But because anal melanomas are hard to see, most are found at a later stage. If possible, the entire tumor is removed with surgery. If all of the tumor can be removed, a cure is possible. If the melanoma has spread too far to be removed completely, other treatments may be given. For more information, see *Melanoma Skin Cancer*.

**Gastrointestinal stromal tumors (GISTs):** These cancers are much more common in the stomach or small intestine, but rarely they can start in the anal region. When these tumors are found at an early stage, they are removed with surgery. If they have spread beyond the anus, they can be treated with drug therapy. For more information, see *Gastrointestinal Stromal Tumor (GIST)*.

The rest of this document focuses mainly on anal squamous cell carcinomas, which account for the vast majority of anal cancers.

- References
  See all references for Anal Cancer

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**What Are the Key Statistics About Anal Cancer?**

Anal cancer is fairly rare – much less common than cancer of the colon or rectum. The American Cancer Society estimates for anal cancer in the United States for 2017 are:
• About 8,200 new cases (5,250 in women and 2,950 in men)
• About 1,100 deaths (650 in women and 450 in men)

The number of new anal cancer cases has been rising for many years. Anal cancer is rare in people younger than 35 and is found mainly in older adults, with an average age being in the early 60s.

The risk of being diagnosed with anal cancer during one’s lifetime is about 1 in 500. The risk is slightly higher in women than in men. The risk is also higher in people with certain risk factors for anal cancer.

Treatment for anal cancer is often very effective, and many patients with this cancer can be cured. But anal cancer can be a serious condition. For information on survival, see the section, “Survival rates by stage of anal cancer.”

Visit the American Cancer Society’s Cancer Statistics Center for more key statistics

• References

See all references for Anal Cancer

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What’s New in Anal Cancer Research and Treatment?

Important research into anal cancer is now under way in many hospitals, medical centers, and other institutions around the world. Each year, scientists find out more about what causes the disease, how to prevent it, and how to improve treatment.

Causes and prevention

Research has identified the human papilloma virus (HPV) as a major cause of anal
Researchers are learning how HPV affects molecules inside anal cells to cause them to become cancerous.

Improved understanding of the molecular changes inside anal cancer cells is expected to help scientists develop new drugs to fight this disease.

**Early detection**

Ongoing research is being done on the value of screening tests for anal cancer, especially in people with major risk factors. The test studied most is anal cytology, sometimes called the *anal Pap test*. This test may be useful in early diagnosis of anal cancer and pre-cancer (called *anal intraepithelial neoplasia*, or AIN). In this test, cells are gently scraped from the lining layer of the anus and checked under a microscope. Some doctors already recommend this test for people at high risk for anal cancers, such as those who are HIV positive.

Research is also in progress on treating AIN to help prevent cancer from developing.

**Treatment**

Anal cancer is not common, so it’s often hard to get enough people in clinical trials to study new treatments. Still, doctors are looking to improve on current treatments and develop new ones to help people with anal cancer.

**Radiation**

In the past several years, studies have shown the benefits of combining radiation with chemotherapy. This approach has reduced the number of surgical procedures needed for anal cancer, including the need for permanent colostomies.

New *radiosensitizing agents* – chemotherapy and other drugs that increase the effect of radiation therapy – are being studied in clinical trials. Combining these treatments might allow people to get lower doses of radiation and chemotherapy, which could lessen the possible side effects.

Doctors are learning more about how to give external radiation more accurately and effectively to decrease the effects on normal healthy tissues. Other research is being done to learn about the possible benefits of combining external radiation and internal radiation therapy.
Surgery

Doctors are also studying ways to improve surgery and its side effects. For instance, studies are now looking at implanting an artificial bowel sphincter in people who have an extensive type of surgery known as abdominoperineal resection (APR). The hope is that this artificial sphincter might allow people to avoid the need for a permanent colostomy. Currently such treatment is only available in carefully monitored clinical trials.

Chemotherapy

Chemotherapy (along with radiation) is an effective treatment for many anal cancers, but the drugs that are used can cause serious side effects in some people. Doctors are studying whether giving more or less chemo to certain people might help treat these cancers while limiting the side effects. Newer chemo drugs are also being studied.

Targeted drugs

As researchers have learned more about the changes inside cells that cause them to become cancer, they have developed newer drugs that specifically target these changes. Targeted drugs are different from standard chemotherapy drugs. They sometimes work when standard chemo drugs don’t, and they often have different (and less severe) side effects.

For example, many anal cancers have too much of a protein called EGFR on their cells, which helps the cells grow. Some drugs that target EGFR, such as cetuximab (Erbitux®) and panitumumab (Vectibix®), are already used to treat other types of cancer, and are now being studied for use with chemoradiation in treating anal cancer.

Immunotherapy

Immunotherapy is treatment that boosts the body’s immune response against cancer cells. Different kinds of immunotherapy are being study for use against anal cancer.

Treatment vaccines: The HPV vaccines available at this time help prevent HPV infection, but they do not treat infections already present. Researchers are now working on vaccines to treat women and men who already have HPV infections, by causing their body’s immune system cells to attack the HPV-infected cells.

Another goal of this research is to help the immune system attack pre-cancers and even cancers that contain HPV. An experimental vaccine has shown promise so far in
treating pre-cancers of the vulva, and is now being studied against anal pre-cancer (AIN).

Another HPV-based vaccine is being studied for use in combination with chemoradiation to treat anal cancer.

**Imiquimod cream:** Studies are also looking at using imiquimod cream to treat anal intraepithelial neoplasia (AIN). It is applied to the problem area 3 times a week. Imiquimod is approved as a treatment for anal and genital warts. It acts by boosting the body’s immune response. It has been used “off-label” to treat AIN in HIV-positive men with good results, and more recently was shown to be helpful in a clinical trial.

**Tumor-infiltrating lymphocytes:** Advanced anal cancers are hard to treat. In one treatment now being studied for these cancers, a piece of a tumor is surgically removed. The white blood cells in the sample that are attacking the tumor (known as *tumor-infiltrating lymphocytes*) are grown in the lab and then given back to the patient to treat the remaining cancer. A drug known as interleukin-2 (IL-2) is given along with the immune cells, which helps the cells stay alive and kill tumors. This approach is still in the very early phases of study.

- References
  See all references for Anal Cancer

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Causes, Risk Factors, and Prevention

Risk Factors

A risk factor is anything that affects your chance of getting a disease such as cancer. Learn more about the risk factors for anal cancer.

- What Are the Risk Factors for Anal Cancer?
- Do We Know What Causes Anal Cancer?

Prevention

There is no way to completely prevent cancer. But there are things you can do that might lower your risk. Learn more.

- Can Anal Cancer Be Prevented?

What Are the Risk Factors for Anal Cancer?

A risk factor is anything that affects your chance of getting a disease such as cancer. Different cancers have different risk factors. Some risk factors, like smoking, can be changed. Others, like a person’s age or family history, can’t.

Several factors can affect your risk of anal cancer. But having a risk factor, or even several risk factors, does not mean that you will get cancer. Many people with risk factors never develop anal cancer, while others with this disease may have few or no known risk factors.

Human papilloma virus (HPV) infection
Most squamous cell anal cancers seem to be linked to infection by the human papilloma virus (HPV), the same virus that causes cervical cancer. In fact, women with a history of cervical cancer (or pre-cancer) have an increased risk of anal cancer.

HPV is a group of more than 150 related viruses. They are called papilloma viruses because some of them cause papillomas, which are more commonly known as warts. There are many subtypes of HPV, but the one most likely to cause anal cancer is HPV-16. HPV-16, as well as HPV-18, HPV-31, HPV-33, HPV-45, and some others are considered high-risk types of HPV because they are strongly linked to cancer. They can also cause cancers of the cervix, vagina, and vulva in women, as well as cancer of the penis in men, and throat cancer in both women and men.

Other subtypes of HPV can cause warts in the genital and anal areas. The medical term for an anal or genital wart is condyloma acuminatum. The 2 types of HPV that cause most cases of anal and genital warts are HPV-6 and HPV-11. They are called low-risk types of HPV because they tend to cause warts but not cancer. HPV infection can cause anal and genital warts, but most people infected with HPV do not have genital warts or any other signs of infection.

HPV is passed from one person to another during skin-to-skin contact with an infected area of the body. HPV can be spread during sex – including vaginal, anal, and oral sex – but sex doesn’t have to occur for the infection to spread. All that is needed is for there to be skin-to-skin contact with an area of the body infected with HPV. The virus can be spread through genital-to-genital contact, or even hand-to-genital contact.

An HPV infection can also spread from one part of the body to another. For example, an HPV infection might start in the genitals and then spread to the anus.

It can be very hard to avoid being exposed to HPV. It might be possible to prevent genital HPV infection by not allowing others to have contact with your anal or genital area, but even then there could be other ways to become infected that aren’t yet clear.

Infection with HPV is common, and in most cases the body can clear the infection on its own. But in some people the infection doesn’t go away and becomes chronic. Chronic infection, especially with high-risk HPV types, can eventually cause certain cancers, including anal cancer.

**HPV in men**

For men, the 2 main factors influencing the risk of genital HPV infection are circumcision and the number of sexual partners.
Men who are circumcised (have had the foreskin of the penis removed) have a lower chance of becoming and staying infected with HPV. The reasons for this are unclear. It might be that the skin on the glans (tip) of the penis goes through changes after circumcision that make it more resistant to HPV infection. Another theory is that the surface of the foreskin (which is removed by circumcision) is more easily infected by HPV. Still, circumcision does not protect completely against HPV infection – men who are circumcised can still get HPV and pass it on to their partners.

The risk of being infected with HPV is also strongly linked to having many sexual partners (over a man’s lifetime).

**HPV in women**

In women, HPV infections occur mainly when they are younger and are less common in women over 30. The reason for this is not clear. Certain types of sexual behavior increase a woman’s risk of getting a genital HPV infection, such as having sex at an early age and having many sexual partners.

Although women who have had many sexual partners are more likely to get infected with HPV, a woman can still get infected even if she has had only one sexual partner. This is more likely if she has a partner who has had many sex partners or if her partner is an uncircumcised male.

For more information about HPV and HPV vaccines, see [*HPV Vaccines*](#).

**Anal warts**

Anal warts (also known as *condyloma acuminata*) are caused by infection with certain types of HPV – usually different types from those most likely to cause anal cancer. While anal warts themselves are unlikely to develop into anal cancer, people who have had anal warts are more likely to get anal cancer. This is because people who are infected with the low-risk HPV subtypes that cause anal and genital warts are also more likely to be infected with high-risk HPV subtypes that cause anal cancer.

**Having certain other cancers**

Women who have had cancer of the cervix, vagina, or vulva are at increased risk of anal cancer. This is probably because these cancers are also caused by infection with HPV.
In men, it would seem likely that having had penile cancer, which is also linked to HPV infection, would increase the risk of anal cancer, but this link has not been shown in studies.

**HIV infection**

People infected with the human immunodeficiency virus (HIV), the virus that causes AIDS, are much more likely to get anal cancer than those not infected with this virus. For more information about HIV and AIDS, see our document [HIV Infection, AIDS, and Cancer](#).

**Sexual activity**

Having multiple sex partners increases the risk of infection with HIV and HPV. It also increases the risk of anal cancer.

Receptive anal intercourse also increases the risk of anal cancer in both men and women, particularly in those younger than 30. Because of this, men who have sex with men have a high risk of this cancer.

**Smoking**

Smoking increases the risk of anal cancer. Current smokers are several times more likely to have cancer of the anus compared with people who do not smoke. Quitting smoking seems to reduce the risk. People who used to smoke but have quit are only slightly more likely to develop this cancer compared with people who never smoked.

**Lowered immunity**

Higher rates of anal cancer occur among people with reduced immunity, such as people with AIDS or people who have had an organ transplant and must take medicines that suppress their immune system.

**Gender and race/ethnicity**

Anal cancer is more common in women than men overall and in most racial/ethnic groups. However, in African Americans it is more common in men than in women.
Do We Know What Causes Anal Cancer?

Researchers have found some risk factors that increase a person’s risk of anal cancer, but the exact cause of anal cancer is not known.

HPV infection

Most anal cancers seem to be linked to infection with the human papilloma virus (HPV). While HPV infection seems to be important in the development of anal cancer, the vast majority of people with HPV infections do not get anal cancer.

A great deal of research is now being done to learn how HPV might cause anal cancer. There is good evidence that HPV causes many anal squamous cell carcinomas. But the role of this virus in causing anal adenocarcinomas is less certain.

More than 150 subtypes of HPV have been found. The subtype known as HPV-16 is often found in squamous cell carcinoma and is also found in some anal warts. Another subtype, HPV-18, is found less often. Most anal warts are caused by HPV-6 and HPV-11. Warts containing HPV-6 or HPV-11 are much less likely to become cancerous than those containing HPV-16.

HPV makes proteins (E6 and E7) that can shut down 2 important tumor suppressor proteins in normal cells. These proteins – p53 and Rb – normally work to keep cells from growing out of control. When these proteins are not active, cells are more likely to become cancerous.

Lowered immunity
When the body is less able to fight off infections, viruses like HPV can become more active, which might trigger the development of anal cancer. HIV, the virus that causes AIDS, weakens the body’s immune system, as can medicines used to prevent rejection in patients with organ transplants.

**Smoking**

Most people know that smoking is the main cause of lung cancer. But few realize that the cancer-causing chemicals in tobacco smoke can travel from the lungs to the rest of the body, causing other types of cancer. Smoking also seems to make the immune system less effective in fighting HPV infections. Many studies have noted an increased rate of anal cancer in smokers, and the effect of smoking is especially important in people with other risk factors for anal cancer.

It's important to remember that some people with anal cancers do not have any known risk factors and the causes of their cancers are not known.

- References
  
  See all references for Anal Cancer

Can Anal Cancer Be Prevented?

Since the cause of many cases of anal cancer is unknown, it’s not possible to prevent this disease completely. But there are things you can do that might lower your risk of anal cancer.

**Sexual practices**

The best way to reduce the risk of developing anal cancer is to avoid infection with HPV and HIV. The risk of these infections is higher for those who have sex with multiple partners and those who have unprotected anal sex.
Infection with HPV increases the risk of developing anal cancer. HPV infection can be present for years without causing any symptoms, so the absence of visible warts can’t be used to tell if someone has HPV. Even when someone doesn’t have warts (or any other symptom), he (or she) can still be infected with HPV and pass it on to somebody else.

**Condom use**

Condoms can provide some protection against HPV (and HIV), but they don’t prevent infection completely.

One study found that when condoms are used correctly they can lower the genital HPV infection rate in women by about 70% – but they must be used every time sex occurs. This study did not look at the effect of condom use on anal HPV infection.

Condoms can’t protect completely because they don’t cover every possible HPV-infected area of the body, such as skin of the genital or anal area. HPV can still be passed from one person to another by contact with an HPV-infected area of the body that is not covered by a condom. Still, condoms provide some protection against HPV. Male condom use also seems to help genital HPV infections clear (go away) faster in both women and men.

Condom use is also important because it can help protect against AIDS and other sexually transmitted illnesses that can be passed on through some body fluids.

**HPV vaccines**

Vaccines are available that protect against certain HPV infections. All of them protect against infection with HPV subtypes 16 and 18. Some can also protect against infections with other HPV subtypes, including some types that cause anal and genital warts.

These vaccines can only be used to help prevent HPV infection – they do not help treat an existing infection. To be most effective, the vaccine should be given before a person becomes sexually active.

Some of these vaccines, Gardasil® and Gardasil 9®, are approved to help prevent anal cancers and pre-cancers and anal and genital warts in both men and women. They are also approved to help prevent others cancers, too.
Cervarix®, another HPV vaccine available in the US, also helps protect against infection with certain HPV types and can help prevent cervical cancers and pre-cancers. Although it hasn’t yet been shown to prevent anal cancers and pre-cancers, a recent study has shown that it is also helpful in preventing anal HPV infection.

For more information, see HPV Vaccines.

Treating HIV

In people infected with HIV, it’s very important to take medicines (known as *highly active antiretroviral therapy*, or *HAART*) to help keep the infection under control and prevent it from progressing to AIDS. This also lowers the risk of long-term HPV infection and anal intraepithelial neoplasia (a kind of anal pre-cancer), which might help lower the risk of anal cancer.

Not smoking

Smoking is a known risk factor for anal cancer. Stopping smoking significantly reduces the risk of developing anal cancer and many other cancers.

- References

See all references for Anal Cancer

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Early Detection, Diagnosis, and Staging

Detection and Diagnosis

Catching cancer early often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that is not always the case.

- Can Anal Cancer Be Found Early?
- Signs and Symptoms of Anal Cancer
- How Is Anal Cancer Diagnosed?

Staging

After a cancer diagnosis, staging provides important information about the extent of cancer in the body and anticipated response to treatment.

- How Is Anal Cancer Staged?
- Survival Rates, by Stage of Anal Cancer

Questions to Ask About Anal Cancer

Here are some questions you can ask your cancer care team to help you better understand your cancer diagnosis and treatment options.

- What Should You Ask Your Doctor About Anal Cancer?

Can Anal Cancer Be Found Early?

Many anal cancers can be found early in the course of the disease. Early anal cancers often have signs and symptoms that lead people to see a doctor. Unfortunately, some anal cancers may not cause symptoms until they reach an advanced stage. Other anal cancers can cause symptoms like those of diseases other than cancer. This may delay
their diagnosis.

Anal cancers develop in a part of the digestive tract that your doctor can easily see and reach. A digital rectal exam (DRE) can find some cases of anal cancer early. In this exam, the doctor inserts a gloved, lubricated finger into the anus to feel for unusual lumps or growths. This test is sometimes used to look for prostate cancer in men (because the prostate gland can be felt through the rectum). The rectal exam is also done routinely as part of a pelvic exam on women.

The odds that anal cancer can be found early depend on the location and type of the cancer. Cancers that begin higher up in the anal canal are less likely to cause symptoms and be found early. Anal melanomas tend to spread earlier than other cancers, making it harder to diagnose them early.

**Screening in people at high risk**

Looking for a disease like cancer in someone with no symptoms is called screening. The goal of screening is to find cancer at an early stage, when treatment is likely to be most helpful. Anal cancer is not common in the United States, so screening the general public for anal cancer is not widely recommended at this time.

Still, some people at increased risk for anal intraepithelial neoplasia (AIN, a potentially pre-cancerous condition) and anal cancer might benefit from screening. This includes men who have sex with men (regardless of HIV status), women who have had cervical cancer or vulvar cancer, anyone who is HIV-positive, and anyone who has received an organ transplant. Some experts also recommend screening for anyone with a history of anal warts.

For these people, some experts recommend screening with regular DREs and anal cytology testing (also known as an anal Pap test or anal Pap smear because it is much like a Pap test for cervical cancer). For an anal Pap test, the anal lining is swabbed, and cells that come off on the swab are looked at under the microscope.

The anal Pap test has not been studied enough to know how often it should be done, or if it actually reduces the risk of anal cancer by catching AIN early. Some experts recommend that the test be done every year in men who have sex with men who are HIV-positive, and every 2 to 3 years if the men are HIV-negative. But there is no widespread agreement on the best screening schedule, or even exactly which groups of people can benefit from screening.

Patients with positive results on an anal Pap test should be referred for a biopsy. If AIN
is found on the biopsy, it might need to be treated (especially if it is high-grade).

- References
See all references for Anal Cancer

Signs and Symptoms of Anal Cancer

Sometimes anal cancer causes no symptoms at all. But bleeding is often the first sign of the disease. The bleeding is usually minor. At first, most people assume the bleeding is caused by hemorrhoids (painful, swollen veins in the anus and rectum that may bleed). They are a benign and fairly common cause of rectal bleeding.

Important symptoms of anal cancer include:

- Rectal bleeding
- Rectal itching
- A lump or mass at the anal opening
- Pain or a feeling of fullness in the anal area
- Narrowing of stool or other changes in bowel movements
- Abnormal discharge from the anus
- Swollen lymph nodes in the anal or groin areas

Most often these types of symptoms are more likely to be caused by benign (non-cancer) conditions, like hemorrhoids, anal fissures, or anal warts. Still, if you have any of these symptoms, it’s important to have them checked by a doctor so that the cause can be found and treated, if needed.

- References
See all references for Anal Cancer

Last Medical Review: April 9, 2014 Last Revised: January 20, 2016
How Is Anal Cancer Diagnosed?

Some cases of anal cancer in people at high risk are diagnosed by screening tests, such as the digital rectal exam and/or anal Pap test (described in "Can anal cancer be found early?"). Sometimes a doctor will detect anal cancer during a routine physical exam or during a minor procedure, such as removing a hemorrhoid. Treating cancers found in this way is often very effective because the tumors are found early in the course of the disease. But most often anal cancers are found because of signs or symptoms a person is having.

If anal cancer is suspected, exams and tests will be needed to confirm the diagnosis. If cancer is found, further tests will be done to help determine the extent (stage) of the cancer.

Medical history and physical exam

If you have symptoms that might be caused by anal cancer, the doctor will ask about your medical history to check for possible risk factors and to learn more about your symptoms.

Your doctor will also examine you to look for possible signs of anal cancer or other health problems. He or she will probably do a digital rectal exam (inserting a gloved, lubricated finger into the anus and rectum to feel for lumps or other abnormalities).

If the results of the exam are abnormal, your doctor might do other exams or tests to help find the problem. If you are being seen by your primary care doctor, you might be referred to a specialist such as a colorectal surgeon, also sometimes known as a proctologist (a doctor specializing in diseases of the colon, rectum, and anus) for further tests and treatment.

Endoscopy

Endoscopy is the use of a tube with a lens or tiny video camera on the end to examine an inner part of the body. Several types of endoscopy can be used to look for the cause of anal symptoms. They can also be used to get biopsy samples from inside the anal canal (described below). For these tests you either lie on your side on an examining
table, with your knees bent up to your chest, or you bend forward over the table.

**Anoscopy**

For anoscopy the doctor uses a short, hollow tube (called an *anoscope*), which is 3 to 4 inches long and about 1 inch in diameter, and may have a light on the end of it. The doctor coats the anoscope with a lubricant and then gently pushes it into the anus and rectum. By shining a light into this tube, the doctor has a clear view of the lining of the lower rectum and anus. This exam is usually not painful.

**Rigid proctosigmoidoscopy**

The rigid proctosigmoidoscope is similar to an anoscope, except that it is longer (about 10 inches long), so it lets the doctor see the rectum and the lower part of the sigmoid colon. You will probably need to take laxatives or have an enema beforehand to make sure your bowels are empty.

**Biopsy**

If a suspicious growth is found during an endoscopic exam, your doctor will need to take a sample of tissue to see if it is cancer. This is called a biopsy. If the growth is in the anal canal, this can often be done through the scope itself. You may get a local anesthetic to numb the area before the biopsy is taken. Then, a small piece of the tissue is cut out and sent to a lab. If the tumor is very small, your doctor might try to remove the entire tumor during the biopsy.

A doctor called a *pathologist* will look at the sample under a microscope. If cancer is present, the pathologist will send back a report describing the cell type and extent of the cancer. Biopsies to check for cancer spread to nearby lymph nodes.

Anal cancer sometimes spreads to nearby lymph nodes (bean-sized collections of immune system cells). Swollen lymph nodes in the groin can be a sign of spreading anal cancer. Lymph nodes may also become swollen from an infection.

**Fine-needle aspiration (FNA) biopsy:** To see if cancer cells are enlarging a lymph node, your doctor may withdraw a small sample of fluid and tissue from the lymph node using a thin, hollow needle. A pathologist checks this fluid for cancer cells. If cancer is found in a lymph node, an operation may then be done to remove the lymph nodes in that area.
Sentinel lymph node biopsy (SLNB): If anal cancer has already been diagnosed, this test might be used to help determine if the cancer has spread to the lymph nodes. While this test has been shown to be useful for some other cancers, it’s not yet clear how helpful it is for anal cancer.

A low-level radioactive tracer material is injected around the tumor. Often a blue dye is injected into the area at the same time. After an hour or so, the lymph nodes in the groin are scanned to see where the radioactive material has traveled. The doctor removes any radioactive or blue-stained lymph nodes. A pathologist then looks at the nodes for cancer cells.

This test can help tell how far the cancer has spread, because these sentinel lymph nodes would be the ones that any cancer cells leaving the tumor would have spread to first. If these nodes don’t contain cancer cells, it is very unlikely the cancer would have spread beyond this point.

Imaging tests

Imaging tests use x-rays, magnetic fields, sound waves, or radioactive substances to create pictures of the inside of your body. Imaging tests might be done for a number of reasons both before and after a diagnosis of anal cancer, including:

- To help find a suspicious area that might be cancer
- To learn how far cancer has spread
- To help determine if treatment has been effective
- To look for possible signs of cancer coming back after treatment

Some of these imaging tests are used more often than others.

Ultrasound

Ultrasound uses sound waves to make pictures of internal organs or masses. This test can be used to see how deep the cancer has grown into the tissues surrounding the anus.

A small microphone-like instrument, called a transducer, gives off sound waves, which bounce off organs and echo back. The echoes are picked up by the transducer and converted by a computer into an image on a screen.

For most ultrasound exams the transducer is placed on the skin. For anal cancer, though, the transducer is inserted directly into the rectum. This is known as transrectal
or endorectal ultrasound. The test can be slightly uncomfortable, but it usually is not painful. Ultrasounds are very safe and use no radiation.

Computed tomography (CT) scan

CT scans use x-rays to produce detailed cross-sectional images of your body. This is a common test for people with anal cancer. It can be used to help tell if the cancer has spread into the lymph nodes or to distant sites such as the liver, lungs, or other organs.

Instead of taking one picture, like a standard x-ray, a CT scanner takes many pictures as it rotates around you. A computer then combines these into an image of a slice of your body.

A CT scanner has been described as a large donut, with a narrow table that slides in and out of the middle opening. You will need to lie still on the table while the scan is being done. CT scans take longer than regular x-rays, and you might feel a bit confined by the ring while the pictures are being taken.

Before the test, you may be asked to drink 1 to 2 pints of a liquid called oral contrast. This helps outline the intestine so that certain areas are not mistaken for tumors. You may also receive an IV line through which a different kind of contrast dye (IV contrast) is injected. This helps better outline structures such as blood vessels in your body.

The injection can cause some flushing (redness and warm feeling). A few people are allergic to the dye and get hives, or rarely, have more serious reactions like trouble breathing and low blood pressure. Be sure to tell the doctor if you have any allergies or have ever had a reaction to any contrast material used for x-rays.

CT-guided needle biopsy: CT scans can also be used to guide a biopsy needle precisely into a suspected area of cancer spread. For this procedure, you remain on the CT scanning table while the doctor moves a biopsy needle through the skin and toward the tumor. CT scans are repeated until the needle is within the mass. A needle biopsy sample is then removed to be looked at under a microscope.

Magnetic resonance imaging (MRI)

MRI scans use radio waves and strong magnets instead of x-rays to make images of the body. The energy from the radio waves is absorbed by the body and then released in a specific pattern formed by the type of tissue and by certain diseases. A computer translates the pattern into detailed images of parts of the body. As with a CT scan, a contrast material might be used, but it is not needed as often.
This test is sometimes used to see if nearby lymph nodes are enlarged, which might be a sign the cancer has spread there.

MRI scans take longer than CT scans – often up to an hour – and are a little more uncomfortable. You have to lie on a table that slides inside a narrow tube. This is confining and can upset people that suffer from claustrophobia (a fear of enclosed spaces). If you have trouble with close spaces, let your doctor know before the scan. Sometimes medication can be given just before the scan to reduce anxiety. Another option might be to use a special “open” MRI machine that is less confining. The MRI machine makes buzzing or clanging noises that some people may find disturbing. Some places will provide headphones to block this sound.

**Chest x-ray**

This test might be done to find out if the cancer has spread to the lungs. It isn’t needed if a CT scan of the chest is done.

**Positron emission tomography (PET) scan**

For a PET scan, a form of radioactive sugar (known as fluorodeoxyglucose or FDG) is injected into the blood. A very low amount of radioactivity is used, and it will pass out of the body over the next day or so. Cancer cells in the body are very active, so they absorb large amounts of the radioactive sugar. After about an hour, you will be moved onto a table in the PET scanner. You lie on the table for about 30 minutes while a special camera creates a picture of areas of radioactivity in the body. The picture is not finely detailed like a CT or MRI scan, but it provides helpful information about your whole body.

Often a PET scan is done in a machine that can do a CT scan at the same time (a PET/CT scan). It lets the doctor compare areas of higher radioactivity on the PET scan with the more detailed appearance of that area on the CT scan.

For more information about scans and x-rays, see [Imaging (Radiology) Tests](#).

- References

  See all references for Anal Cancer

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How Is Anal Cancer Staged?

The stage of a cancer is a standard way for doctors to sum up how far a cancer has spread. The stage is important because treatment options and outlook for recovery and survival depend on the cancer’s stage. If you have anal cancer, ask your cancer care team to explain its stage in a way that you understand. This can help you take a more active role in decisions about your treatment.

Anal cancer is staged based on the results of exams and tests described in the section “How is anal cancer diagnosed?”

The most common system used to stage anal cancer is the TNM system of the American Joint Committee on Cancer (AJCC). This system is used only for tumors in the anal canal, not those that are only in the anal margin or perianal skin.

The TNM system

The TNM system for staging contains 3 key pieces of information:

- **T** describes the size of the primary tumor, measured in centimeters (cm), and whether the cancer has spread to organs next to the tumor.
- **N** describes the extent of spread to nearby (regional) lymph nodes (bean-sized collections of immune cells to which cancers often spread).
- **M** indicates whether the cancer has metastasized (spread) to other organs. (The most common sites of spread are the liver and lungs.)

Numbers or letters appear after T, N, and M to provide more details about each of these factors:

- The numbers 0 through 4 indicate increasing severity.
- The letter X means “cannot be assessed” because the information is not available.

**T categories for anal cancer**

**TX**: Primary tumor cannot be assessed
**T0:** No evidence of primary tumor

**Tis:** The cancer is only in the mucosa (the top layer of cells lining the inside of the anus). It has not started growing into the deeper layers. This is also known as *carcinoma in situ* (CIS).

**T1:** The tumor is 2 cm (about 4/5 inch) across or smaller

**T2:** Tumor is more than 2 cm but not more than 5 cm (about 2 inches) across

**T3:** Tumor is larger than 5 cm across

**T4:** Tumor of any size that is growing into nearby organ(s), such as the vagina, urethra (the tube that carries urine out of the bladder), prostate gland, or bladder

**N categories for anal cancer**

**NX:** Regional (nearby) lymph nodes cannot be assessed

**N0:** No spread to nearby lymph nodes

**N1:** Spread to lymph nodes near the rectum

**N2:** Spread to lymph nodes on one side of the groin and/or pelvis

**N3:** Spread to lymph nodes near the rectum and in the groin or pelvis, or to both sides of the groin or pelvis

**M categories for anal cancer**

**M0:** No distant spread

**M1:** Distant spread to internal organs or lymph nodes of the abdomen

**Stage grouping**

Once the T, N, and M categories have been assigned, this information is combined to assign an overall stage of 0, I, II, III, or IV. The stages identify cancers that have a similar prognosis (outlook) and thus are treated in a similar way. Patients with lower stage numbers tend to have a better outlook.
**Stage 0: Tis, N0, M0**

Stage 0 is very early cancer (or pre-cancer) that exists only in the top layer of anal tissue. This stage is also known as *carcinoma in situ* (CIS) or *Bowen disease*.

**Stage I: T1, N0, M0**

The cancer cells have spread beyond the top layer of anal tissue. The tumor is less than 2 cm (about 4/5 inch) across (T1). It has not spread to nearby lymph nodes (N0) or distant sites (M0).

**Stage II: T2 or T3, N0, M0**

The cancer is larger than 2 cm across, but it has not grown into nearby organs (T2 or T3). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).

**Stage IIIA:** Either of the following:

- **T1-T3, N1, M0:** The cancer can be any size, but it has not grown into nearby organs (T1-T3). It has spread to the lymph nodes around the rectum (N1). It has not spread to distant sites (M0).

- **T4, N0, M0:** The cancer has grown into nearby organs, such as the vagina or the bladder (T4). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).

**Stage IIIB:** Either of the following:

- **T4, N1, M0:** The cancer has grown into nearby organs, such as the vagina or the bladder (T4), and has also spread to lymph nodes around the rectum (N1). It has not spread to distant sites (M0).

- **Any T, N2 or N3, M0:** The cancer can be of any size and may or may not have grown into nearby organs (any T). It has spread to lymph nodes in the groin or pelvis, with or without spread to lymph nodes around the rectum (N2 or N3). It has not spread to distant sites (M0).

**Stage IV: Any T, Any N, M1**

The cancer can be any size and may or may not have grown into nearby organs (any T). It may or may not have spread to nearby lymph nodes (any N). It has spread to distant organs or tissues (M1).
Survival Rates, by Stage of Anal Cancer

Survival rates are often used by doctors as a standard way of discussing a person’s prognosis (outlook). Some people with cancer may want to know the survival statistics for people in similar situations, while others may not find the numbers helpful, or may even not want to know them. If you decide that you don’t want to know them, stop reading here and skip to the next section.

The 5-year survival rate refers to the percentage of patients who live at least 5 years after their cancer is diagnosed. Of course, many people live much longer than 5 years (and many are cured).

To get 5-year survival rates, doctors have to look at people who were treated at least 5 years ago. Improvements in treatment since then may result in a better outlook for people now being diagnosed with anal cancer.

The following statistics come from the National Cancer Data Base and are based on cancers diagnosed between 1998 and 1999. In addition to dividing the cancers by stage, the National Cancer Database divides anal cancers based on histology (how the cells look under the microscope) into squamous cell cancers and non-squamous cell cancers (See the section about invasive anal cancers in “What is anal cancer?” for more details.)

These numbers are observed survival rates. They include people diagnosed with anal cancer who might have died later from other causes, such as heart disease. Some people with anal cancer may have other serious health conditions. Therefore, the percentage of people surviving the cancer itself is likely to be higher.

<table>
<thead>
<tr>
<th>Stage</th>
<th>5-year observed survival for anal cancer</th>
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<tbody>
<tr>
<td></td>
<td>Squamous</td>
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<tr>
<td></td>
<td>Non-squamous</td>
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<tr>
<td>Stage</td>
<td>Cancer</td>
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<tr>
<td>I</td>
<td>71%</td>
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<td>II</td>
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<td>IIIB</td>
<td>43%</td>
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<tr>
<td>IV</td>
<td>21%</td>
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</tbody>
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Survival rates are often based on previous outcomes of large numbers of people who had the disease, but they can’t predict what will happen in any particular person’s case. The type and the stage of a person’s cancer are important in estimating their outlook. But many other factors are also important, such as a person’s general state of health, the treatment received, and how well the cancer responds to treatment. Your doctor can tell you how these numbers may apply to you, as he or she is familiar with your situation.

**References**

[See all references for Anal Cancer](#)

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**What Should You Ask Your Doctor About Anal Cancer?**

As you deal with your cancer and the process of treatment, you need to have honest, open discussions with your cancer care team. You should feel free to ask any question that’s on your mind, no matter how small it might seem. Among the questions you might want to ask are:

- What kind of anal cancer do I have?
- Has my cancer spread beyond where it started?
- What is my cancer’s stage? What does this mean?
- Will I need other tests before we can decide on treatment?
- Will I need to see other doctors?
- How much experience do you have treating this type of cancer?
• Should I get a second opinion? Can you recommend a doctor or cancer center?
• What are my treatment choices?
• What treatment would you recommend for me? Why?
• What is the goal of each treatment?
• What are the chances my cancer can be cured with these options?
• What risks or side effects can I expect? How long are they likely to last?
• Will I need to have a colostomy?
• How soon after treatment can I return to my normal activities, such as work, school, exercise, or sex?
• How soon do I need to start treatment?
• What should I do to be ready for treatment?
• How long will treatment last? What will it be like? Where will it be done?
• How soon after treatment starts will we know if it’s working?
• What will we do if the treatment doesn’t work or if the cancer comes back?
• What type of follow-up will I need after treatment?
• Where can I find more information and support?

You will no doubt have other questions about your own situation. Be sure and write your questions down so you will remember to ask them during each visit with your cancer care team. Keep in mind, too, that doctors are not the only ones who can provide you with information. Other health care professionals, such as nurses and social workers, may have the answers to some of your questions. You can find more information about communicating with your health care team in The Doctor-Patient Relationship.

• References
See all references for Anal Cancer

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1-800-227-2345 or www.cancer.org
Treating Anal Cancer

General treatment information

After the cancer is found and staged, your cancer care team will discuss treatment options with you. The choice of treatment you receive depends on many factors. The location, type, and the stage (extent of spread) of the tumor are important. In choosing your treatment plan, you and your cancer care team will also take into account your age, the general state of your health, and your personal preferences.

The 3 main methods of treatment for anal cancer are:

- Surgery
- Radiation therapy
- Chemotherapy

Often the best approach combines 2 or more of these strategies. In the past, surgery was the only way to cure anal cancer, but now most anal cancers are treated with radiation and chemotherapy combined (called chemoradiation or chemoradiotherapy). This approach often eliminates the need for surgery.

Based on your treatment options, you might have different types of doctors on your treatment team. These doctors could include:

- A radiation oncologist: a doctor who treats cancer with radiation therapy
- A medical oncologist: a doctor who treats cancer with medicines such as chemotherapy
- A surgical oncologist (oncologic surgeon): a doctor who uses surgery to treat cancer
- A colorectal surgeon (proctologist): a doctor who uses surgery to treat diseases of the colon, rectum, and anus

You might have many other specialists on your treatment team as well, including
physician assistants, nurse practitioners, nurses, nutrition specialists, social workers, and other health professionals. See Health Professionals Associated With Cancer Care for more on this.

It’s important to discuss all treatment options, including their goals and possible side effects, with your doctors to help make the decision that best fits your needs. You may feel that you need to make a decision quickly, but it’s important to give yourself time to absorb the information you have learned. Ask your cancer care team questions. You can find some good questions to ask in the section, “What should you ask your doctor about anal cancer?”

If time permits, it is often a good idea to seek a second opinion. A second opinion can give you more information and help you feel more confident about the treatment plan you choose.

**Thinking about taking part in a clinical trial**

Clinical trials are carefully controlled research studies that are done to get a closer look at promising new treatments or procedures. Clinical trials are one way to get state-of-the-art cancer treatment. In some cases they may be the only way to get access to newer treatments. They are also the best way for doctors to learn better methods to treat cancer. Still, they are not right for everyone.

If you would like to learn more about clinical trials that might be right for you, start by asking your doctor if your clinic or hospital conducts clinical trials. You can also call our clinical trials matching service at 1-800-303-5691 for a list of studies that meet your medical needs, or see “Clinical Trials” to learn more.

**Considering complementary and alternative methods**

You may hear about alternative or complementary methods that your doctor hasn’t mentioned to treat your cancer or relieve symptoms. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

Complementary methods refer to treatments that are used along with your regular medical care. Alternative treatments are used instead of a doctor’s medical treatment. Although some of these methods might be helpful in relieving symptoms or helping you feel better, many have not been proven to work. Some might even be dangerous.

Be sure to talk to your cancer care team about any method you are thinking about
using. They can help you learn what is known (or not known) about the method, which can help you make an informed decision. See Complementary and Alternative Medicine to learn more.

**Help getting through cancer treatment**

Your cancer care team will be your first source of information and support, but there are other resources for help when you need it. Hospital- or clinic-based support services are an important part of your care. These might include nursing or social work services, financial aid, nutritional advice, rehab, or spiritual help.

The American Cancer Society also has programs and services – including rides to treatment, lodging, support groups, and more – to help you get through treatment. Call our National Cancer Information Center at 1-800-227-2345 and speak with one of our trained specialists on call 24 hours a day, every day.

Your recovery is the goal of your cancer care team. If the cancer can’t be cured, the goal may be to help you live as well as possible for as long as possible. This may involve treatment to remove or destroy as much of the cancer as possible and to prevent the tumor from growing, spreading, or returning for as long as possible. Sometimes, treatment is aimed at relieving symptoms such as pain or bleeding and improving the person’s quality of life, even if it will not result in a cure.

The next few sections describe the different types of treatment for anal cancer.

*The treatment information given here is not official policy of the American Cancer Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It is intended to help you and your family make informed decisions, together with your doctor. Your doctor may have reasons for suggesting a treatment plan different from these general treatment options. Don’t hesitate to ask him or her questions about your treatment options.*

**Surgery for Anal Cancer**

Surgery is not usually the first option for most people with anal cancer. In people who do need surgery, the type of operation depends on the type and location of the tumor.

**Local resection**

A local resection is an operation that removes only the tumor, plus a small margin of the
normal tissue around the tumor. It is used most often to treat cancers of the anal margin if the cancer is small and has not spread to nearby tissues or lymph nodes.

In most cases, local resection preserves the sphincter (the muscular ring that opens and closes the anus). This allows a person to move their bowels normally after the surgery.

**Abdominoperineal resection**

An abdominoperineal resection (APR) is an extensive operation. The surgeon makes one incision in the abdomen (belly), and another around the anus to remove the anus and the rectum. The surgeon may also take out some of the nearby groin lymph nodes during this operation, although this step (called a lymph node dissection) can also be done later.

The anus (and the anal sphincter) is removed, so a new opening needs to be made to let stool leave the body. The end of the colon is attached to a small opening in the abdomen, which is called a colostomy, or an ostomy. A bag to collect the feces is attached to the body over the opening.

An APR was often done in the past for cancers of the anal canal, but it can almost always be avoided as the first treatment by using radiation therapy and chemotherapy instead. APR is now more often used as an option if other treatments don't get rid of the cancer or if the cancer comes back after treatment.

**Possible risks and side effects of surgery**

Potential side effects of surgery depend on several factors, including the extent of the operation and the person’s health before surgery. Most people will have at least some pain after the operation, but it usually can be controlled with medicines if needed. Other problems can include reactions to anesthesia, damage to nearby organs during the operation, bleeding, blood clots in the legs, and skin infections at the incision sites.

After an APR, you might develop scar tissue (called adhesions) in the abdomen that can cause organs or tissues to stick together. This can sometimes cause pain or problems with food moving through the intestines, which can lead to digestive problems. If you have cramping, bloating, changes in bowel habits, or nausea and vomiting, be sure to tell your doctor.

People need a permanent colostomy after an APR. This can take some time to get used to and may require some lifestyle adjustments. If you have a colostomy, you'll need help learning how to manage it. A specially trained wound, ostomy, continence nurse
(WOCN) or enterostomal therapist will usually see you in the hospital before your surgery to discuss the ostomy and to mark a site for the opening. They can help you after the operation as well. For more information, see Colostomy Guide.

If you are a man, an APR may stop your erections or ability to reach orgasm, or your pleasure at orgasm may become less intense. An APR can also damage the nerves that control ejaculation, leading to “dry” orgasms (orgasms without semen).

If you are a woman, APR usually does not cause a loss of sexual function, but abdominal adhesions (scar tissue) may sometimes cause pain during sex.

A colostomy can have an impact on body image and sexual comfort level in both men and women. While it may require some adjustments, it shouldn’t prevent you from having an enjoyable sex life.

More information on dealing with the sexual impact of cancer and its treatment is available in Sexuality for the Man With Cancer and Sexuality for the Woman With Cancer.

For more general information about surgery for cancer treatment, see our section on Cancer Surgery.

- References
See all references for Anal Cancer

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**Radiation Therapy for Anal Cancer**

Radiation therapy uses a beam of high-energy rays (or particles) to destroy cancer cells or slow their rate of growth. Radiation therapy can be used:

- As part of the main treatment (along with chemotherapy) for most anal cancers
- After surgery if the doctor is concerned that all of the cancer might not have been removed
To help treat cancer that has returned in the lymph nodes after initial treatment
To help control advanced cancer or to relieve symptoms it causes

There are 2 main forms of radiation therapy: external beam and internal radiation (brachytherapy).

**External-beam radiation therapy (EBRT)**

The most common way for anal cancer to be treated with radiation is with a focused beam of radiation from a machine outside the body. This is known as *external-beam radiation therapy*.

Radiation can harm nearby healthy tissue along with the cancer cells. To reduce the risk of side effects, doctors carefully figure out the exact dose you need and aim the beams as accurately as they can. Before your treatments start, the radiation team will get CT or MRI scans of the area to be treated to help figure this out. Radiation therapy is much like getting an x-ray, but the radiation is stronger. The procedure itself is painless. Each treatment lasts only a few minutes, although the setup time – getting you into place for treatment – usually takes longer. Treatments are usually given 5 days a week for a period of 5 weeks or so.

Doctors often use newer techniques that let them give higher doses of radiation to the cancer while reducing the radiation exposure to nearby healthy tissues.

**Three-dimensional conformal radiation therapy (3D-CRT)** uses special computers to precisely map the location of your cancer. Radiation beams are then shaped and aimed at the tumor from several directions, which makes them less likely to damage normal tissues. You will most likely be fitted with a plastic mold resembling a body cast to keep you in the same position each day so that the radiation can be aimed more accurately. This method seems to be at least as effective as standard radiation therapy for anal cancer and may have lower side effects.

**Intensity-modulated radiation therapy (IMRT)** is an advanced form of 3D therapy. It uses a computer-driven machine that actually moves around the patient as it delivers radiation. In addition to shaping the beams and aiming them from several angles, the intensity (strength) of the beams can be adjusted to limit the dose reaching the most sensitive normal tissues. This lets doctors deliver an even higher dose to the cancer areas. It is available at many major hospitals and cancer centers.

**Side effects of external radiation therapy**

Side effects vary based on the area of the body treated and the dose of radiation given.
Some common short-term side effects include:

- Skin changes (like a sunburn) in areas being treated
- Temporary anal irritation and pain
- Discomfort during bowel movements
- Fatigue
- Nausea
- Diarrhea

In women, radiation may irritate the vagina. This can lead to discomfort and drainage (a discharge).

These side effects often improve after radiation stops.

Long-term side effects can also occur:

- Damage to anal tissue by radiation may cause scar tissue to form. This can sometimes keep the anal sphincter from working as it should, which could lead to problems having bowel movements.
- Radiation to the pelvis can weaken the bones, increasing the risk of fractures of the pelvis or hip.
- Radiation can damage blood vessels that nourish the lining of the rectum and lead to chronic radiation proctitis (inflammation of the lining of the rectum). This can cause rectal bleeding and pain.
- Radiation can affect fertility (the ability to have children) in both women and men. (For more information, see Fertility and Men With Cancer and Fertility and Women With Cancer.)
- Radiation can lead to vaginal dryness and even a narrowing or shortening of the vagina (called vaginal stenosis), which can make sex painful. A woman can help prevent this problem by stretching the walls of her vagina several times a week. This can be done using a vaginal dilator (a plastic or rubber tube used to stretch out the vagina). (For more information, see Sexuality for the Woman With Cancer.)
- If radiation is given to the lymph nodes in the groin, it can lead to problems with abnormal swelling in the legs, called lymphedema. (For more information, see For People at Risk of Lymphedema.)

**Internal radiation (brachytherapy)**

Another method of delivering radiation is to place small sources of radioactive materials in or near the tumor. This method, called *internal radiation, brachytherapy, interstitial*
radiation, or intracavitary radiation, concentrates the radiation in the area of the cancer. Internal radiation is used much less often than external-beam radiation therapy to treat anal cancer. When it is used, it is usually given along with external radiation.

The radiation may be given by implanting permanent radioactive pellets, or “seeds,” which release their dose slowly over time, or by other techniques where the radioactive substance is placed in the body for only a brief period. Internal radiation can be more convenient because it is usually done in only one or a few sessions, but it may require some type of surgery.

The possible side effects are often similar to those seen with external radiation.

More information on radiation as a treatment for cancer can be found in the Radiation Therapy section of our website.

- References
  See all references for Anal Cancer

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Chemotherapy for Anal Cancer

Chemotherapy (chemo) uses drugs to treat cancer. Some drugs can be swallowed in pill form, while others need to be injected into a vein or muscle. The drugs enter the bloodstream to reach and destroy the cancer cells throughout the body. This makes chemo a systemic or “whole body” treatment.

To treat anal cancer, chemo can be:

- Combined with radiation therapy (known as chemoradiation) as the first treatment for most anal cancers, which can often cure the cancer without the need for surgery. If the cancer doesn’t go away completely after chemoradiation, more chemo might be given.
- Given (along with radiation) after surgery to try to destroy any cancer cells that were left behind because they were too small to see. This is called adjuvant therapy. It is
meant to lower the chance of the cancer coming back.

- Used if anal cancer has spread to distant parts of the body, such as the liver or lungs. This can help keep the cancer under control or relieve symptoms it is causing.

Chemotherapy often uses 2 or more drugs because one drug can boost the effect of the other. The main drug combination used to treat anal cancer is 5-fluorouracil (5-FU) and mitomycin. The combination of 5-FU and cisplatin is also used fairly often, especially for advanced anal cancer.

**Side effects of chemotherapy**

Chemo drugs attack cells that are dividing quickly, which is why they work against cancer cells. But other cells in the body, such as those in the bone marrow (where new blood cells are made), the lining of the mouth and intestines, and the hair follicles, also divide quickly. These cells are also likely to be affected by chemo, which can lead to side effects. Side effects depend on the specific drugs, the amount taken, and the length of treatment. Common short-term side effects might include:

- Nausea and vomiting
- Loss of appetite
- Hair loss
- Diarrhea
- Mouth sores

Because chemo can damage the blood-producing cells of the bone marrow, patients may have **low blood cell counts**. This can result in:

- An increased chance of infection (due to a shortage of white blood cells)
- Bleeding or bruising after minor cuts or injuries (due to a shortage of blood platelets)
- Fatigue or shortness of breath (due to low red blood cell counts)

Along with the risks above, some chemo drugs can cause other, less common side effects. For example, cisplatin cause nerve damage (called *peripheral neuropathy*). This can lead to problems with numbness, tingling, or pain in the hands and feet.

Most side effects improve once treatment is stopped, but some can last a long time or even be permanent. If your doctor plans treatment with chemo, be sure to discuss the drugs that will be used and their possible side effects.

If you get chemo, **tell your doctor or nurse about any side effects as soon as you notice them**. Your cancer care team can help you deal with them. For example, anti-
nausea drugs can help control nausea and vomiting. Sometimes changing the treatment dosage or how you take your medicines can reduce side effects. Most side effects will stop when your course of treatment ends.

For more information about chemotherapy, see the Chemotherapy section of our website.

- References
See all references for Anal Cancer

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**Treatment of Anal Cancer, by Stage**

The type of treatment your cancer care team will recommend depends on the type of anal cancer, where it is, and how far it has spread. This section sums up the options for anal cancer treatment according to the stage (extent) of disease.

Anal tumors affecting the anal margin or the perianal skin (and not the anal canal) are sometimes treated differently from anal canal cancers.

**Stage 0**

At this stage, the cancer is still only in the inner lining of the anus and has not grown into deeper layers. Anal cancers are not usually found at this early stage.

Stage 0 tumors can often be removed completely by surgery (local resection). Radiation therapy and chemotherapy (chemo) are rarely needed.

**Stages I and II**

These cancers have grown into the anal wall but have not yet grown into nearby organs or spread to the lymph nodes.
Surgery (local resection) can be used to remove some small tumors (usually less than 1 centimeter or ½ inch) that do not involve the sphincter. In some cases, this may be followed with chemo and radiation therapy.

The standard treatment for anal cancers that can’t be removed without harming the anal sphincter is radiation therapy combined with chemo (chemoradiation). In chemoradiation, the 2 treatments are given over the same time period. The chemo usually consists of 5-FU with mitomycin C. The mitomycin is given as a short intravenous (IV) injection, usually at the start of radiation treatment and then again near the end, at around 4 to 6 weeks. The 5-FU is often given by a long IV infusion over 4 to 5 days and repeated in 4 to 6 weeks. In some cases, your doctor may suggest internal radiation along with the external beam radiation.

If the cancer hasn’t gone away completely after the chemoradiation has been completed, more treatment might be needed. But it is important to know that it may still take several months to see the full effects of treatment on the cancer. Doctors may watch any remaining cancer for up to 6 months, as it may continue to shrink and even go away without further treatment.

If further treatment is needed, sometimes additional chemo (with or without extra radiation) may be given to try to shrink any remaining cancer. The drugs most often used are 5-FU plus cisplatin. Another option would be surgery to remove the remaining cancer. This is most often an extensive operation known as an abdominoperineal resection (APR), but sometimes only a local resection might be needed.

**Stages IIIA and IIIB**

These cancers have grown into nearby organs or reached nearby lymph nodes, but they have not spread to distant parts of the body.

In most cases, the first treatment will be radiation therapy combined with chemo (chemoradiation). In chemoradiation, both treatments are given over the same time period. The chemo usually consists of 5-FU with mitomycin C. The mitomycin is given as a short intravenous (IV) injection, usually at the start of radiation treatment and then again near the end, at around 4 to 6 weeks. The 5-FU is often given by a long IV infusion over 4 to 5 days and repeated in 4 to 6 weeks. In some cases, your doctor may suggest internal radiation along with the external beam radiation.

If some cancer remains after the chemoradiation, it may be watched closely for up to 6 months because it could still take several months to see the full effects of treatment on the cancer. If the cancer gets larger, more treatment is needed. Some patients are
given more chemo. The drugs most often used are 5-FU plus cisplatin. Sometimes more radiation is given as well (this is called a radiation boost). Another option is to remove the cancer with surgery. This is most often an extensive operation known as an abdominoperineal resection (APR), but sometimes only a local resection is needed. If the cancer has spread to local lymph nodes, these may be removed with surgery or treated with radiation therapy.

Stage IIIB anal cancer can be hard to treat, so patients with this stage might be helped by taking part in a clinical trial.

**Stage IV**

In this stage, the cancer has spread to distant organs or tissues. Most often, anal cancer first spreads to the lungs, liver, brain, or bones, but it can spread anywhere.

Treatment is very unlikely to cure these cancers. Treatment is aimed at controlling the disease for as long as possible and relieving symptoms as much as possible. Chemotherapy, sometimes along with radiation, is usually the standard treatment. The drugs most often used are 5-FU and cisplatin. Surgery might also be an option in some cases, but before having any surgery it’s important that you understand its goal (to prolong life, relieve symptoms, etc.) and the possible risks and side effects.

Because these cancers can be hard to treat, people might also want to think about taking part in a clinical trial of newer treatments.

**Anal melanoma**

Melanoma doesn’t respond well to chemotherapy or radiation, so surgery to remove the cancer is the main treatment when possible. Early stage anal melanomas are treated with surgery to remove the tumor and a rim of surrounding normal tissue (local excision). If the tumor is large or has grown into deeper tissues (such as the sphincter muscle) a bigger operation, such as an abdominoperineal resection (APR) may be needed.

If the melanoma has spread to other organs, it is treated like skin melanoma that has spread, often with immunotherapy or targeted therapy drugs. For more information about the treatment of advanced melanoma, see *Melanoma Skin Cancer*.

**Recurrent anal cancer**
Cancer is called *recurrent* when it comes back after treatment. *Recurrence* can be local (in or near the same place it started) or distant (spread to organs such as the lungs or bone).

If cancer returns in the anus or nearby lymph nodes after treatment, treatment depends on what treatment you had the first time. For example, if you had surgery alone, you may receive radiation therapy and chemo (chemoradiation). If you first had chemoradiation, then you can be treated with surgery and/or chemo. Treating recurrent anal cancer often requires an abdominoperineal resection (APR).

In some people, the cancer will come back in distant sites or organs in the body. The most common sites are the liver and lungs. The main treatment for this is usually chemo. The typical chemo drugs used are 5-FU and cisplatin. Chemo might not cure the cancer, but it can often help control it and reduce any symptoms it is causing. In rare cases surgery or radiation therapy might be options to help treat these cancers. But as with chemo, they are unlikely to cure these cancers, so be sure you understand the goal of these treatments if they are offered.

Clinical trials of newer treatments might also be useful for people with recurrent anal cancer.

**HIV-infected patients**

Most people with HIV infection can be given the same treatment as others with anal cancer, and they can have a good outcome. Patients who have advanced HIV disease and weakened immune systems may need to have less intensive chemotherapy.

- References

See all references for Anal Cancer

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After Treatment

Living as a Cancer Survivor

For many people, cancer treatment often raises questions about next steps as a survivor.

- **What Happens After Treatment for Anal Cancer?**
- **Lifestyle Changes After Treatment for Anal Cancer**
- **How Might Having Anal Cancer Affect Your Emotional Health?**

**Cancer Concerns After Treatment**

Treatment may remove or destroy the cancer, but it is very common to have questions about cancer coming back or treatment no longer working.

- **Can I Get Another Cancer After Having Anal Cancer?**
- **Can I Lower the Risk of My Anal Cancer Progressing or Coming Back?**
- **If Treatment for Anal Cancer Stops Working**

**What Happens After Treatment for Anal Cancer?**

For some people with anal cancer, treatment can remove or destroy the cancer. Completing treatment can be both stressful and exciting. You might be relieved to finish treatment, but find it hard not to worry about the cancer coming back. (When cancer comes back after treatment, it is called *recurrence.*) This is a very common concern in people who have had cancer. It may take a while before your fears lessen. But it may help to know that many cancer survivors have learned to live with this uncertainty and are leading full lives.
For other people, the cancer might never go away completely. These people may get regular treatments with chemotherapy, radiation therapy, or other therapies to help keep the cancer in check. Learning to live with cancer that does not go away can be difficult and very stressful. It has its own type of uncertainty. Managing Cancer as a Chronic Illness covers more information about this.

**Follow-up care**

When treatment ends, your doctors will still want to watch you closely. It is very important to go to all of your follow-up appointments. During these visits, your doctors will ask questions about any problems you may have and will do a physical exam, which will include a rectal exam, an exam of the anus, and an exam to see if any nearby lymph nodes are enlarged. Blood tests and imaging tests such as CT scans (described in the section “How is anal cancer diagnosed?”) may also be ordered.

Almost any cancer treatment can have side effects. Some may last for a few weeks to months, but others can last the rest of your life. This is the time for you to talk to your cancer care team about any changes or problems you notice and any questions or concerns you have.

Follow-up doctor visits after treatment may be scheduled as often as every 3 months for at least 2 years, and then possibly less often after this.

Close follow-up is extremely important in the first several months after treatment with chemoradiation, especially if not all of the cancer is gone. Some tumors continue to shrink after treatment, so the doctor will want to watch the cancer closely during this time to see if further treatment might still be needed.

It’s also very important to keep health insurance. Tests and doctor visits cost a lot, and even though no one wants to think of their cancer coming back, this could happen.

Should your cancer come back, treatment will depend on where it is, what treatments you’ve had before, and your overall health. For more information on how recurrent cancer is treated, see the section “Treatment of anal cancer by stage.” For information on how to manage and cope with this phase of your treatment, see the section Understanding Recurrence.

**For patients with colostomies**

Most people treated for anal cancer don’t need extensive surgery (known as an
abdominoperineal resection, or APR). But if you do have an APR, you will need to have a permanent colostomy.

If you have a colostomy, follow-up is important. You might feel worried or isolated from normal activities. A wound, ostomy, continence nurse (WOCN) or enterostomal therapist (a health care professional trained to help people with their colostomies) can teach you how to care for your colostomy. You can also ask the American Cancer Society about programs offering information and support in your area. For more information on colostomies, see [Colostomy Guide](#).

**Seeing a new doctor**

At some point after your cancer diagnosis and treatment, you might find yourself seeing a new doctor who won’t know anything about your medical history. It’s important that you be able to give your new doctor the details of your diagnosis and treatment. Gathering these details during and soon after treatment may be easier than trying to get them at some point in the future. Make sure you have the following information handy, and always keep copies for yourself:

- A copy of your pathology report(s) from any biopsies or surgeries
- If you had surgery, a copy of your operative report(s)
- If you stayed in the hospital, a copy of the discharge summary that the doctor prepared when you were sent home
- If you were treated with radiation, a copy of the treatment summary
- If you were treated with chemotherapy (or other drugs), a list of your drugs, their doses, and when you took them
- Copies of imaging tests (CT or MRI scans, etc.), which can usually be stored digitally (on a DVD, etc.)
- The names and contact information of the doctors who treated your cancer

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Lifestyle Changes After Treatment for Anal Cancer

You can’t change the fact that you’ve had cancer. What you can change is how you live the rest of your life – making choices to help you stay healthy and feel as well as you can. This can be a time to look at your life in new ways. Maybe you’re thinking about how to improve your health over the long term. Some people even start during cancer treatment.

Making healthier choices

For many people, a diagnosis of cancer helps them focus on their health in ways they may not have thought much about in the past. Are there things you could do that might make you healthier? Maybe you could try to eat better or get more exercise. Maybe you could cut down on alcohol, or give up tobacco. Even things like keeping your stress level under control may help. Now is a good time to think about making changes that can have positive effects for the rest of your life. You will feel better and you will also be healthier.

You can start by working on those things that worry you most. Get help with those that are harder for you. For instance, if you are thinking about quitting smoking and need help, call the American Cancer Society for information and support at 1-800-227-2345.

Eating better

Eating right can be hard for anyone, but it can get even tougher during and after cancer treatment. Treatment may change your sense of taste. Nausea can be a problem. You may not feel like eating and lose weight when you don’t want to. Or you may have gained weight that you can’t seem to lose. All of these things can be very frustrating.

If treatment causes weight changes or eating problems, do the best you can and keep in mind that these problems usually get better over time. You may find it helps to eat small portions every 2 to 3 hours until you feel better. You may also want to ask your cancer team about seeing a dietitian, an expert in nutrition who can give you ideas on how to deal with these treatment side effects.

One of the best things you can do after cancer treatment is put healthy eating habits into place. You may be surprised at the long-term benefits of some simple changes, like increasing the variety of healthy foods you eat. Getting to and staying at a healthy
weight, eating a healthy diet, and limiting your alcohol intake may lower your risk for a
number of types of cancer, as well as having many other health benefits.

For more information, see our document *Nutrition and Physical Activity During and After Cancer Treatment: Answers to Common Questions*.

**Rest, fatigue, and exercise**

Extreme tiredness, called *fatigue*, is very common in people treated for cancer. This is
not a normal tiredness, but a bone-weary exhaustion that often doesn't get better with
rest. For some people, fatigue lasts a long time after treatment, and can make it hard for
them to be active and do the things they want to do. But exercise can help reduce fatigue.
Studies have shown that patients who follow an exercise program tailored to their
personal needs feel better physically and emotionally and can cope better, too.

If you were sick and not very active during treatment, it's normal for your fitness,
endurance, and muscle strength to decline. Any plan for physical activity should fit your
own situation. A person who has never exercised will not be able to take on the same
amount of exercise as someone who plays tennis twice a week. If you haven't been
active in a few years, you will have to start slowly – maybe just by taking short walks.

Talk with your health care team before starting anything. Get their opinion about your
exercise plans. Then, try to find an exercise buddy so you're not doing it alone. Having
family or friends involved when starting a new activity program can give you that extra
boost of support to keep you going when the push just isn't there.

If you are very tired, you will need to learn to balance activity with rest. It's OK to rest
when you need to. Sometimes it's really hard for people to allow themselves to rest
when they are used to working all day or taking care of a household, but this is not the
time to push yourself too hard. Listen to your body and rest when you need to. (For
more information on dealing with fatigue, please see *Fatigue in People With Cancer* and
*Anemia in People With Cancer*.)

Keep in mind exercise can improve your physical and emotional health.

- It improves your cardiovascular (heart and circulation) fitness.
- Along with a good diet, it will help you get to and stay at a healthy weight.
- It makes your muscles stronger.
- It reduces fatigue and helps you have more energy.
- It can help lower anxiety and depression.
- It can make you feel happier.
It helps you feel better about yourself. And long term, we know that getting regular physical activity plays a role in helping to lower the risk of some cancers, as well as having other health benefits.

References
See all references for Anal Cancer

Can I Get Another Cancer After Having Anal Cancer?

Cancer survivors can be affected by a number of health problems, but often their greatest concern is facing cancer again. If a cancer comes back after treatment it is called a “recurrence.” But some cancer survivors may develop a new, unrelated cancer later. This is called a “second cancer.” No matter what type of cancer you have had, it is still possible to get another (new) cancer, even after surviving the first.

Unfortunately, being treated for cancer doesn’t mean you can’t get another cancer. People who have had cancer can still get the same types of cancers that other people get. In fact, certain types of cancer and cancer treatments can be linked to a higher risk of certain second cancers.

Survivors of anal cancer can still get any type of second cancer, but they have an increased risk of

- Cancer of the tongue
- Cancer of the tonsil
- Vaginal cancer
- Vulvar cancer
- Lung cancer
- Kaposi sarcoma

Patients diagnosed with anal cancer before age 50 also have an increased risk of non-
Hodgkin lymphoma.

Anal cancer is linked to infection with human papilloma virus (HPV), and many of these cancers (cancers of the tongue, tonsil, vulva, and vagina) are also linked to HPV infection.

**Follow-up after treatment**

After completing treatment for anal cancer, you should see your doctor regularly to look for signs that the cancer has come back or spread. Experts do not recommend any additional testing to look for second cancers in patients without symptoms. Let your doctor know about any new symptoms or problems, because they could be caused by the cancer coming back or by a new disease or second cancer.

Survivors of anal cancer should follow the American Cancer Society guidelines for the early detection of cancer and stay away from tobacco products. Smoking increases the risk of many cancers and might further increase the risk of many of the second cancers seen after anal cancer.

To help maintain good health, survivors should also:

- Achieve and maintain a healthy weight
- Adopt a physically active lifestyle
- Consume a healthy diet, with an emphasis on plant foods
- Limit consumption of alcohol to no more than 1 drink per day for women or 2 per day for men

These steps may also lower the risk of some cancers.

See Second Cancers in Adults for more information about causes of second cancers.

- References

See all references for Anal Cancer

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Can I Lower the Risk of My Anal Cancer Progressing or Coming Back?

Most people want to know if there are specific lifestyle changes they can make to reduce their risk of the cancer progressing or coming back. Unfortunately, for most cancers there isn’t much solid evidence to guide people. This doesn’t mean that nothing will help – it’s just that for the most part this is an area that hasn’t been well studied. Most studies have looked at lifestyle changes as ways of preventing cancer in the first place, not slowing it down or preventing it from coming back.

At this time, not enough is known about anal cancer to say for sure if there are things you can do that will help. Tobacco use has clearly been linked to anal cancer, so not smoking may help reduce your risk. We don’t know for sure if this will help, but we do know that it can help improve your appetite and overall health. It can also reduce the chance of developing other types of cancer. If you want to quit smoking and need help, call your American Cancer Society at 1-800-227-2345, or read our Guide to Quitting Smoking.

For people infected with HIV, it’s very important to do what you can to keep your immune system healthy and to limit your risk of infections. This includes being sure to take your antiviral medicines regularly. Talk with your doctor about getting vaccines and other steps you can take to help prevent infections.

Adopting other healthy behaviors such as eating well, getting regular physical activity, and staying at a healthy weight might help as well, but no one knows for sure. However, we do know that these types of changes can have positive effects on your health that can extend beyond your risk of cancer.

So far, no dietary supplements of any kind have been shown to clearly help lower the risk of anal cancer progressing or coming back. Again, this doesn’t necessarily mean that none will help, but it’s important to understand that none have been proven to do so.

References

See all references for Anal Cancer
How Might Having Anal Cancer Affect Your Emotional Health?

During and after treatment, you may find yourself overcome with many different emotions. This happens to a lot of people.

You may find yourself thinking about death and dying. Or maybe you’re more aware of the effect the cancer has on your family, friends, and career. You may take a new look at your relationships with those around you. Unexpected issues may also cause concern. For instance, you might be stressed by financial concerns resulting from your treatment. You might also see your health care team less often and have more time on your hands. These changes can make some people anxious.

Almost everyone who has been through cancer can benefit from getting some type of support. You need people you can turn to for strength and comfort. Support can come in many forms: family, friends, cancer support groups, church or spiritual groups, online support communities, or one-on-one counselors. What’s best for you depends on your situation and personality. Some people feel safe in peer-support groups or education groups. Others would rather talk in an informal setting, such as church. Others may feel more at ease talking one-on-one with a trusted friend or counselor. Whatever your source of strength or comfort, make sure you have a place to go with your concerns.

The cancer journey can feel very lonely. It’s not necessary or good for you to try to deal with everything on your own. And your friends and family may feel shut out if you do not include them. Let them in, and let in anyone else who you feel may help. If you aren’t sure who can help, call your American Cancer Society at 1-800-227-2345 and we can put you in touch with a group or resource that may work for you.

• References

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If Treatment for Anal Cancer Stops Working

If cancer keeps growing or comes back after one kind of treatment, it's possible that another treatment plan might still cure the cancer, or at least keep it under control enough to help you live longer and feel better. Clinical trials also might offer chances to try newer treatments that could be helpful. But when a person has tried many different treatments and the cancer has not gotten any better, even newer treatments might no longer be helpful. If this happens, it's important to weigh the possible limited benefits of trying a new treatment against the possible downsides, including side effects. Everyone has their own way of looking at this.

This is likely to be the hardest part of your battle with cancer – when you have been through many treatments and nothing's working anymore. Your doctor might offer you new options, but at some point you may need to consider that treatment is not likely to improve your health or change your outcome or survival.

If you want to continue to get treatment for as long as you can, you need to think about the odds of treatment having any benefit and how this compares to the possible risks and side effects. Your doctor can estimate how likely it is the cancer will respond to treatment you're considering. For instance, the doctor may say that more treatment might have about a 1 in 100 chance of working. Some people are still tempted to try this. But it's important to have realistic expectations if you do choose this plan.

Palliative care

No matter what you decide to do, it's important to feel as good as you can. Make sure you are asking for and getting treatment for any symptoms you might have, such as nausea or pain. This type of treatment is called palliative care.

Palliative care helps relieve symptoms, but is not expected to cure the disease. It can be given along with cancer treatment, or can even be cancer treatment. The difference is its purpose – the main goal of palliative care is to improve the quality of your life, or help you feel as good as you can for as long as you can. Sometimes this means using drugs to help with symptoms like pain or nausea. Sometimes, though, the treatments used to control your symptoms are the same as those used to treat cancer. For instance, radiation might be used to help relieve pain caused by cancer that has spread.
to the bones. Or chemo might be used to help shrink a tumor and keep it from blocking the bowels. But this is not the same as treatment to try to cure the cancer.

**Hospice care**

At some point, you may benefit from hospice care. This is special care that treats the person rather than the disease; it focuses on quality rather than length of life. Most of the time, it’s given at home. Your cancer may be causing problems that need to be managed, and hospice focuses on your comfort. You should know that while getting hospice care often means the end of treatments such as chemo and radiation, it doesn’t mean you can’t have treatment for the problems caused by your cancer or other health conditions. In hospice the focus of your care is on living life as fully as possible and feeling as well as you can at this difficult time.

Staying hopeful is important, too. Your hope for a cure may not be as bright, but there’s still hope for good times with family and friends – times that are filled with happiness and meaning. Pausing at this time in your cancer treatment gives you a chance to refocus on the most important things in your life. Now is the time to do some things you’ve always wanted to do and to stop doing the things you no longer want to do. Though the cancer may be beyond your control, there are still choices you can make.

You can learn more about the changes that occur when treatment stops working, and about planning ahead for yourself and your family, in *Advance Directive* and *Nearing the End of Life*. You can read them online or call us at 1-800-227-2345 to have free copies mailed to you.

- References
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