



## Anal Cancer Overview

The information that follows is an overview of this type of cancer. It is based on the more detailed information in our document, *Anal Cancer*. This document and other information can be obtained by calling 1-800-227-2345 or visiting our Web site at [www.cancer.org](http://www.cancer.org).

### What is cancer?

The body is made up of trillions of living cells. Normal body cells grow, divide, and die in an orderly way. During the early years of a person's life, normal cells divide faster to allow the person to grow. After the person becomes an adult, most cells divide only to replace worn-out, damaged, or dying cells.

Cancer begins when cells in a part of the body start to grow out of control. There are many kinds of cancer, but they all start because of this out-of-control growth of abnormal cells.

Cancer cell growth is different from normal cell growth. Instead of dying, cancer cells keep on growing and form new cancer cells. These cancer cells can grow into (invade) other tissues, something that normal cells cannot do. Being able to grow out of control and invade other tissues is what makes a cell a cancer cell.

In most cases the cancer cells form a tumor. But some cancers, like leukemia, rarely form tumors. Instead, these cancer cells are in the blood and bone marrow.

When cancer cells get into the bloodstream or lymph vessels, they can travel to other parts of the body. There they begin to grow and form new tumors that replace normal tissue. This process is called *metastasis* (muh-**tas**-tuh-sis).

No matter where a cancer may spread, it is always named for the place where it started. For instance, breast cancer that has spread to the liver is still called breast cancer, not liver cancer. Likewise, prostate cancer that has spread to the bone is called metastatic prostate cancer, not bone cancer.

Different types of cancer can behave very differently. For example, lung cancer and breast cancer are very different diseases. They grow at different rates and respond to

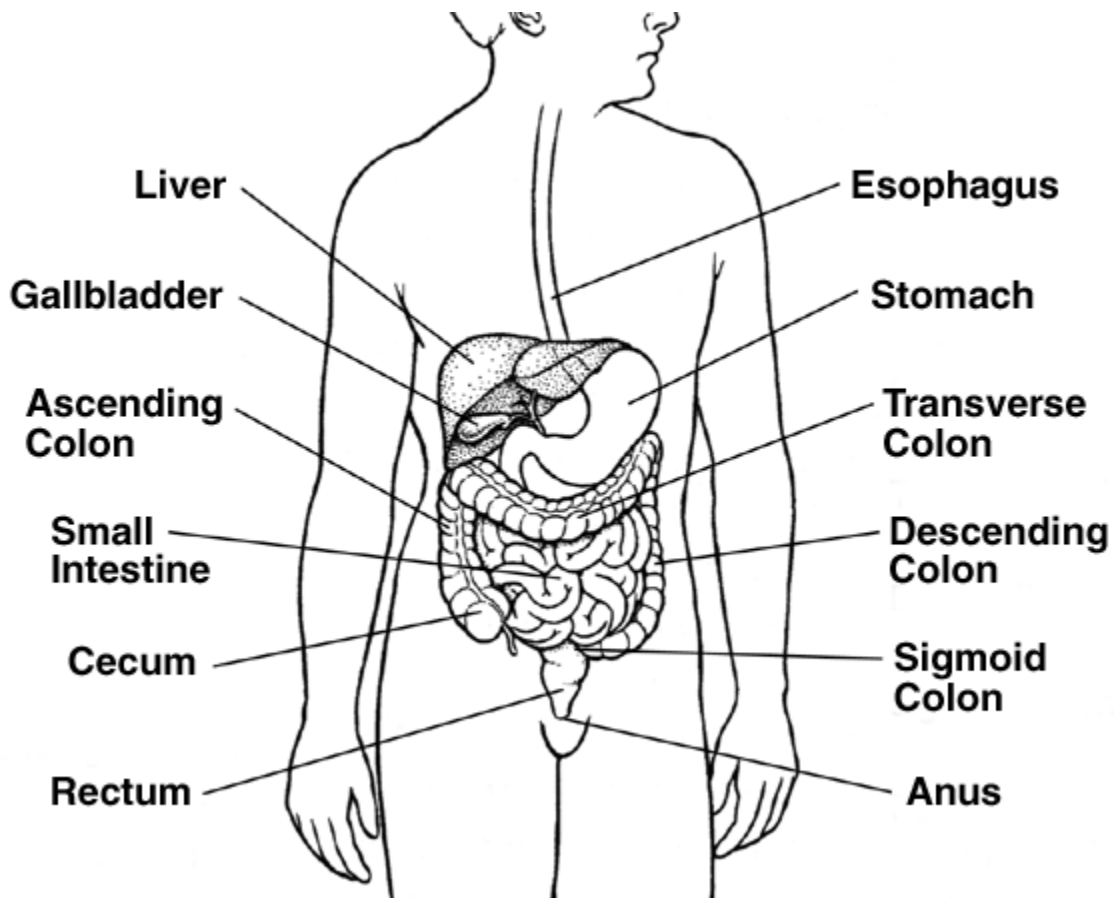
different treatments. That is why people with cancer need treatment that is aimed at their own kind of cancer.

Not all tumors are cancerous. Tumors that aren't cancer are called *benign* (be-**nine**). Benign tumors can cause problems-- they can grow very large and press on healthy organs and tissues. But they cannot grow into other tissues. Because of this, they also can't spread to other parts of the body (metastasize). These tumors are almost never life threatening.

## What is anal cancer?

### The anus

The anus is the body's opening at the lower end of the intestines. The anus is about an inch and a half long and connects the lower part of the large intestine to the outside of the body. It opens to allow the passage of stool (feces) during a bowel movement. It is lined with cells that are like the cells lining the bladder, vagina, urethra, and other places in the body. These cells are called *squamous cells*.



Many kinds of tumors can grow in the anus. Not all of these tumors are cancers -- some are *benign*, which means they are not cancer. There are also some growths that start off as benign but over time can change into cancer. These are called pre-cancerous conditions. A common term for these potentially pre-cancerous conditions is *dysplasia*. Some warts, for example, contain areas of dysplasia that can develop into cancer. Benign tumors include some kinds of warts and skin tags (small pieces of skin that hang loose from the body).

## Anal tumors that are cancer

**Carcinoma in situ:** Sometimes cells on the surface layer of the anus look like cancer cells but have not grown into any of the deeper layers. This is known as *carcinoma in situ*, (pronounced "in SY-too"), or *CIS*. It may also be called *Bowen disease*. Some doctors think this is the early form of anal cancer and others think it is a pre-cancer but not a true cancer.

**Squamous cell carcinomas:** These are the most common type of anal cancer. The tumors begin in the squamous cells that line the lower part of the anus and most of the anal canal. In its earliest stages it is known as carcinoma in situ or CIS. If it has spread beyond the surface cells to the deeper layers it is called invasive. If the tumors are found in the skin around the anus (perianal skin) they are treated like the squamous cell carcinomas of the skin found elsewhere in the body. To learn more, see our document, *Skin Cancer: Basal and Squamous Cell*.

*Cloacogenic carcinoma* is a type of squamous cell cancer that starts in an area of the anus called the cloaca. It is sometimes seen as a sub-type of squamous cell cancer, but is treated the same.

**Adenocarcinomas:** A small number of anal cancers start in cells that line the upper part of the anus near the rectum or the glands found in the anal area. These cancers are called adenocarcinomas. Paget disease is a type of adenocarcinoma that spreads through the surface layer of skin and can affect the anal area. (This should not be confused with Paget disease of the bone which is a very different disease.)

Most adenocarcinomas start in the rectum and are treated as rectal carcinomas. For more information on this, see our document, *Colorectal Cancer*.

**Skin cancers:** A small percentage of anal cancers are basal cell carcinomas, a type of skin cancer. Another 1%-2% are melanomas, another type of skin cancer. Melanomas are far more common on parts of the body that are exposed to the sun. Most anal melanomas are hard to see and are found at a late stage. To learn more, please see our documents, *Skin Cancer: Basal and Squamous Cell* and *Melanoma Skin Cancer*.

**Gastrointestinal stromal tumors:** These are rare anal cancers that are more often found in the stomach or small intestine. When these are found at an early stage, they are removed with surgery. If they have spread beyond the anus, they can be treated with drugs. To learn more, see our document, *Gastrointestinal Stromal Tumor (GIST)*.

# How many people get anal cancer?

The American Cancer Society's most recent estimates for anal cancer in the United States are for 2012:

- About 6,230 new cases of anal cancer
- About 780 deaths from anal cancer

Women get anal cancer slightly more often than men. Anal cancer is found mainly in adults, with the average age being in the early 60s. While anal cancer is a serious disease, treatment often works very well. Most people with this cancer can be cured.

# What are the risk factors for anal cancer?

A risk factor is anything that affects a person's chance of getting a disease. Although the exact cause of anal cancer is not known, most anal cancers seem to be linked to infection with HPV (human papilloma virus). Still, most people with HPV infections *do not* get anal cancer. The risk factors for anal cancer are listed below. But risk factors don't tell us everything. Having a risk factor, or even several risk factors, does not mean that you will get cancer. Also, people without risk factors can still get cancer.

## Risk factors for anal cancer

### HPV (human papilloma virus)

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 who have had cervical cancer (or pre-cancer) have an increased risk of anal cancer.

HPV is a group of more than 100 related viruses. There are several subtypes of the virus, but the one most likely to cause anal cancer is called HPV-16. HPV-16, as well as HPV-18, HPV-31, HPV-33, and HPV-45 are called 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.

The virus is spread 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 intercourse, anal intercourse, and oral sex.

Infection with HPV is common, and in most cases the body is able to clear up on its own. But in some cases the infection does not go away and becomes long lasting (chronic). Chronic infection can eventually cause certain cancers, including anal cancer.

For men, the 2 main factors that impact the risk of genital HPV infection are circumcision and the number of sex partners. Men who are circumcised (have had the foreskin of the penis removed) have a **lower** chance of getting and staying infected with HPV. The risk

of being infected with HPV is also strongly linked to having many sex partners (over a man's lifetime).

For women, certain factors have been linked to an increased risk of genital HPV infection. These include:

- Starting to have sex at an early age
- Having many sex partners
- Having sex with a partner who has had many other partners
- Having sex with uncircumcised males

In a study that looked at risk factors for anal HPV infection in women, risk was increased in younger women and in those who had more than 5 sexual partners in their lifetime. Ever having anal sex also increased risk.

Condoms can provide some protection against HPV, but they do not always prevent infection.

## **Other cancers**

Ever having cancer of the cervix, vagina, or vulva is linked to an increased risk of anal cancer. This is likely because these cancers are also caused by infection with HPV.

## **HIV infection**

People who have the human immunodeficiency virus (HIV), the virus that causes AIDS, are much more likely to get anal cancer than those who don't. Drug treatment for HIV has lowered the risk for many AIDS-related diseases, but it hasn't lowered the anal cancer rate.

## **Sex**

Having many sex partners increases the risk of HIV and HPV infection. Having anal sex is a risk factor for anal cancer in both men and women, especially for those under the age of 30.

## **Smoking**

Harmful chemicals from smoke get into the bloodstream and increase the risk of anal cancer in smokers. Current smokers are several times more likely to have cancer of the anus compared with people who never smoked. Quitting smoking reduces this risk. People who used to smoke but have quit are only slightly more likely to get anal cancer compared with people who never smoked.

## **Weakened immune system**

People with weak immune systems are at higher risk for anal cancer. This includes people who have had transplants and who must take drugs to suppress their immune systems.

## **Race and gender**

Anal cancer is more common in African-Americans than in whites. Overall, it is more common in women than men, but in African Americans it is more common in men than in women.

## **Can anal cancer be prevented?**

Since some people with anal cancer have no known risk factors, there is no way to completely prevent this disease. But the best way to reduce the risk of anal cancer is to avoid HPV infection. While condoms (rubbers) can protect against HIV, recent research has shown that they do not offer complete protection. That is because this virus can be spread by skin contact from areas that are not covered by the condom. People can have HPV for years without having any symptoms. So it can be nearly impossible to know whether a sex partner is infected with HPV.

A vaccine called Gardasil<sup>®</sup> can help protect against infection with HPV subtypes 16 and 18 (as well as 6 and 11). At first it was only approved for use in women to prevent cervical cancer, but it has also been shown to prevent other cancers and pre-cancers caused by HPV. It was recently approved for use in both men and women to prevent anal cancers and pre-cancers.

Cervarix<sup>®</sup> is an HPV vaccine that can also be used to prevent infection with HPV types 16 and 18. Although it is only approved by the FDA to help prevent cervical cancers and pre-cancers, a recent study has shown that it is also helpful in preventing anal cancers and pre-cancers.

Stopping smoking also lowers the risk of many types of cancer, including anal cancer.

## **How is anal cancer found?**

Many cases of anal cancer can be found early. Anal cancers form in a part of the body that the doctor can see and reach easily. Sometimes anal cancer does not cause any symptoms at all. But a rectal exam will still find some cases early. For this exam (called a DRE), the doctor puts a gloved finger into the anus to feel for lumps or growths. A rectal exam may be used to check for prostate cancer in men. For women, the rectal exam is done as part of the pelvic exam. If you are at higher risk for anal cancer, ask your doctor if you should have this exam (or any other tests) more often.

Doctors can also test people at high risk for sexually transmitted diseases with a test called an anal Pap. It is much like the Pap smear done for cervical cancer. The anal lining

is swabbed and the cells are looked at under a microscope. Some doctors think that this test should be done routinely for people at high risk for anal cancer. That would include men who have sex with men, women who have had cervical cancer or vulvar cancer, all HIV-positive men and women, and all transplant patients. People with positive results should be referred for a biopsy and, depending on the results, treated.

## Signs and symptoms of anal cancer

Some cases of anal cancer have no symptoms at all. But people who do have symptoms of anal cancer may notice one or more of the following:

- Bleeding or itching around the anus
- Pain in the anal area
- Change in the width of the stool (stool may be narrower than usual)
- Swollen lymph nodes in the anal or groin area
- Abnormal discharge from the anus

These symptoms can also be caused by something other than cancer, but only your doctor can tell for sure. Talk to your doctor right away if you notice any of these problems.

## Tests for anal cancer

The doctor may feel a growth during a rectal exam. But since doctors cannot see what they feel, other steps may be needed if you have symptoms or if your doctor thinks you may have anal cancer.

### **Endoscopy**

Endoscopy is the use of a tube with a lens or video camera on the end (called a scope) to look inside the body. Endoscopy may be used to look for the cause of anal symptoms.

For these tests you either lie on your side on top of an exam table, with your knees bent up to your chest, or you bend forward over the table. The doctor coats the scope 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 and sometimes the lower part of the colon. This is usually not painful.

### **Biopsy**

In order to find out if a growth is cancer, a biopsy must be done. For a biopsy, the doctor will remove a sample of tissue and send it to a lab to be looked at under a microscope. For anal cancer, this tissue sample is most often removed during endoscopy. If the tumor is very small and has not grown below the surface of the anus, your doctor may be able to take out the whole tumor during the biopsy.

Other types of biopsies that may be done to look for cancer spread to the lymph nodes. They include:

**Fine-needle aspiration biopsy:** Since anal cancer can spread through the lymph system, your doctor may want to do a biopsy of your lymph nodes, too. Lymph nodes are bean-sized groups of immune system cells. Swollen lymph nodes are sometimes a sign of spreading cancer. Most often, though, they are a sign of infection. A small (fine) needle is placed into the swollen node. It is used to remove some cells and fluid that is then sent to the lab. In some cases, an operation to remove the lymph nodes near the anus may be done.

**Sentinel node biopsy:** In this test, a needle is used to put a radioactive substance, often with a blue dye, into the tumor. The dye moves into the nodes that carry fluid away from the tumor. This helps tell how far the cancer may have spread, because these nodes would be the ones that any cancer cells leaving the tumor would have spread to first. The surgeon then takes out any blue-stained nodes and looks at them to see if they contain cancer cells. 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.

## **Imaging tests**

If cancer is found, you may have tests to see how far it has spread. These tests produce different kinds of pictures of the inside of the body. Some of these tests are used more often than others.

**Ultrasound:** Ultrasound uses sound waves to make a picture of the inside of the body. Most people know about ultrasound because it is often used to look at a baby during pregnancy. For anal cancer, a probe must be placed in the rectum, which can be slightly uncomfortable but should not be painful. This test can show how far the cancer might have grown into nearby tissues.

**CT scan (computed tomography, also called a CAT scan):** A CT scan can help tell whether anal cancer has spread to the liver or other organs. The CT scan machine moves around you and uses x-rays to take many pictures of the body. A computer then combines them to make pictures of cross-sections of the body. CT scans take longer than regular x-rays and you need to lie still on a table for 15 to 30 minutes. You might also feel a bit confined by the machine you lie in while the pictures are taken. But CT scans are getting faster all the time.

You may need to have a contrast "dye" put into a vein. When it is injected, you may feel warm and your skin may become red. Some people are allergic and get hives or, rarely, more serious reactions such as trouble breathing and low blood pressure. Be sure to tell the doctor if you have ever had a reaction to any contrast material used for x-rays. You may also be asked to drink 1 to 2 pints of a contrast solution. This helps outline the intestine so that tumors can be seen.

**MRI (magnetic resonance imaging):** Like CT scans, MRI scans show a cross-section of the body but in more detail. MRI uses radio waves and strong magnets instead of x-rays

to take pictures. They take longer and you have to lie inside a tube-like machine, which can be upsetting for some people. If you have trouble with closed spaces, let your doctor know before the MRI scan. Sometimes drugs can be given just before the scan to help you relax. Another option is to use special "open" MRI machines that are more comfortable but often don't take pictures that are as good.

MRI machines also make loud thumping noises that can be distracting. Some places offer earplugs with music to help reduce the noise of the machine. MRI scans are very helpful in looking at the brain and spinal cord.

**Chest x-rays:** These may be done to see whether the anal cancer has spread to the lungs.

**PET scan (positron emission tomography):** This test uses sugar combined with a radioactive atom that is put into a vein. Cancer cells absorb high amounts of the sugar and a special camera is used to see to show these areas. PET scans look for cancer in the whole body. They are useful when the doctor thinks the cancer has spread but doesn't know where.

## Staging of anal cancer

Staging is the process of finding out how far the cancer has spread. This is very important because your treatment and the outlook for your recovery depend on the stage of your cancer. If you have anal cancer, ask your doctor to explain staging in a way that you understand. Knowing all you can about staging lets you take a more active role in making informed decisions about your treatment.

The staging system used for anal cancer describes the spread of the cancer through the layers of the wall of the anus. It also takes into account spread to nearby organs or to organs farther away.

Stages are often labeled using Roman numerals 0 through IV (0-4). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV (4), means a more advanced cancer.

## Survival rates for anal cancer

Some people with cancer may want to know the survival rates for their type of cancer. Others may not find the numbers helpful, or may even not want to know them. Whether or not you want to read about survival rates is up to you. 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 percent of patients who live at least 5 years after their cancer is found. Of course, many people live much longer than 5 years (and many are cured).

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

The following numbers come from the National Cancer Data Base and are based on cancers found between 1998 and 1999. The National Cancer Database divides anal cancers based on how the cells look under the microscope (squamous cell cancers and non-squamous cell cancers) as well as by stage.

	<b>5-year survival for anal cancer</b>	
<b>Stage</b>	<b>Squamous cancers</b>	<b>Nonsquamous cancers</b>
I	71%	59%
II	64%	53%
IIIA	48%	38%
IIIB	43%	24%
IV	21%	7%

While these numbers give an overall picture, keep in mind that every person is different. Statistics can't predict what will happen in your case. Talk with your cancer care team if you have questions about your own chances of a cure, or how long you might survive your cancer. They know your situation best.

## How is anal cancer treated?

*This information represents the views of the doctors and nurses serving on the American Cancer Society's Cancer Information Database Editorial Board. These views are based on their interpretation of studies published in medical journals, as well as their own professional experience.*

*The treatment information in this document is not official policy of the 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.*

### About treatment

There is treatment for every type and stage of anal cancer. The treatment you get depends on many things. The place, type, and stage of the tumor are very important. Your age, health, and personal wishes are also taken into account.

There are 3 main types of treatment for anal cancer: surgery, radiation, and chemotherapy (chemo). Often the best approach uses 2 or more of these. In the past, surgery was the only treatment that could cure anal cancer, but now most anal cancers are treated instead with both radiation and chemo. This treatment approach, called *chemoradiotherapy* (or *chemoradiation*), often does away with the need for surgery.

The goal of treatment may be to cure the cancer. If that is not possible, the goal may be to keep the tumor from spreading or to keep it from coming back for as long as possible. Another goal may be to relieve symptoms such as pain or bleeding. Often, an important part of the plan is to try to treat the cancer without affecting your ability to control your bowel movements.

## Surgery for anal cancer

Surgery is no longer the standard option for most people with anal cancer. In people who do need surgery, the kind of operation depends on the type and place of the tumor.

**Local resection:** A local resection may be done if the cancer has not spread to nearby tissues or lymph nodes. In this operation, only the tumor and a small area of tissue around the tumor are removed. In most cases the muscle that opens and closes the anus (called the sphincter muscle) is saved. If so, you will be able to have bowel movements as usual afterwards.

**Abdominoperineal resection (APR):** This more involved approach is used for cancer that has spread. For this surgery, the doctor makes a cut through the belly (abdomen) and in the area between the anus and the sex organs. Then the anus and part of the rectum are removed. An APR is usually used only if other treatments do not work.

After an APR you will need to have a new opening made in your lower belly (abdomen) to pass stool. This opening is called a *colostomy*. Stool passes through this opening into a bag attached outside the body. If you would like to know more about colostomies, call the American Cancer Society and ask for *Colostomy: A Guide*. This surgery is not often needed when radiation and chemo are used to treat the cancer.

## Radiation therapy for anal cancer

Radiation therapy is treatment with high energy rays (like x-rays) to kill cancer cells or shrink tumors. The radiation may be given from outside the body (external radiation) or from radioactive materials placed directly in the tumor (internal or implant radiation). Sometimes doctors give radiation to shrink a tumor so it is easier to remove during surgery.

### External radiation

This type of treatment is often given 5 days a week for about 5 weeks. It is much like getting a normal x-ray. The radiation field may include some of the pelvis in order to treat lymph nodes in the groin, because the cancer will often spread to these lymph nodes.

But there can be side effects from this treatment. These side effects vary based on the part of the body treated and the dose of radiation given. The skin of the place that is treated may look sunburned. There might also be some short-term discomfort when having bowel movements. Other possible side effects include rectal bleeding, feeling very tired (fatigue), upset stomach (nausea), or diarrhea. Radiation to the pelvis can also weaken the bones, increasing the risk of fractures of the pelvis or hip later on. It can also damage

blood vessels that nourish the lining of the rectum which can lead to the lining of the rectum becoming inflamed (chronic radiation proctitis). This can cause long-term rectal bleeding and pain.

### **Internal radiation (brachytherapy)**

This kind of radiation treatment involves minor surgery to put radioactive seeds or pellets inside the body, in or near the tumor. The radioactive pellets slowly release their dose over a period of time. Though the pellets stop being radioactive after a while, they stay in place for the rest of your life. Fewer trips to the doctor are needed with this treatment. This approach is used less often than external radiation. When it is used, it is usually given along with external radiation. The possible side effects are often like those seen with external radiation.

## **Chemotherapy for anal cancer**

Chemotherapy ("chemo") is the use of drugs to treat cancer. Some drugs can be swallowed in pill form, while others need to be put into a vein or muscle. Once the drugs enter the bloodstream, they spread throughout the body to reach and destroy the cancer cells.

Often 2 or more drugs are used together because one drug can boost the power of the other. In anal cancer, chemo combined with radiation treatment often cures the cancer without the need for surgery. Doctors sometimes also give chemo after surgery has removed the cancer. The chemo is meant to kill any cancer cells that were left behind because they were too small to see. Chemo may also be used to treat anal cancer that has spread to distant sites such as the lungs or liver.

While chemo drugs kill cancer cells, they also damage some normal cells, causing side effects. These side effects will depend on the type of drug, how much you get, and how long you take it. Common side effects may include:

- Nausea and vomiting
- Loss of appetite
- Hair loss
- Diarrhea
- Mouth sores
- Easy bruising (from a shortage of blood platelets)
- Feeling very tired (fatigue) or short of breath (from a shortage of red blood cells)
- Increased chance of infection (from a shortage of white blood cells).

Most of the side effects go away when treatment is over. Talk with your doctor or nurse about side effects, as there are often ways to help.

## Chemoradiation

The main treatment for anal cancer that has not spread is chemo combined with radiation treatment (called *chemoradiation* or *chemoradiotherapy*). When given together, these 2 treatments often cure the cancer without the need for surgery. Often, chemo is used by itself either before or after chemoradiation to help shrink the cancer further.

## Patients with HIV

Most of the time 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 strong chemo.

## Treating recurrent anal cancer

Cancer is called *recurrent* when it come backs after treatment. It can come back in or near the same place it started (local) or spread to organs such as the lungs or bone (distant). If your cancer returns in the anus or nearby lymph nodes after treatment, your treatment depends on what treatment you had the first time. For instance, if you had surgery alone, you may now get radiation and chemo. If you first had chemoradiation, then you can be treated with surgery and/or chemo. Treating recurrent anal cancer often involves an abdominoperineal resection (APR). Again, clinical trials may be an option for people with recurrent anal cancer.

In some people, the cancer will come back in distant sites or organs in the body. The most common place is the liver. Another common place is the lung. The main treatment for this is chemo, but in rare cases surgery to remove the cancer might be an option. Chemo may not cure the cancer, but it may help to reduce any symptoms from the disease.

## Clinical trials for anal cancer

You may have had to make a lot of decisions since you've been told you have cancer. One of the most important decisions you will make is deciding which treatment is best for you. You may have heard about clinical trials being done for your type of cancer. Or maybe someone on your health care team has mentioned a clinical trial to you.

Clinical trials are carefully controlled research studies that are done with patients who volunteer for them. They are done to get a closer look at promising new treatments or procedures.

If you would like to take part in a clinical trial, you should start by asking your doctor if your clinic or hospital conducts clinical trials. You can also call our clinical trials matching service for a list of clinical trials that meet your medical needs. You can reach this service at 1-800-303-5691 or on our Web site at [www.cancer.org/clinicaltrials](http://www.cancer.org/clinicaltrials). You can also get a list of current clinical trials by calling the National Cancer Institute's

Cancer Information Service toll-free at 1-800-4-CANCER (1-800-422-6237) or by visiting the NCI clinical trials Web site at [www.cancer.gov/clinicaltrials](http://www.cancer.gov/clinicaltrials).

There are requirements you must meet to take part in any clinical trial. If you do qualify for a clinical trial, it is up to you whether or not to enter (enroll in) it.

Clinical trials are one way to get state-of-the-art cancer treatment. They are the only way for doctors to learn better methods to treat cancer. Still, they are not right for everyone.

You can get a lot more information on clinical trials, in our document called *Clinical Trials: What You Need to Know*. You can read it on our Web site or call our toll-free number and have it sent to you.

## Complementary and alternative therapies for anal cancer

When you have cancer you are likely to hear about ways to treat your cancer or relieve symptoms that your doctor hasn't mentioned. Everyone from friends and family to Internet groups and Web sites offer ideas for what might help you. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

### What are complementary and alternative therapies?

It can be confusing because not everyone uses these terms the same way, and they are used to refer to many different methods. We use *complementary* to refer to treatments that are used *along with* your regular medical care. *Alternative* treatments are used *instead of* a doctor's medical treatment.

**Complementary methods:** Most complementary treatment methods are not offered as cures for cancer. Mainly, they are used to help you feel better. Some examples of methods that are used along with regular treatment are meditation to reduce stress, acupuncture to help relieve pain, or peppermint tea to relieve nausea. Some complementary methods are known to help, while others have not been tested. Some have been proven not to be helpful, and a few are even harmful.

**Alternative treatments:** Alternative treatments may be offered as cancer cures. These treatments have not been proven safe and effective in clinical trials. Some of these methods may be harmful, or have life-threatening side effects. But the biggest danger in most cases is that you may lose the chance to be helped by standard medical treatment. Delays or interruptions in your medical treatments may give the cancer more time to grow and make it less likely that treatment will help.

### Finding out more

It is easy to see why people with cancer think about alternative methods. You want to do all you can to fight the cancer, and the idea of a treatment with few or no side effects sounds great. Sometimes medical treatments like chemotherapy can be hard to take, or

they may no longer be working. But the truth is that most of these alternative methods have not been tested and proven to work in treating cancer.

As you think about your options, here are 3 important steps you can take:

- Look for "red flags" that suggest fraud. Does the method promise to cure all or most cancers? Are you told not to have regular medical treatments? Is the treatment a "secret" that requires you to visit certain providers or travel to another country?
- Talk to your doctor or nurse about any method you are thinking of using.
- Contact us at 1-800-227-2345 to learn more about complementary and alternative methods in general and to find out about the specific methods you are looking at.

### **The choice is yours**

Decisions about how to treat or manage your cancer are always yours to make. If you want to use a non-standard treatment, learn all you can about the method and talk to your doctor about it. With good information and the support of your health care team, you may be able to safely use the methods that can help you while avoiding those that could be harmful.

## **What are some questions I can ask my doctor about anal cancer?**

As you cope with cancer and cancer treatment, you need to have honest, open talks with your doctor. You should feel free to ask any question that's on your mind, no matter how small it might seem. Here are some questions you might want to ask. Be sure to add your own questions as you think of them. Nurses, social workers, and other members of the treatment team may also be able to answer many of your questions.

- Will you please write down the type of anal cancer I have?
- Has my cancer spread beyond the anus?
- What is the stage of my cancer and what does that mean in my case?
- What treatment choices do I have?
- What treatment do you recommend and why?
- What are the risks or side effects of the treatment?
- How long will it take me to recover from treatment?
- Will I need a colostomy?
- Will treatment interfere with normal bowel movements?

- How long will treatment last?
- How soon after treatment starts will we know if it's working?
- When can I go back to work after treatment?
- When can I have sex and do other normal activities?
- What should I do to be ready for treatment?
- What are the chances that my cancer will come back after treatment?
- Based on my cancer as you see it, what is my outlook?
- Should I get a second opinion?

## Moving on after treatment for anal cancer

For some people with anal cancer, treatment may remove or destroy the cancer. Completing treatment can be both stressful and exciting. You may be relieved to finish treatment, but find it hard not to worry about 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 living full lives. Our document, *Living with Uncertainty: The Fear of Cancer Recurrence* gives more detailed information on this.

For other people, the cancer may never go away completely. These people may get regular treatments with chemo, radiation, or other treatments to try 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. Our document, *When Cancer Doesn't Go Away*, talks more about this.

## Follow-up care

After your treatment is over, follow-up is very important. During these visits, your doctors will ask about symptoms, do physical exams, and order blood tests or imaging. Follow-up is needed to watch for treatment side effects and to check for cancer that has come back or spread.

Follow-up doctor visits after chemoradiation may be scheduled as often as every 3 months for at least 2 years. During these visits, your doctor will ask about symptoms and do a physical exam, which will include a rectal exam and an exam of the anus. Blood tests and imaging studies such as CT scans or x-rays may also be ordered.

Almost any cancer treatment can have side effects. Some may last for a few weeks or months, but others can be permanent. Please tell your cancer care team about any

symptoms or side effects that bother you so they can help you manage them. Use this time to ask your health care team questions and discuss any concerns you might have.

It is also important to keep health insurance. While you hope your cancer won't come back, it could happen. If it does, you don't want to have to worry about paying for treatment. Should your cancer come back, our document *When Your Cancer Comes Back: Cancer Recurrence* helps you manage and cope with this phase of your treatment.

## **For patients with colostomies**

Permanent colostomies are rarely needed now in the treatment of anal cancer. If you have a colostomy, follow-up is an important concern. You may feel worried or isolated. But there are nurses with special training to help people with their colostomies. They can teach you how to take care of your colostomy. Ask the American Cancer Society about programs offering information and support in your area. For more information on colostomies, refer to the American Cancer Society document, *Colostomy: A Guide*.

## **Seeing a new doctor**

At some point after your cancer is found and treated, you may find yourself in the office of a new doctor who does not know about your cancer. It is important that you be able to give your new doctor the exact details of your diagnosis and treatment. Make sure you have this information handy and always keep copies for yourself:

- A copy of your pathology report from any biopsy or surgery
- If you had surgery, a copy of your operative report
- If you were in the hospital, a copy of the discharge summary that the doctor wrote when you were sent home from the hospital
- If you had radiation treatment, a copy of the treatment summary
- If you had chemo or targeted therapies, a list of your drugs, drug doses, and when you took them
- Copies of your x-rays and imaging tests (these can be put onto a DVD)

## **Lifestyle changes after anal cancer**

You can't change the fact that you have 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 are thinking about how to improve your health over the long term. Some people even start during cancer treatment.

## **Make healthier choices**

For many people, finding out they have 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 the 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 good 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.

## **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 caused weight changes or eating or taste 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.

## **Rest, fatigue, and exercise**

Feeling tired (fatigue) is a very common problem during and after cancer treatment. This is not a normal type of tiredness but a "bone-weary" exhaustion that doesn't get better with rest. For some people, fatigue lasts a long time after treatment and can keep them from staying active. But exercise can actually help reduce fatigue and the sense of depression that sometimes comes with feeling so tired.

If you are very tired, though, you will need to balance activity with rest. It is OK to rest when you need to. To learn more about fatigue, please see our document, *Fatigue in People With Cancer*.

If you were very ill or weren't able to do much during treatment, it is normal that your fitness, staying power, and muscle strength declined. You need to find an exercise plan

that fits your own needs. Talk with your health care team before starting. Get their input on your exercise plans. Then try to get an exercise buddy so that you're not doing it alone.

Exercise can improve your physical and emotional health.

- It improves your cardiovascular (heart and circulation) fitness.
- It makes your muscles stronger.
- It reduces fatigue.
- It lowers anxiety and depression.
- It can make you feel generally happier.
- It helps you feel better about yourself.

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.

## How about your emotional health after anal cancer?

Once your treatment ends, you may be surprised by the flood of emotions you go through. This happens to a lot of people. You may find that you think about the effect of your cancer on things like your family, friends, and career. Money may be a concern as the medical bills pile up. Or you may begin to think about the changes that cancer has brought to your relationship with your spouse or partner. Unexpected issues may also cause concern -- for instance, as you get better and need fewer doctor visits, you will see your health care team less often. This can be hard for some people.

This is a good time to look for emotional and social support. You need people you can turn to. Support can come in many forms: family, friends, cancer support groups, church or spiritual groups, online support communities, or private counselors.

The cancer journey can feel very lonely. You don't need to go it alone. Your friends and family may feel shut out if you decide 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.

You can't change the fact that you have had cancer. What you can change is how you live the rest of your life -- making healthy choices and helping your body and mind feel well.

## If treatment for anal cancer stops working

When a person has had many different treatments and the cancer has not been cured, over time the cancer tends to resist all treatment. At this time you may have to weigh the possible benefits of a new treatment against the downsides, like treatment side effects and clinic visits.

This is likely to be the hardest time in your battle with cancer -- when you have tried everything within reason and it's just not working anymore. Your doctor may offer you new treatment, but you will need to talk about whether the treatment is likely to improve your health or change your outlook for survival.

No matter what you decide to do, it is important for you to feel as good as possible. Make sure you are asking for and getting treatment for pain, nausea, or any other problems you may have. This type of treatment is called "palliative" treatment. It helps relieve symptoms but is not meant to cure the cancer.

At some point you may want to think about hospice care. Most of the time, it is given at home. Your cancer may be causing symptoms or problems that need to be treated. Hospice focuses on your comfort. You should know that having hospice care doesn't mean you can't have treatment for the problems caused by your cancer or other health issues. It just means that the purpose of your care is to help you live life as fully as possible and to feel as well as you can. You can learn more about this in our document, *Hospice Care*.

Staying hopeful is important, too. Your hope for a cure may not be as bright, but there is 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 focus 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.

## What's new in anal cancer research?

Research about anal cancer is now going on in many places around the country. Every year, scientists find out more about what causes the disease, how to prevent it, and how to better treat it.

**Causes and prevention:** Research has shown that the human papilloma virus (HPV) is a major factor in causing many cases of anal cancer. Researchers are learning how HPV affects anal cells to cause them to become cancerous. This knowledge is expected to help scientists find new drugs to fight this disease.

**Early detection:** Research is focused on the value of screening tests for anal cancer, especially in people with major risk factors. A test called anal cytology (or the anal Pap test) allows doctors to look at cells from the lining of the anus under a microscope. Some doctors are already using this test for people at high risk for anal cancer, and it might prove useful in finding cell changes before they become anal cancer.

**Treatment:** Better treatments are also being studied. Doctors are learning how to focus radiation beams more exactly. They are also looking at whether it works better to use 2 types of radiation at the same time.

Using radiation along with chemo has been found to reduce the number of people who need surgery for anal cancer. Different chemo treatments are also being studied.

Studies are also looking at using a cream (imiquimod) to treat anal intraepithelial neoplasia (AIN). Imiquimod is FDA approved as a treatment for anal and genital warts. It has been used “off-label” to treat AIN in HIV positive men with good results. Lately it has been shown to be helpful in a clinical trial. The cream is applied to the problem area 3 times a week.

The HPV vaccines in use at this time help prevent HPV infection, but they do not treat infections already present. Doctors are working on vaccines to treat those 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, but results for anal cancer are not in yet.

## **More information about anal cancer**

### **From your American Cancer Society**

We have selected some related information that may also be helpful to you. These materials may be ordered from our toll-free number, 1-800-227-2345.

Anal Cancer Detailed Guide

After Diagnosis: A Guide for Patients and Families (also in Spanish)

Caring for the Patient With Cancer at Home (also in Spanish)

Colostomy: A Guide (also in Spanish)

Pain Control (also in Spanish)

Questions About Smoking, Tobacco, and Health (also in Spanish)

Sexuality for the Man With Cancer (also in Spanish)

Sexuality for the Woman With Cancer (also available in Spanish)

Understanding Chemotherapy: A Guide for Patients and Families (also available in Spanish)

Understanding Radiation Therapy (also in Spanish)

### **Books**

These books are available from the American Cancer Society. Call us at 1-800-227-2345 to ask about costs or to place your order.

*American Cancer Society's Guide to Pain Control*

*American Cancer Society Complete Guide to Family Caregiving*

## National organizations and Web sites\*

Along with the American Cancer Society, other sources of information and support include:

### **National Cancer Institute**

Toll-free number: 1-800-4-CANCER (1-800-422-6237)

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

### **National Coalition for Cancer Survivorship**

Toll-free number: 1-888-650-9127

1-877-NCCS-YES (1-877-622-7937) for some publications and Cancer Survivor

Toolbox® orders

Web site: [www.canceradvocacy.org](http://www.canceradvocacy.org)

*\*Inclusion on this list does not imply endorsement by the American Cancer Society.*

No matter who you are, we can help. Contact us anytime, day or night, for information and support. Call us at 1-800-227-2345 or visit [www.cancer.org](http://www.cancer.org).

Last Medical Review: 11/2/2011

Last Revised: 1/17/2012

2011 Copyright American Cancer Society

For additional assistance please contact your American Cancer Society  
1 · 800 · ACS-2345 or [www.cancer.org](http://www.cancer.org)