National Comprehensive Cancer Network®

2026

NCCN Guidelines for Patients®

Cancer care recommendations from leading experts at the National Comprehensive Cancer Network® (NCCN®)

Anal Cancer



Presented with support from NCCN FOUNDATION® Guiding Treatment. Changing Lives.

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NCCN Guidelines for Patients®

The essential guide for people facing cancer.

Based on care recommendations from leading cancer experts.

Explains high-quality cancer care provided at state-of-the-art cancer centers.

Reviewed and revised every year.

Did you know that top cancer centers across the United States work together to improve cancer care? This alliance of leading cancer centers is called the National Comprehensive Cancer Network® (NCCN®).

Because cancer care is always evolving, NCCN develops and frequently updates evidence-based cancer care recommendations used by health care providers worldwide. These recommendations are known as the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®).

The NCCN Guidelines for Patients plainly explain these expert recommendations, so you can talk with your care team about the best care for you.

These NCCN Guidelines for Patients are based on the NCCN Guidelines® for Anal Carcinoma, Version 2.2026 — April 7, 2026.

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About anal cancer

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Treatment for anal cancer should involve a team of digestive health experts with experience in chemotherapy, radiation therapy, surgery, and imaging. Everyone with anal cancer is encouraged to enroll in a clinical trial for treatment, when possible.

What is anal cancer?

Anal cancer is a disease that forms in the opening through which stool leaves the body (the anus). It starts when microscopic cells in or near the anus undergo a change.

The (now abnormal) cells begin constantly making copies of themselves. Over time, these areas of abnormal cells, called anal dysplasia, can form a lump called a tumor.

Most anal cancers are squamous cell carcinomas, named for the type of cell where they form (squamous cells). Anal squamous cell carcinoma is the focus of this resource.

NCCN Guidelines for Patients are available on other rare types of anal cancer, including anal adenocarcinoma and anal melanoma.

Where in the anus does cancer start?

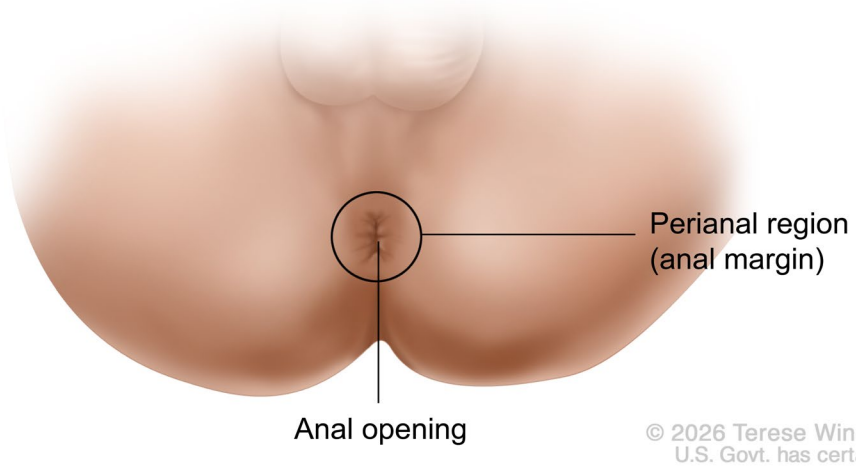
Most anal cancers start in the **anal canal**. This is the tube that connects the rectum and the anal opening. It's about the length of a paper clip.

Less often, anal cancer starts in the **perianal region**, also called the anal margin. This area includes the anal opening and the skin directly surrounding it.

In some cases, an anal tumor can involve both the anal canal and the perianal skin.

Where anal cancers start

Most anal cancers start in the tiny tube that connects the rectum and the anal opening. Anal cancer can also start in the perianal region (shown at right). This area includes the anal opening and the skin directly surrounding it.



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Who is most at risk?

Because almost all anal cancers are caused by human papillomavirus (HPV), people who have had HPV are at highest risk. HPV is the most common sexually transmitted infection.

In most people, the immune system gets rid of HPV from the body. In other people, the virus causes long-term cell changes that develop into cancer, often decades later. HPV also causes cervical, head and neck, penile, vaginal, and vulvar cancers.

There are many strains (types) of HPV. Some are more likely to lead to cancer than others. A vaccine that protects against the highest-risk (and other) strains is available in the United States.

Other risk factors for anal cancer either increase the risk of being exposed to HPV, or they weaken the immune system, making it harder for the body to clear HPV infection.

How is anal cancer treated?

For most non-metastatic anal cancers, treatment with both chemotherapy and external radiation therapy is recommended. This strategy is called chemoradiation. For some slow-growing stage 1 or 2 perianal cancers, surgery (local excision) may be an option.

Anal cancer that has spread to areas far from the anus is metastatic. The most common areas it spreads to are the liver and lungs. Treatment with systemic therapy (anti-cancer medicines) is recommended. The preferred regimen to start with is a combination of platinum chemotherapy and immunotherapy.

Everyone with anal cancer is encouraged to enroll in a clinical trial for treatment, when possible.

"I learned that getting a second opinion had nothing to do with trusting my doctor. It was the process of getting all the information I needed to make the best decisions for my treatment."



How can I get the best care?

Advocate for yourself. You have an important role to play in your care. Many people feel more satisfied when they actively take part in planning their cancer care.

The NCCN Guidelines for Patients will help you play a larger role in your care. Discuss the recommendations in this guide with your care team. Ask questions about your options and share your goals and concerns.

Don't know what to ask? You're not alone. That's why we include suggested questions to ask at the end of chapters. Keep reading to find the best care for you.

"Be your own advocate. Talk to someone who has gone through the same thing. Ask a lot of questions, even the ones you are afraid to ask."



How this guide can help you

Making decisions about cancer care is stressful. There's a lot to learn, and you don't know what the future holds.

Use this guide to get the information and support you need.

Patients, doctors, and other health care professionals trust the NCCN Guidelines for Patients. This guide uses clear, everyday language to explain current cancer care recommendations made by respected experts in the field. Their recommendations are based on the latest research and practices at leading cancer centers.

Your health is unique to you, so your cancer care should be, too. As you read this guide, you'll learn which treatments are likely to provide the best results for you. And you'll be better prepared to talk with your care team.

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Testing for anal cancer

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This chapter describes the testing and care needed to diagnose anal cancer and create your treatment plan.

First steps

The most common symptom of anal cancer is bleeding from the anus, also called rectal bleeding. You may notice blood in your stool, on toilet paper, or in the water of the toilet bowl. Anal itching is also common. Some people have pain in the anal area or feel like there is a lump or mass near the anus.

These symptoms shouldn't be ignored. It's common to assume they are caused by hemorrhoids. Although they may be embarrassing to talk about, it's important to be evaluated by a health care professional.

If you have symptoms of anal cancer, the testing described in this chapter is recommended. Also see **Guide 1**.

Digital rectal exam

The digital rectal exam (DRE) is important for diagnosis, staging, and follow-up. In a DRE, your doctor inserts a gloved, lubricated finger into your anus and rectum. This finger exam can find abnormalities in the anal canal and nearby areas.

Guide 1
Testing and care for anal cancer

Necessary tests	• Anoscopy • Biopsy • Digital rectal exam • Groin exam to check for swollen lymph nodes • To see the extent of cancer in and near the anus: Either CT or MRI • To look for cancer outside the pelvis: CT of your chest and abdomen
Other tests or care you may receive	• PET/CT or PET/MRI scan • *DPYD* testing • HIV blood test (encouraged) • Help to quit smoking • Gynecologic exam, including screening for cervical cancer • Fertility preservation

Anoscopy

Anoscopy is a procedure that allows your health care provider to view and examine the anal canal. Your doctor will insert a short, hollow tool with a light (an anoscope) a few inches into your anus and look closely for abnormal areas.

Or, in high-resolution anoscopy (HRA), they will examine the anal canal using magnification. After applying a liquid called acetic acid to the anal canal tissue, they use a special magnifying glass called a colposcope to examine the tissue. The acetic acid makes abnormal cells stand out when viewed with the colposcope.

If your provider sees any abnormal or suspicious areas, they will remove a sample of tissue for testing. This is called a biopsy. This biopsy sample may provide the diagnosis of anal cancer.

No special preparations need to be taken ahead of anoscopy. The procedure is brief (about 20 to 30 minutes) and generally painless, and you can go home afterward. Some people have minor bleeding and discomfort for a few days following the procedure. While not common, some people may need to have HRA in the operating room under general anesthesia.

SISCCA

Superficially invasive squamous cell carcinoma (SISCCA) is the earliest form of anal cancer. These lesions are smaller than a pea and not deep at all. This resource is about treatment for invasive cancers that are more advanced than SISCCA.

Testing after diagnosis

After a biopsy confirms anal squamous cell carcinoma, more testing is needed to plan your treatment. Digital rectal exams are repeated, along with the tests described next.

Lymph node exam

There are hundreds of small, bean-shaped filters in the body, called lymph nodes. These immune system helpers catch and remove things that don't belong, including cancer cells.

Certain areas of the body, like the groin, contain more lymph nodes than others. Lymph nodes in the groin are called the **inguinal** lymph nodes. If left untreated, the cancer cells can travel through blood or lymph to the inguinal or other nodes in the pelvis, and then to other areas of the body.

Lymph nodes can't usually be seen or felt in the early stages of cancer, but may become enlarged in later stages. Your provider will examine lymph nodes in your groin by pressing on the surface of the skin. This is called palpation.

If any lymph nodes feel enlarged or look suspicious on imaging tests, you may have fine-needle aspiration (FNA). For FNA, a health care provider uses a thin needle to remove a sample of tissue from the node(s) for testing.

In some cases, all or part of a lymph node may need to be removed by cutting into the skin. This is called an excisional biopsy.

Imaging

Imaging tests provide information on how much cancer is in the body and where it's

located. To see the extent of cancer in the anus and nearby areas (including lymph nodes), either CT or MRI is recommended.

Both types of scanners are large machines with tunnel-like openings in the middle. While the process is similar, MRI takes longer, and the scanner is more enclosed.

MRI doesn't use radiation and is safe for most people. Those with certain heart monitors, pacemakers, or some types of surgical clips generally can't have MRI scanning.

For either type of scan, you're likely to receive a contrast agent to make the pictures clearer. It may be given as a drink, injected into your vein, or both. In some people, contrast causes an allergic reaction. Tell your provider if you've had an issue with contrast in the past.

To look for areas of cancer beyond the pelvis, a CT scan of your chest and abdomen (with contrast) is recommended.

In some cases, positron emission tomography (PET) may be combined with CT or MRI. In a PET scan, cancer cells appear brighter than normal cells. This happens because they react differently to a radioactive glucose (sugar) put into your body beforehand.

HIV testing

People with HIV are at increased risk of developing anal cancer. If you haven't been tested, your provider may recommend an HIV blood test. If you have HIV, getting the care you need may also improve your cancer treatment outcomes.

Gynecologic exam

Like anal cancer, HPV is the cause of almost all cervical cancers. A gynecologic exam, including screening for cervical cancer, is recommended.

Cervical cancer screening involves scraping cells from the cervix and testing them for HPV,

To see the extent of cancer in the anus and nearby, either CT or MRI is recommended. CT uses a small amount of radiation, while MRI uses magnetic fields to create the images.



cancer, and cell changes that may lead to cancer. If testing for HPV isn't performed, it's simply called a Pap test. If the cells are tested for both HPV and cancer, it's called an HPV/Pap co-test.

DPYD testing

Capecitabine and fluorouracil (5-FU) are chemotherapy medicines called fluoropyrimidines. They are commonly used to treat anal cancer. Your body uses a special enzyme (protein) called DPD to break down these medicines so they can work properly and safely.

Around 1 in 15 people inherit a difference in the gene involved in making DPD, the *DPYD* gene. This is called DPD deficiency. In these people, fluoropyrimidines can build up and cause severe and sometimes life-threating side effects, referred to as fluoropyrimidine toxicity.

Signs and symptoms include mouth sores, abdominal pain, blood in the stool, nausea, vomiting, and diarrhea. The skin on the palms of your hands and soles of your feet may start peeling and become red, swollen, or numb. Other possible side effects include shortness of breath and hair loss.

Genetic testing can be performed to learn if you have the gene variant (difference) that causes DPD deficiency. If treatment with a fluoropyrimidine is planned, talk to your provider about the risk for fluoropyrimidine toxicity. After understanding your risk, you may choose to have genetic testing for *DPYD* variants.

If you develop any of the symptoms mentioned here in the days after receiving capecitabine or 5-FU, contact your care team right away. There is an FDA-approved treatment for this uncommon side effect of fluoropyrimidines.

Staging

The results of testing are used to determine the cancer stage. The stage describes the extent of cancer in the body.

The tumor, node, metastasis (TNM) system is used to stage anal squamous cell carcinoma. This system uses the following 3 key pieces of information to determine the stage:

T: The size and extent of invasion of the anal tumor. Tumors are measured in centimeters (cm). Approximately 2 and a half cm make 1 inch.

N: Whether any lymph nodes near the anus have cancer

M: Whether the cancer has metastasized (spread) to areas far from the anus, such as the liver or lungs

Accurate staging helps determine the best treatment plan for you, and suggests how likely the cancer is to be cured.

Precancer

There are abnormal cells on the surface of the anal canal or perianal region that may develop into cancer. Names for anal precancer include:

- Stage 0 anal cancer
- Anal dysplasia
- Carcinoma in situ
- High-grade anal intraepithelial neoplasia (AIN)
- High-grade squamous intraepithelial lesions (HSIL)



Do I need a second opinion?

Anal cancer is a serious diagnosis. Consider having an in-person meeting with a different doctor to see if they are in agreement with your diagnosis and treatment plan.

Stage 1

In stage 1 anal cancer, the tumor is 2 cm or smaller. Cancer hasn't spread to nearby lymph nodes or to areas far from the anus. Stage 1 anal cancer is described as T1, N0, M0.

Stage 2

Stage 2 anal cancer is divided into 2 substages, depending on the size of the tumor.

Anal tumors larger than 2 cm but not larger than 5 cm are stage 2A. This stage is described as T2, N0, M0.

Anal tumors larger than 5 cm are stage 2B. This stage is described as T3, N0, M0. Stage 2 anal cancers haven't spread to nearby lymph nodes or to areas far from the anus.

Stage 3

In stage 3, there may be cancer in nearby lymph nodes. This stage has 3 sub-stages.

In stage 3A, the anal tumor is 5 cm or smaller, and there is cancer in nearby lymph nodes. This stage is described as either T1, N1, M0 or T2, N1, M0.

In stage 3B, the tumor has invaded nearby organs (such as the vagina, urethra, or bladder), but there is no cancer in nearby lymph nodes. This stage is described as T4, N0, M0.

In stage 3C, the tumor is larger than 5 cm or has invaded nearby organs. Cancer has spread to nearby lymph nodes. This stage is described as either T3, N1, M0 or T4, N1, M0.

Stage 4

The cancer is metastatic. This means it has spread to areas beyond the pelvis, such as the liver or lungs. Stage 4 anal cancer is described as T (may be 1, 2, 3, or 4), N (0 or 1), M1.

Staging and treatment

Stages 1, 2, and 3 anal cancer are non-metastatic. This means they haven't spread to distant areas of the body. Because these stages are potentially curable, the goal of treatment is to cure the cancer.

Aside from some early-stage perianal cancers, treatment with chemoradiation is recommended for most non-metastatic anal cancers, regardless of the stage.

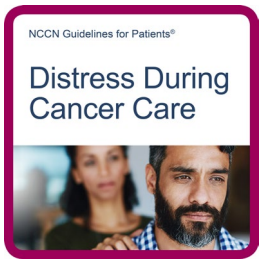
The main treatment for metastatic anal cancer, in contrast, is chemotherapy or immunotherapy. The goal of treatment for metastatic anal cancer is usually to help you live longer and to help with symptoms.

Detailed treatment information is provided in the next chapter.

Distress

Depression, anxiety, fear, and distress are common after a cancer diagnosis. These feelings can make it harder to deal with cancer and its treatment. If you're worried, overwhelmed, or hopeless, ask your care team for help.

More information about cancer and distress is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Fertility and family planning

Treatment for anal cancer, especially radiation therapy, can impair your ability to have children.

Radiation damages the ovaries and testicles, causing them to stop making hormones needed for natural pregnancy. In some cases, treatment with chemotherapy can also impair fertility by damaging sperm or eggs.

If you want the option of having children after treatment or are unsure, tell your care team. They can explain any fertility-related risks of your treatment plan.

You can also ask for a referral to an expert to learn about options for preserving your fertility, including those described next.

Sperm banking

Sperm banking stores semen for later use by freezing it in liquid nitrogen.

Egg freezing

Like sperm banking, unfertilized eggs can be removed, frozen, and stored for later use.

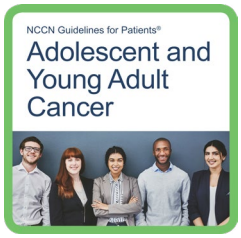
Ovarian tissue banking

This method involves removing part or all of an ovary and freezing the part that contains the eggs. The frozen tissue that contains the eggs can later be unfrozen and put back in the body.

Ovarian transposition

This procedure moves one or both ovaries and fallopian tubes out of the range of the radiation beam. Another name for this procedure is oophoropexy.

For more information on this topic, see *NCCN Guidelines for Patients: Adolescent and Young Adult Cancer* at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Key points

- After a biopsy confirms anal squamous cell carcinoma, more testing is needed to plan your treatment.
- Other recommended care includes a digital rectal exam (DRE), lymph node exam, imaging, and HIV blood test. In people assigned female at birth, screening for cervical cancer is also recommended.
- After understanding your risk for fluoropyrimidine toxicity, you may choose to have testing for gene variants that cause DPD deficiency.
- The results of testing are used to determine the cancer stage. Stages 1, 2, and 3 are non-metastatic. Stage 4 is metastatic.
- Treatment for anal cancer can impair your fertility. If you want the option of having children or are unsure, talk to your care team about ways to preserve your fertility.

Questions to ask

- Did I have high-resolution anoscopy? If I didn't, will I?
- What type of anal cancer do I have? How do you know?
- What is the cancer stage?
- What is the cancer grade? What does this mean?
- Will I have any genetic tests?

3
Treatment for anal cancer

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Treatment with chemoradiation is recommended for most non-metastatic anal cancers. Metastatic anal cancer is treated with a combination of chemotherapy and immunotherapy, and sometimes radiation therapy.

Anal canal cancer (stages 1 to 3)

This section provides treatment recommendations for stage 1, 2, and 3 anal canal cancers. These stages are non-metastatic, meaning the cancer hasn't spread beyond the pelvis.

Treatment with chemoradiation, described next, is recommended for all stage 1 to 3 squamous cell carcinomas in the anal canal. This combined treatment approach involves both chemotherapy and radiation therapy given during the same time period.

Chemoradiation

Radiation therapy

In external radiation therapy, radiation is delivered using a large machine outside the body. The radiation passes through skin and other tissue to reach the tumor. The radiation beams are shaped to the cancer site. This helps minimize damage to healthy tissue.

An advanced radiation technique called intensity-modulated radiation therapy (IMRT) is preferred for treating anal cancer. IMRT is unique because it allows a high dose of radiation to target the tumor while limiting the amount that reaches nearby areas, like hip joints and external genitalia. This can help reduce treatment-related side effects.

As part of chemoradiation, radiation is typically given Monday through Friday for 5 to 6 weeks (25 to 30 treatment sessions). Your radiation oncologist will create a treatment plan to aim radiation beams at the anal tumor and lymph nodes in the pelvis and groin.

Chemotherapy

Chemotherapy is the use of anti-cancer medicines that travel in the bloodstream to reach cells throughout the body. While some can be taken by mouth, most are given intravenously. This means the medicine is slowly infused into your body through a vein.

The chemotherapy medicines currently preferred for chemoradiation are listed in **Guide 2**. Preferred therapies have the most evidence they may work better and may be safer than other therapies.

If the preferred regimens in **Guide 2** aren't an option for you, there is another recommended option: fluorouracil (5-FU) and cisplatin. Other recommended therapies can provide effective results but may have less evidence, more side effects, or may not work quite as well as preferred therapies.

While you receive chemotherapy with 1 of these regimens, you will also have radiation therapy 5 days per week.

Short-term side effects of radiation therapy

Common side effects at the radiation site during the 5 to 6 weeks of treatment include skin irritation, tenderness, redness, and sores or skin breakdown.

Ask your radiation oncologist about over-the-counter ointments like Aquaphor or Silvadene. They can soothe the skin and help with healing.

Other short-term side effects of radiation therapy include diarrhea, fatigue, frequent urination or pain while urinating, and nausea. Most of these decrease over time when treatment is over.

You may not feel side effects of radiation therapy right away. They can appear and worsen later in the cycle or even after treatment is over.

Guide 2
Preferred chemotherapy regimens for chemoradiation

Capecitabine and mitomycin	**Capecitabine** is taken by mouth twice daily on radiation days (Monday through Friday) for 5 and a half to 6 weeks. On the day you begin taking capecitabine, you will also receive a single intravenous dose of **mitomycin**. A second dose may be needed when week 5 starts. Ask your doctor how you can safely avoid the second dose.
Fluorouracil (5-FU) and mitomycin	**5-FU** is given by continuous infusion over several days. Before chemotherapy begins, you will have a device inserted into your upper chest, or a special IV inserted into your arm (a PICC line), that allows you to receive treatment from anywhere. The 5-FU is stored in a small, wearable pump that slowly infuses the medicine into the body. The first infusion starts when radiation therapy begins and lasts for 4 to 5 days. You will have another 4- to 5-day infusion of 5-FU at the start of week 5 of radiation therapy. The pump will be disconnected and removed between infusions. A single dose of **mitomycin** is given on the first day of the first 5-FU infusion. A second dose of mitomycin may be needed. Ask your provider how you can safely avoid the second dose.

Long-term side effects of radiation therapy

Radiation therapy for anal cancer can have long-term and potentially serious effects on fertility, sexual health, and bowel and bladder function.

Radiation damages the hormone-making function of the ovaries and testicles. This can cause the inability to conceive a child. Damage to the ovaries is known as premature ovarian insufficiency (POI) or radiation-induced premature menopause. You may need to see your gynecologist or primary care physician to discuss how to manage the symptoms of early menopause.

Radiation to the pelvic area can also cause the vagina to become shorter and narrower. This can make it uncomfortable or even painful to have sex, or to have vaginal exams by a doctor. Using a device called a vaginal dilator during and after radiation therapy can help gradually stretch and widen the vagina.

In people assigned male at birth, long-term risks to sexual function include erectile dysfunction and decreased testosterone function.

See *Chapter 4: Survivorship* for information on how to prevent or manage these effects.

Side effects of chemotherapy

The most common side effects of the recommended chemotherapies are nausea, vomiting, diarrhea, sores in the mouth and lining of the anus, and low blood cell counts.

Capecitabine can cause a side effect known as hand-foot syndrome. Symptoms include redness, swelling, and pain on the palms of the hands, bottoms of the feet, or both. Ask your care team for a complete list of possible side effects.

It takes a team

Ideally, treatment for anal cancer involves a team of digestive health experts in chemotherapy, radiation therapy, and surgery.

The treatment that you and your care team agree on should be noted in the treatment plan, along with possible side effects.



Perianal cancer (stages 1 to 3)

This section provides treatment recommendations for non-metastatic (stages 1 through 3) perianal cancers. These are also called anal margin cancers.

Local excision

While most perianal cancers are treated with chemoradiation, local excision (surgery) may be an option for **some** stage 1 and stage 2A perianal cancers. These stages haven't spread to nearby lymph nodes.

Local excision involves removing only the tumor and a small area of surrounding tissue. Lymph nodes in the pelvis aren't removed. For local excision to be an option, the cancer must not have invaded the sphincter muscle.

The cancer grade is also important when determining if local excision is an option. The cancer grade is a rating of how fast the cancer is expected to grow and spread. It's based on how abnormal the cancer cells look when viewed under a microscope. Higher scores mean that the cancer is likely to grow and spread quickly. There are 5 possible grades:

- GX: Grade cannot be assessed (undetermined grade)
- G1: Well differentiated (low grade)
- G2: Moderately differentiated (intermediate grade)
- Poorly differentiated (high grade)
- Undifferentiated (high grade)

Local excision is only an option for low-grade (G1) and intermediate-grade (G2) perianal cancers.

The normal tissue surrounding the lesion removed during surgery is called the surgical margin. If a margin of at least 1 centimeter (cm) is removed and it doesn't contain cancer cells, you are done with treatment.

If a margin of less than 1 cm is removed or if the tissue contains cancer cells, the preferred next step is another surgery. But, this may not be the best option if there is a risk of losing normal bowel function.

The pathology report may also note features that suggest the cancer will return after treatment, such as tumor cells in the blood vessels or lymph vessels outside of the main tumor. This is known as lymphovascular space invasion (LVSI).

Your team will review your pathology report and discuss your options and preferences for lowering the risk of recurrence and maintaining your bowel function.

Chemoradiation

Chemoradiation is recommended for all non-metastatic perianal cancers that don't meet the criteria for local excision. This includes:

- Fast-growing (high-grade) stage 1 and 2 cancers
- Stage 2 cancers that have invaded the sphincter
- Stage 3 cancers

Follow-up and surveillance

After finishing treatment for anal cancer, you will have testing to find early signs that cancer may have returned. This is called surveillance. The following recommendations apply to cancers in the anal canal and the perianal region.

A physical exam with digital rectal examination (DRE) and anoscopy is recommended 8 to 12 weeks after completing chemoradiation to check the results of treatment. Your provider may also order imaging tests.

Depending on the results, the cancer will be assigned to 1 of the following categories:

- Complete remission – there are no signs of cancer in the body
- Persistent disease – cancer remains in the body but has not grown or spread
- Progressive disease – the cancer has grown or spread

Complete remission

If initial follow-up testing finds no signs of cancer, recommended surveillance is shown in **Guide 3**. In addition to surveillance, a range of other care is important for anal cancer survivors. See *Chapter 4: Survivorship* for more information.

Guide 3
Surveillance during complete remission

Digital rectal exams **Inguinal (groin) lymph node exams**	Every 3 to 6 months for 5 years after treatment
Anoscopy	When possible, anoscopy is recommended every 6 to 12 months for 3 years after treatment. In some people, after treatment with radiation therapy, anoscopy may be too painful or uncomfortable. In this case, your doctor may recommend having an exam under anesthesia. Or, you may decide together to perform anoscopy less often, or to skip it altogether.
Imaging	**Stage 2 and 3 cancers:** Imaging is recommended every year for 3 years. Either of the following is appropriate: • CT of your chest, abdomen, and pelvis with contrast • CT of your chest without contrast and MRI of your abdomen and pelvis with contrast

Persistent disease

If cancer is found at the first follow-up exam, it doesn't mean that treatment didn't work. Some anal cancers take longer to respond to treatment than others. It may be safe to monitor the cancer for as long as 6 months after treatment to see if there is improvement. This may avoid the need for surgery to remove the anus.

If the cancer doesn't go into complete remission or gets worse, see "Progressive disease" below. If the cancer goes into remission, surveillance as described on the previous page is started.

Progressive disease

If the follow-up exam 8 to 12 weeks after treatment finds that the cancer has progressed, a biopsy will be performed to be certain.

If biopsy results confirm progression, the next step is imaging. Imaging can show if the cancer is limited to the anal area (locally progressive) or whether it has spread to areas far from the pelvis (metastatic). Surgery to remove the anus is recommended for locally progressive anal cancer. This surgery is discussed in more detail next.

Before proceeding with surgery, your provider may recommend trying immunotherapy with an immune checkpoint inhibitor. In some patients with anal cancer, immunotherapy has worked well enough that surgery hasn't been needed. However, there isn't much research available on this approach. Talk to your provider about the benefits and risks of delaying surgery to try immunotherapy.

Recurrence

Recurrence is the return of cancer after a cancer-free period. Treatment depends on whether the cancer returns to the anus, to lymph nodes near the anus, or to distant areas, such as the liver or lungs.

If cancer returns to the anus

If cancer returns to the anal area, surgery to remove the anus is recommended. This is called abdominoperineal resection (APR). APR is a fairly radical surgery that requires cutting into the abdomen and the perineum (the area between the anus and genitals) to remove the cancer.

In addition to the anus, APR typically involves removing the rectum, the area where the rectum and colon meet, and the fatty tissue surrounding the rectum. Lymph nodes in the groin will also be removed during surgery if any are known to have cancer.

Radiation treatment for anal cancer weakens and damages the perineum, which can interfere with healing after APR. In some cases, closing the wound requires taking tissue from another area of the body. This is known as muscle flap reconstruction. It can improve healing of the perineum and reduce complications after surgery. A muscle in the lower abdomen, along with skin, fat, and blood vessels, is often used for reconstruction. If APR is planned, ask your provider about muscle flap reconstruction.

Removing the anus means there is no natural way for stool to exit the body. A permanent colostomy is needed. A colostomy connects the end of the colon to the outside of the abdomen. This creates an opening, called

a stoma, on the surface of the abdomen. Stool exits the body through the stoma and goes into a bag attached to the skin.

Before proceeding with this radical surgery, your provider may recommend trying immunotherapy with a checkpoint inhibitor first. Sometimes immunotherapy works well enough for you to avoid surgery. But, there isn't much research available on this approach. Talk to your provider about the benefits and risks of delaying surgery to try immunotherapy.

If cancer returns to lymph nodes

Because most people receive-radiation therapy as part of-initial treatment, it's generally not used again to treat the same area. In this case, you typically have 2 options:

- Surgery to remove the lymph nodes (lymph node dissection)
- Platinum chemotherapy together with immunotherapy

Or, if you didn't receive radiation therapy as part of initial treatment, it's the preferred option for treating lymph nodes with cancer in the groin.

Supportive care

Supportive care is an important part of cancer care. The goal is to improve your quality of life during and after cancer treatment. Supportive care is for everyone with cancer and their families, not just for those at the end of life.

Supportive care includes a wide range of services. Supportive care prevents or manages the symptoms of cancer and the side effects of cancer treatment, like pain and cancer-related fatigue. It also addresses the mental, social, emotional, and spiritual concerns faced by people with cancer.

Supportive care provides help with additional needs, such as:

- Making treatment decisions
- Coordinating your care
- Paying for care
- Planning for advance care and end of life

Read more about the types of support you may receive in *NCCN Guidelines for Patients: Palliative Care*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Surveillance after recurrence treatment

Imaging

Imaging is recommended every year for 3 years after any type of treatment for recurrence. You may have CT of the chest, abdomen, and pelvis with contrast, or CT of the chest without contrast and an MRI of the abdomen and pelvis with contrast.

Lymph node exams

Inguinal lymph node exams are recommended every 3 to 6 months for 5 years after any type of treatment for recurrence.

Digital rectal exams

If you had treatment for cancer in lymph nodes only (you did not have APR), digital rectal exams (DREs) are recommended every 3 to 6 months for 5 years.

Anoscopy

If you had treatment for cancer in lymph nodes only (you didn't need APR), anoscopy is recommended every 6 to 12 months for 3 years.

In some people, after treatment with radiation therapy, anoscopy may not be possible due to discomfort or pain. In this case, your doctor may recommend having an exam under anesthesia. Or, you and your doctor may decide together to omit anoscopy or perform it less often than every 6 to 12 months.

Rely on your team

Get to know your care team. Believe in their skills, knowledge, and experience. They are 1 of your greatest resources during cancer care.



Metastatic anal cancer

This section provides treatment recommendations for anal cancer that has spread beyond the pelvis. If anal cancer metastasizes, it spreads most often to the liver or lungs. When possible, enrolling in a clinical trial for treatment is encouraged.

Metastatic anal cancer is treated with systemic therapy. At this time, the preferred first-line regimen is a combination of platinum chemotherapy and immunotherapy. See **Guide 4**.

Lower-dose radiation therapy is often an option to control tumor growth and relieve symptoms caused by the tumor(s). This is called palliative radiation therapy. If this is planned, care will be taken to ensure that areas initially treated with radiation aren't treated a second time.

Levels of preference

All treatments listed in this guide are recommended and appropriate. When helpful, NCCN experts also assign a level of preference to their recommendations for systemic therapies:

- **Preferred therapies** have the most evidence they may work better and be safer than other therapies.
- **Other recommended therapies** can provide effective results but may have less evidence, more side effects, or may not work quite as well as preferred therapies.
- **Therapies used in certain cases** work best for individuals with specific cancer features or health circumstances.

Guide 4
Metastatic anal cancer: First-line systemic therapies

Preferred first-line therapy	Carboplatin, Paclitaxel plus Retifanlimab-dlwr (Zynyz) Note: The following checkpoint inhibitors are assumed to work as well as retifanlimab (Zynyz) when paired with platinum chemotherapy: Cemiplimab-rwlc (Libtayo), Dostarlimab-gxly (Jemperli), Nivolumab (Opdivo), Pembrolizumab (Keytruda), Penpulimab-kcqx (Anniko), Tislelizumab-jsgr (Tevimbra), Toripalimab-pzi (Loqtorzi).
Other recommended first-line therapies	• CAPEOX (Capecitabine, Oxaliplatin) • Carboplatin, Paclitaxel • FOLFCIS (Leucovorin, Fluorouracil, Cisplatin) • FOLFOX (Leucovorin, Fluorouracil, Oxaliplatin) • Cisplatin, Fluorouracil • Modified DCF (Docetaxel, Cisplatin, Fluorouracil)

Second-line and later options

If the cancer progresses during or after first-line therapy, you have other options. If you didn't receive immunotherapy during first-line therapy, it's the preferred option for second-line therapy (if you're eligible).

Or, if you've already received immunotherapy, the other recommended chemotherapy regimens listed in **Guide 4** are also options for second-line and later treatment.

Side effects of chemotherapy

The most common side effects of the recommended chemotherapy regimens are nausea, vomiting, diarrhea, hair loss, and sores in the mouth and lining of the anus.

Platinum chemotherapy medicines, like carboplatin and cisplatin, can damage the kidneys.

Extended treatment with cisplatin may also cause hearing problems or hearing loss.

Extended treatment with oxaliplatin can cause nerve damage to your fingers and toes. Symptoms include numbness, cramping, tingling, or pain in these areas.

Ask your care team to explain:

- How often you need chemotherapy
- How long you need chemotherapy
- If you will also receive immunotherapy, and if so for how long
- How chemotherapy or immunotherapy will be given (eg, intravenously, orally, infusion pump)

Immunotherapy side effects

Checkpoint inhibitors have unique side effects. Unlike other cancer treatments, the side effects of immunotherapy occur because the immune system is attacking healthy cells in the body. Learning to recognize possible reactions can help you report them sooner to your care team.

More information is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Be sure to inform your care team about how you are feeling and about any new or worsening symptoms.

Clinical trials

A clinical trial is a type of medical research study. After being developed and tested in a lab, potential new ways of fighting cancer need to be studied in people.

If found to be safe and effective in a clinical trial, a drug, device, or treatment approach may be approved by the U.S. FDA.

Everyone with cancer should carefully consider all of the treatment options available for their cancer type, including standard treatments and clinical trials. Talk to your doctor about whether a clinical trial may make sense for you.

Phases

Most cancer clinical trials focus on treatment and are done in phases.

- **Phase 1** trials study the safety and side effects of an investigational drug or treatment approach.
- **Phase 2** trials study how well the drug or approach works against a specific type of cancer.
- **Phase 3** trials test the drug or approach against a standard treatment. If the results are good, it may be approved by the FDA.
- **Phase 4** trials study the safety and benefit of an FDA-approved treatment.

Who can enroll?

It depends on the clinical trial's rules, called eligibility criteria. The rules may be about age, cancer type and stage, treatment history, or general health. They ensure that participants are alike in specific ways and that the trial is as safe as possible for the participants.



Finding a clinical trial

In the United States

NCCN Cancer Centers
NCCN.org/cancercenters

The National Cancer Institute (NCI)
cancer.gov/about-cancer/treatment/clinical-trials/search

Worldwide

The U.S. National Library of Medicine (NLM)
clinicaltrials.gov

Need help finding a clinical trial?

NCI's Cancer Information Service (CIS)
1.800.4.CANCER (1.800.422.6237)
cancer.gov/contact

Informed consent

Clinical trials are managed by a research team. This group of experts will review the study with you in detail, including its purpose and the risks and benefits of joining. All of this information is also provided in an informed consent form. Read the form carefully and ask questions before signing it. Take time to discuss it with people you trust. Keep in mind

that you can leave and seek treatment outside of the clinical trial at any time.

Will I get a placebo?

Placebos (inactive versions of real medicines) are almost never used alone in cancer clinical trials. It is common to receive either a placebo with a standard treatment, or a new drug with a standard treatment. You will be informed, verbally and in writing, if a placebo is part of a clinical trial before you enroll.

Are clinical trials free?

There is no fee to enroll in a clinical trial. The study sponsor pays for research-related costs, including the study drug. But you may need to pay for other services, like transportation or childcare, due to extra appointments. During the trial, you will continue to receive standard cancer care. This care is often covered by insurance.



Take our survey and help make the NCCN Guidelines for Patients better for everyone!

NCCN.org/patients/comments

Key points

- Chemoradiation is recommended for most non-metastatic anal cancers. For some slow-growing stage 1 or 2A perianal cancers, treatment with local excision may be an option instead of chemoradiation.
- Chemoradiation involves treatment with both chemotherapy and radiation therapy during the same 5- to 6-week period. A follow-up exam is recommended 8 to 12 weeks afterward to check the results.
- If no cancer can be found, surveillance will begin. Surveillance during remission includes DREs, lymph node exams, and anoscopy. For stage 2 and 3 cancers, imaging is also recommended for 3 years after treatment.
- Surgery to remove the anus may be needed for anal cancers that don't improve with recommended treatment, or that return afterward. It involves creating a permanent opening for stool to leave the body.
- If cancer returns to groin lymph nodes, your options depend on whether the area has already been treated with radiation. If it has, your options may include a groin dissection or systemic therapy.
- Systemic therapy is recommended for metastatic anal cancer. At this time, the preferred first-line regimen is combined treatment with platinum chemotherapy and immunotherapy.

Questions to ask

- Am I a candidate for surgery instead of chemoradiation?
- What are the side effects of chemoradiation? How can I prevent or minimize them?
- Will I have intensity-modulated radiation therapy (IMRT)?
- What happens during the simulation session needed before radiation therapy?
- Will I need to take steps to ensure the safety of others in my household after radiation therapy?

4
Survivorship

32 Bowel and bladder changes

33 Sexual health

34 Early menopause

35 Mental health and wellness

35 Ostomy care

35 More information

37 Key points

37 Questions to ask

Survivorship begins on the day you learn you have anal cancer. It focuses on the physical, emotional, and financial issues unique to cancer survivors.

Many anal cancer survivors experience changes in their bowel movements and sexual function.

Bowel and bladder changes

Radiation to the anus can cause tissue damage. Over time, scar tissue may form that affects how the anal muscles work. As a result, the following changes to your bowel habits are possible:

- An inability to control bowel movements (fecal incontinence)
- Increase in bowel movements
- Gas (flatulence)
- Urgent need to pass stool (fecal urgency)
- Watery stool

Urinary incontinence (the inability to hold urine in the bladder) and urgency are also possible after radiation therapy for anal cancer.

There are ways to control or lessen these symptoms. Over-the-counter anti-diarrheal medicine can help with frequent and watery bowel movements, as it thickens stool.

Making changes to your diet can also help with bowel and bladder changes. Ask your care team for a list of foods that may help, as well as foods to avoid. Introducing 1 or more of the following may improve symptoms:

- Foods high in insoluble (not soluble) fiber
- Fiber supplements
- Psyllium-based products (like Metamucil)

There is a lot to know about oncology nutrition. Many anal cancer survivors find it helpful to talk to a dietitian who specializes in the nutritional needs of digestive system cancer survivors.

Pelvic floor physical therapy

The pelvic floor is a group of muscles that supports the organs of the pelvis. These muscles play a key role in bowel and bladder control and well as sexual function and arousal.

There are ways to strengthen these muscles before and after treatment. This is known as pelvic floor physical therapy, and there are health care professionals who specialize in it.

Ask your care team for help finding a pelvic floor specialist in your area. Pelvic floor therapy can include at-home exercises to tighten and release the vaginal and anal muscles (Kegel exercises) as well as hands-on techniques by a physical therapist.

Sexual health

Treatment for anal cancer can cause changes to your sexual health and function, including:

- Difficulty getting an erection
- Reduced sex drive (libido)
- Vaginal dryness
- Pain during sex
- Narrowing and shortening of the vagina

While it may be uncomfortable to talk about sexual health, keep in mind that these side effects are common and can often be managed or lessened. Consider seeing a sexual health therapist. These health care professionals specialize in helping cancer survivors and others overcome and manage sexual side effects of cancer treatment.

Many cancer treatment centers have programs focused solely on sexual health after anal cancer treatment. Ask your provider about resources available through your cancer center that can help minimize the impact of cancer treatment on your sexual health.

Vaginal dilator therapy

Radiation therapy to the pelvic area can cause the vagina to become shorter and narrower. This is called vaginal stenosis. Vaginal stenosis can make it uncomfortable or even painful to have sex, or to have vaginal exams by a doctor.

Vaginal dilator therapy can help during and after radiation therapy. A vaginal dilator is a device used to gradually stretch or widen the vagina. Different sizes are available, as are dilator kits containing different size devices. The size of the dilator can be increased over time as the vagina lengthens and widens.

Using a dilator during radiation treatment sessions can help maintain sexual health after treatment.

Survivorship begins at diagnosis. It focuses on your health and well-being during and after cancer treatment.

Support from family members, friends, and caregivers is an important part of survivorship.



Early menopause

Until menopause, the ovaries make hormones needed for menstruation and natural pregnancy. Radiation damages the ovaries, causing hormone levels to drop. This impairs fertility and may also cause symptoms of menopause, including:

- Stopping of periods
- Hot flashes
- Sleeping problems
- Night sweats
- Weight gain
- Changes in mood
- Vaginal dryness

Menopausal hormone therapy may help lessen these side effects. Speaking with a menopause specialist or team may be helpful to determine whether this therapy is right for you.

Hormone changes in those assigned male at birth

Radiation damages the testicles and disrupts their ability to make hormones, such as testosterone. Symptoms of low testosterone can include:

- Reduced sex drive (libido)
- Difficulty getting an erection
- Mood changes
- Fatigue
- Increased body fat



Let us know what you think!

Please take a moment to complete an online survey about the NCCN Guidelines for Patients.
NCCN.org/patients/response

If you're experiencing any of these symptoms, tell your care team. You may need further evaluation and management.

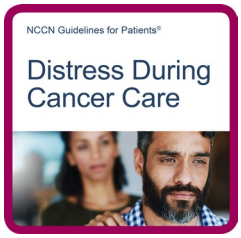
Mental health and wellness

The effects of anal cancer and its treatment can be difficult to cope with. Many survivors report having an overall lower quality of life after cancer treatment.

In addition to effects on bowel, bladder, and sexual function, more general effects, such as fatigue, trouble breathing, and difficulty sleeping, are common. Many anal cancer survivors are also hesitant to share their diagnosis out of a fear of being judged by others. This can be isolating and distressing.

If you're anxious, distressed, depressed, or just having trouble coping with life after cancer, you're not alone. Expect your care team to ask about your mental health. If they don't, speak up. There are resources available that can help. Social workers at your treatment site can connect you with mental health and financial resources.

For more information, see *NCCN Guidelines for Patients: Distress During Cancer Care* at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Ostomy care

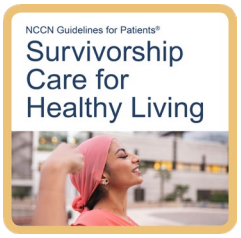
If you have an ostomy, you may want to join an ostomy support group. Another option is to see a health care provider who specializes in ostomy care, such as an ostomy nurse.

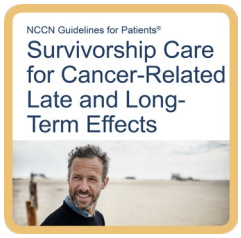
You can lead an active lifestyle with an ostomy. But it's a good idea to speak with an ostomy professional before doing any highly rigorous activities.

More information

For more information on cancer survivorship, the following are available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app:

- *Survivorship Care for Healthy Living*
- *Survivorship Care for Cancer-Related Late and Long-Term Effects*





Healthy habits for cancer survivors



Follow your primary care provider's recommendations for screening for other cancers based on your age, sex, and risk level



Get other recommended health care, such as blood pressure checks, hepatitis C screening, and immunizations (like the flu shot)



Eat a diet rich in plant-based foods. Limit red meat and processed foods.



Alcohol can increase the risk of some cancers. Drink little to no alcohol.



Move more, rest less. Try to exercise at a moderate intensity for at least 150 minutes per week.



Maintain a healthy weight. Tracking your weight, food intake, calories, and activity levels may help you meet your goals.



Stop using tobacco. Ask your care team about options to help you quit. Counseling and medication are often options.



Radiation treatment to the pelvis increases the risk of pelvic fractures. Your provider may start checking your bone density.

Key points

- Survivorship focuses on the physical, emotional, and financial issues unique to cancer survivors.
- A survivorship care plan is helpful in transitioning your care to your primary care doctor.
- Keeping up with healthy habits can help prevent second cancers and other health problems.
- If you have concerns about paying for your cancer care, financial help may be available.

Questions to ask

- Can you give me a survivorship care plan?
- Does this treatment center have a survivorship care program?
- What can I expect during a survivorship care visit?



We want your feedback!

Our goal is to provide helpful and easy-to-understand information on cancer. Take our survey to let us know what we got right and what we could do better.
NCCN.org/patients/feedback

5
Other resources

39 What else to know

39 What else to do

39 Where to get help

40 Questions to ask

Want to learn more? Here's how you can get additional help.

What else to know

This guide helps you know your options so you can make informed decisions and improve your cancer care. But it's not the only resource that you have.

Ask for as much information and help as you need. Many people are interested in learning more about:

- Managing side effects
- Connecting with other cancer survivors
- Building a support system
- Making lifestyle changes
- Managing other health problems

What else to do

Your health care center can help you with next steps. It often has onsite resources to help meet your needs and find answers to your questions. Health care centers can also inform you of resources in your community.

In addition to help from your providers, the resources listed in the next section provide support for many people like yourself.

Where to get help

Look through the list below and visit the provided websites to learn more about these organizations.

Anal Cancer Foundation
analcancerfoundation.org

Cancer*Care*
cancercare.org

Cancer Hope Network
cancerhopenetwork.org

Cancer Survivor Care
cancersurvivorcare.org

Colorectal Cancer Alliance
ccalliance.org

Fight Colorectal Cancer
fightcolorectalcancer.org

GRACE
cancergrace.org

HPV Cancers Alliance
hpvalliance.org

Imerman Angels
imermanangels.org

Love Your Buns
loveyourbuns.org

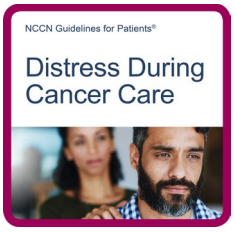
Triage Cancer
triagecancer.org

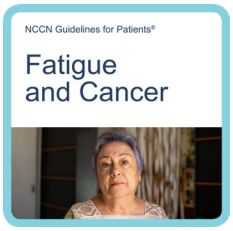
Questions to ask

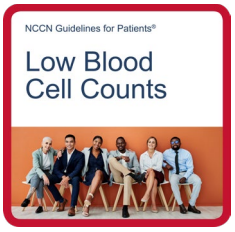
- Who can I talk to about help with housing, food, and other basic needs?
- What help is available for transportation, childcare, and home care?
- Are there other services available to me and my caregivers?

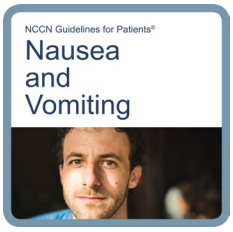
Supportive care resources

More information on supportive care is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.

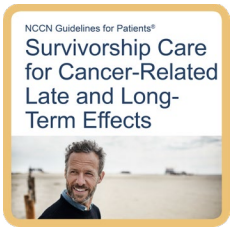














Words to know

abdominoperineal resection (APR)
A type of surgery that may be needed if anal cancer doesn't respond to initial treatment or returns after treatment. APR removes the anus, rectum, nearby cancerous lymph nodes, and other tissues. A permanent colostomy is needed.

anal canal
The tiny section of the large intestine that connects the rectum and the anal opening. Where most anal cancers start.

anal sphincter
A ring-shaped muscle around the opening of the anus that relaxes or tightens to open or close the anus.

anus
The opening at the end of the large bowel through which stool exits the body.

chemoradiation
The use of both chemotherapy and radiation therapy during the same time period to treat cancer. A common first treatment for anal cancer.

clinical trial
A research study using investigational treatments that may, in time, be approved by the U.S. FDA.

colostomy
A surgery that allows stool to leave the body after the anus is removed. The end of the bowel is attached to an opening in the surface of the abdomen. Stool is collected in a disposable bag outside of the body.

groin
The area of the body where the thigh meets the abdomen.

human papillomavirus (HPV)
The most common sexually transmitted infection. Anal cancer is almost always caused by HPV infection.

inguinal lymph nodes
Lymph nodes in the groin.

intensity-modulated radiation therapy (IMRT)
A type of external beam radiation therapy (EBRT) preferred for treating anal tumors.

libido
Sexual desire or the mental energy or emotion related to sex.

perianal region
The anal opening and the skin directly surrounding it. Also called the anal margin.

supportive care
A range of resources and care to improve quality of life for cancer survivors.

systemic therapy
Treatment with anti-cancer medicines that affect cells throughout the body. Chemotherapy is a systemic therapy.

vaginal stenosis
A condition in which the vagina becomes narrower and shorter. Often caused by radiation therapy to the pelvis or some types of surgery. The lining of the vagina may also become thinner and drier and contain scar tissue.

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This patient guide is based on the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Anal Carcinoma, Version 2.2026. It was adapted, reviewed, and published with help from the following people:

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