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Penile Cancer Early Detection, Diagnosis, and Staging

Detection and Diagnosis

Finding cancer early, when it's small and before it has spread, often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that's not always the case.

- Can Penile Cancer Be Found Early?
- Signs and Symptoms of Penile Cancer
- Tests for Penile Cancer

Stages of Penile Cancer

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

Penile Cancer Stages

Outlook (Prognosis)

Doctors often use survival rates as a standard way of discussing a person's outlook (prognosis). These numbers can't tell you how long you will live, but they might help you better understand your prognosis. Some people want to know the survival statistics for people in similar situations, while others might not find the numbers helpful, or might even not want to know them.

Survival Rates for Penile Cancer

Questions to Ask About Penile Cancer

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

Questions To Ask About Penile Cancer

Can Penile Cancer Be Found Early?

There are no widely recommended screening tests for penile cancer, but many penile cancers can be found early, when they're small and before they have spread to other parts of the body.

Almost all penile cancers start in the skin, so they're often noticed early. Cancers that start under the foreskin may not be seen as quickly, especially if a man has phimosis (constriction of the foreskin). Some penile cancers cause symptoms that could also be caused by a disease other than cancer.

Even if a man sees or feels something abnormal, he may not recognize it as something that needs medical attention right away. You should see a doctor if you find a new redness, growth, or other change in your penis, even if it's not painful. Things like warts, blisters, sores, ulcers, white patches, or other abnormal areas need to be checked by a doctor. Most are not cancer, but they may be caused by an infection or some other condition that needs to be treated.

Some men avoid going to the doctor for lesions (changes) on their penis. In fact, many put off seeking treatment for a year or more after they first notice the problem. Don't let embarrassment or fear keep you from having these changes checked. Most penile cancers are easy to treat in the early stages.

If a cancer is found early, it can often be removed with little or no damage to the penis. But if it's not diagnosed until later, part of or all of the penis may need to be removed to treat the cancer. More advanced cancers are also more likely to require other, more invasive treatments, and may even be life threatening.

References

See all references for Penile Cancer (www.cancer.org/cancer/penile-cancer/references.html)

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Signs and Symptoms of Penile Cancer

The signs and symptoms below don't always mean a man has penile cancer. In fact, many are more likely to be caused by other conditions. Still, if you have any of them, see a doctor right away so their cause can be found and treated, if needed. The sooner a diagnosis is made, the sooner you can start treatment and the better it is likely to work.

Skin changes

The first sign of penile cancer is most often a change in the skin of the penis. This is most likely to be on the glans (tip) of the penis or on the foreskin (in uncircumcised men), but it can also be on the shaft. These changes may include:

- An area of skin becoming thicker
- Changes in the skin color
- A lump
- An ulcer (sore) that might bleed
- A reddish, velvety rash under the foreskin

- Small, crusty bumps
- Flat, bluish-brown growths
- Smelly discharge (fluid) or bleeding under the foreskin

Sores or lumps from penile cancer usually don't hurt, but they might. You should see a doctor if you find any kind of new growth or other abnormality on your penis, even if it's not painful. Any change that doesn't get better in about 4 weeks, or gets worse, should be checked by a doctor.

Swelling

Swelling at the end of the penis, especially when the foreskin is constricted, is another possible sign of penile cancer. It may be harder to draw back the foreskin.

Lumps under the skin in the groin area

If the cancer spreads from the penis, it most often travels first to <u>lymph nodes</u>¹ in the groin. This can make those lymph nodes swell. Lymph nodes are collections of immune system cells. Normally, they are bean-sized and can barely be felt at all. If they're swollen, the lymph nodes may feel like smooth lumps under the skin.

But swollen lymph nodes don't always mean that cancer has spread there. More commonly, lymph nodes swell in response to an infection. The skin in and around a penile cancer can often become infected, which might cause the nearby lymph nodes to swell, even if the cancer hasn't reached them.

Hyperlinks

1. www.cancer.org/cancer/cancer-basics/lymph-nodes-and-cancer.html

References

See all references for Penile Cancer (www.cancer.org/cancer/penile-cancer/references.html)

American Society of Clinical Oncology. Penile Cancer: Symptoms and Signs. 8/2017. Accessed at www.cancer.net/cancer-types/penile-cancer/symptoms-and-signs on May 27, 2018.

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Urology Care Foundation. What are Symptoms of Penile Cancer? Accessed at www.urologyhealth.org/urologic-conditions/penile-cancer/symptoms on May 27, 2018.

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Tests for Penile Cancer

If you have possible symptoms of penile cancer you should go to a doctor. A physical exam will be done and you might also need some tests to find out what's causing your symptoms.

Medical history and physical exam

The doctor will talk to you about your medical history and the details of your symptoms, like when they started and if they've changed. You'll also discuss any possible risk factors you have.

The doctor will also look at your genital area carefully for possible signs of penile cancer or other health problems. Penile lesions (sores) usually affect the skin on the penis, so a doctor often can find cancers and other problems by looking closely at the penis. The doctor may look at and feel the <u>lymph nodes</u>¹ in your groin to see if they are swollen.

If symptoms and/or the exam suggest you might have penile cancer, other <u>tests</u>² will be needed. These might include a biopsy and imaging tests.

Biopsy

A biopsy is the only sure way to know if a change is penile cancer. To do this, a small piece of tissue is taken from the changed area and sent to a lab. There, it's looked at

with a microscope to see if it contains cancer cells. The results are usually available in a few days, but may take longer in some cases There are many ways a biopsy can be done:

Incisional biopsy

For an incisional biopsy only a part of the changed area is removed. This type of biopsy is often done for lesions that are big, ulcerated (the top layer of skin is missing or the lesion appears as a sore), or that appear to grow deeply into the penis.

These biopsies are usually done with local anesthesia (numbing medicine) in a doctor's office, clinic, or outpatient surgical center.

Excisional biopsy

In an excisional biopsy, the entire lesion is removed. This type of biopsy is most often used if the lesion is small, such as a nodule (lump) or plaque (raised, flat area).

These biopsies are usually done in a hospital or outpatient surgical center. Local anesthesia (numbing medicine) or general anesthesia (where you are asleep) may be used.

Lymph node biopsy

If the cancer has spread deep within the penis, nearby lymph nodes usually will need to be checked for cancer spread. This is done to help find the stage (extent) of the cancer after the diagnosis. These lymph nodes can be checked either with fine needle aspiration or by doing surgery to remove them.

Fine needle aspiration (FNA): To do this type of biopsy, the doctor puts a thin, hollow needle right into the lymph node and uses a syringe to pull out cells and a few drops of fluid. Local anesthesia may be put into the skin over the node to numb the area first.

If the enlarged lymph node is deep inside your body and the doctor can't feel it, imaging methods such as ultrasound or CT scans can be used to guide the needle into the node.

This type of biopsy is often done to see if enlarged lymph nodes contain cancer. It's not used to sample lesions on the penis itself. This procedure can be done in a doctor's office or clinic.

Surgical biopsy: In some cases, the lymph nodes are not checked with FNA, but instead surgery is done to remove one or more lymph nodes. These surgical lymph node biopsies, which include sentinel lymph node biopsy and lymphadenectomy, are described in Surgery for Penile Cancer³.

To learn more, see <u>Testing Biopsy and Cytology Specimens for Cancer</u>⁴.

Imaging tests

<u>Imaging tests</u>⁵ use x-rays, magnetic fields, or sound waves to create pictures of the inside of your body. If the doctor thinks the cancer has spread, then one or more of these tests may be used to help find the stage of the cancer.

Computed tomography (CT)

A CT scan uses x-rays to make detailed cross-sectional images of your body. It can show how big the tumor is and can also help see if the cancer has spread to lymph nodes or other parts of the body.

CT-guided needle biopsy: CT scans can be used to guide a biopsy needle into an enlarged lymph node or other area that might be cancer spread. To do this, you stay on the CT table while a doctor moves a biopsy needle through your skin and toward the mass. CT scans are repeated until the needle is inside the mass. A biopsy sample is then removed and sent to be checked under a microscope.

Magnetic resonance imaging (MRI)

Like CT scans, MRIs show detailed images of soft tissues in the body. But MRI scans use radio waves and strong magnets instead of x-rays.

MRI pictures are better if the penis is erect. The doctor might inject a hormone-like substance called **prostaglandin** into the penis to make it erect.

Ultrasound

Ultrasound uses sound waves to make pictures of internal organs or masses. It can be useful to find out how deeply the cancer has spread into the penis. It can also help find enlarged lymph nodes in the groin.

This test is painless and does not expose you to radiation. For most ultrasound exams,

the skin is first lubricated with gel. Then a technician moves the transducer over the skin of the penis.

Chest x-ray

An x-ray might be done to see if the cancer has spread to the lungs.

Hyperlinks

- 1. www.cancer.org/cancer/cancer-basics/lymph-nodes-and-cancer.html
- 2. www.cancer.org/treatment/understanding-your-diagnosis/tests.html
- 3. www.cancer.org/cancer/penile-cancer/treating/surgery.html
- 4. <u>www.cancer.org/treatment/understanding-your-diagnosis/tests/testing-biopsy-and-cytology-specimens-for-cancer.html</u>
- 5. <u>www.cancer.org/treatment/understanding-your-diagnosis/tests/imaging-radiology-tests-for-cancer.html</u>

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See all references for Penile Cancer (www.cancer.org/cancer/penile-cancer/references.html)

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Penile Cancer Stages

After a man is diagnosed with penile cancer, doctors will try to figure out if it has spread,

and if so, how far. This process is called **staging**. The stage of a cancer describes how much cancer is in the body. It helps determine how serious the cancer is and how best to <u>treat</u>¹ it. Doctors also use a cancer's stage when talking about survival statistics.

The earliest stage of penile cancer is stage 0, which means the cancer hasn't spread beyond the top layer of skin. The other stages range from I (1) through IV (4). Some stages also use capital letters (A, B, etc.). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means cancer has spread more. Cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

How is the stage determined?

The staging system most often used for penile cancer is the American Joint Committee on Cancer (AJCC) **TNM** system, which is based on 3 key pieces of information:

- The extent of the main **tumor (T):** How far has the cancer grown into the penis, and has it reached nearby tissues or organs?
- The spread to nearby lymph **nodes (N):** Has the cancer spread to nearby lymph nodes (in the groin and pelvic area)? If so, how many are affected?
- The spread (**metastasis**) to distant sites (**M**): Has the cancer spread to distant parts of the body? (The most common sites of spread are distant lymph nodes or organs like the lung, liver, or bones.)

Numbers or letters after T, N, and M provide more details about each of these factors. Higher numbers mean the cancer is more advanced.

Another factor that can affect the stage of some cancers is the **grade** of the cancer cells. This is a measure of how different the cancer cells look from normal cells. The grade is often noted with a number, from 1 to 3. The higher the number, the more abnormal the cells look. Higher-grade cancers tend to grow and spread faster than lower-grade cancers.

Once the T, N, and M categories (and grade) of the cancer have been determined, this information is combined in a process called **stage grouping** to assign an overall stage. For more on this, see Cancer Staging².

The system described below is the most recent AJCC system, effective January 2018. It's used for <u>squamous cell carcinoma of the penis</u>³, which is by far the most common type of penile cancer. Other types of cancer starting on the penis, such as <u>melanomas</u>⁴

and sarcomas⁵, are much less common and are staged with different systems.

Penile cancer is typically given a **clinical stage** based on the results of a physical exam, biopsy, and any imaging tests that might have been done. If surgery has been used to check nearby lymph nodes for cancer, the **pathologic stage** (also called the surgical stage) can be determined. The pathologic stage is typically more accurate, and is what's used in the table below.

Penile cancer staging can be complex, so ask your doctor to explain your stage to you in a way you understand.

Stages of penile cancer

| AJCC stage | Stage grouping | Stage description* | |
|---------------|--------------------|---|--|
| 0 (0is or 0a) | Tis or Ta N0 M0 | Also called carcinoma in situ or CIS. The tumor is only in the top layer of the skin and has not grown any deeper (Tis or Ta). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0). | |
| I | T1a N0 M0 | The tumor has grown into tissue just below the top layer of skin. It hasn't grown into nearby blood vessels, lymph vessels, or nerves, and it's not high grade (grade 3) (T1a). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0). | |
| | T1b N0 M0 | The tumor has grown into tissue just below the top layer of skin. It has grown into nearby blood vessels, lymph vessels, or nerves, and/or it's high grade (grade 3) (T1b). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0). | |
| | OR | | |
| IIA | T2 N0 M0 | The cancer has grown into the corpus spongiosum (an internal chamber that runs along the bottom and into the head of the penis). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0). | |

| IIB | The cancer has grown into the corpus cavernosum (either of internal chambers that run along the top of the shaft of the penis). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0). | | | |
|------|--|---|--|--|
| IIIA | T1-T3 N1 M0 | The tumor has grown into tissue below the top layer of skin and may have grown into the corpus spongiosum and/or the corpus cavernosum (T1 to T3). The cancer has spread to 1 or 2 nearby inguinal (groin) lymph nodes on the same side of the body (N1). It has not spread to distant parts of the body (M0). | | |
| IIIB | The tumor has grown into tissue below the top layer of skin a may have grown into the corpus spongiosum and/or the corpcavernosum (T1 to T3). T1-T3 N2 M0 The cancer has spread to 3 or more nearby inguinal (groin) lymph nodes on the same side of the body, or to inguinal lymnodes on both sides of the body (N2). It has not spread to distant parts of the body (M0). | | | |
| | T4 Any N M0 | The tumor has grown into nearby structures such as the scrotum, prostate, or pubic bone (T4). The cancer might or might not have spread to nearby lymph nodes (any N). It has not spread to distant parts of the body (M0). | | |
| IV | OR | | | |
| | Any T N3 M0 | The tumor might or might not have grown into deeper layers of the penis or nearby structures (any T). The cancer has spread to nearby lymph nodes in the pelvis, or it has grown outside of a lymph node and into the surrounding tissue (N3). The cancer has not spread to distant parts of the body (M0). | | |

| OR | OR | | |
|-------------------|---|--|--|
| Any T Any N M1 | The tumor might or might not have grown into deeper layers of the penis or nearby structures (any T). The cancer might or might not have spread to nearby lymph nodes (any N). The cancer has spread to distant parts of the body (M1). | | |

^{*} The following additional categories are not listed on the table above:

- TX: Main tumor cannot be assessed due to lack of information.
- T0: No evidence of a primary tumor. The N categories are described in the table above, except for:
- NX: Regional lymph nodes cannot be assessed due to lack of information.

Hyperlinks

- 1. www.cancer.org/cancer/testicular-cancer/treating.html
- 2. www.cancer.org/treatment/understanding-your-diagnosis/staging.html
- 3. www.cancer.org/cancer/testicular-cancer/about/what-is-testicular-cancer.html
- 4. www.cancer.org/cancer/melanoma-skin-cancer.html
- 5. www.cancer.org/cancer/soft-tissue-sarcoma.html

References

American Joint Committee on Cancer. Penis. In: *AJCC Cancer Staging Manual*. 8th ed. New York, NY: Springer; 2017: 701-714.

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Survival Rates for Penile Cancer

Survival rates can give you an idea of what percentage of people with the same type and stage of cancer are still alive a certain amount of time (usually 5 years) after they were diagnosed. They can't tell you how long you will live, but they may help give you a better understanding of how likely it is that your treatment will be successful.

Keep in mind that survival rates are estimates and are often based on previous outcomes of large numbers of people who had a specific cancer, but they can't predict what will happen in any particular person's case. These statistics can be confusing and may lead you to have more questions. Talk with your doctor about how these numbers may apply to you, as he or she is familiar with your situation.

What is a 5-year relative survival rate?

A **relative survival rate** compares men with the same type and stage of penile cancer to men in the overall population. For example, if the **5-year relative survival rate** for a specific stage of penile cancer is 80%, it means that men who have that cancer are, on average, about 80% as likely as men who don't have that cancer to live for at least 5 years after being diagnosed.

Where do these numbers come from?

The American Cancer Society relies on information from the SEER* database, maintained by the National Cancer Institute (NCI), to provide survival statistics for different types of cancer.

The SEER database tracks 5-year relative survival rates for penile cancer in the United States, based on how far the cancer has spread. The SEER database, however, does not group cancers by AJCC TNM stages (stage 1, stage 2, stage 3, etc.). Instead, it groups cancers into localized, regional, and distant stages:

- Localized: The cancer is confined to the penis.
- **Regional:** The cancer has spread outside of the penis to nearby structures or nearby lymph nodes.
- **Distant:** The cancer has spread to distant parts of the body such as the lungs, liver or bones.

5-year relative survival rates for penile cancer

(Based on men diagnosed with penile cancer between 2009 and 2015.)

| SEER Stage | 5-Year Relative Survival Rate |
|--------------------------|-------------------------------|
| Localized | 82% |
| Regional | 50% |
| Distant | 12% |
| All SEER stages combined | 67% |

Understanding the numbers

- These numbers apply only to the stage of the cancer when it is first diagnosed. They do not apply later on if the cancer grows, spreads, or comes back after treatment.
- These numbers don't take everything into account. Survival rates are grouped based on how far the cancer has spread, but your age, overall health, how well the cancer responds to treatment, and other factors can also affect your outlook.
- Men now being diagnosed with penile cancer may have a better outlook than these numbers show. Treatments improve over time, and these numbers are based on men who were diagnosed and treated at least five years earlier.

References

Howlader N, Noone AM, Krapcho M, et al (eds). SEER Cancer Statistics Review, 1975-2016, National Cancer Institute, Bethesda, MD, https://seer.cancer.gov/csr/1975_2016/, based on November 2018 SEER data submission, posted to the SEER website, April 2019.

See all references for Penile Cancer (www.cancer.org/cancer/penile-cancer/references.html)

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^{*}SEER= Surveillance, Epidemiology, and End Results

Questions To Ask About Penile Cancer

It's important to have honest, open discussions with your cancer care team. You should ask any question, no matter how small it might seem. Here are some you might want to ask:

- What kind of penile cancer do I have?
- How deep has the cancer grown into my penis? Has it spread to lymph nodes or other organs?
- What is the stage of my cancer and what does that mean?
- Do I need more tests before we can decide on treatment?
- Do I need to see any other types of doctors?
- How much experience do you have treating this type of cancer?
- What are my treatment choices¹?
- What do you recommend and why?
- What's the goal of treatment? To cure the cancer? Keep it under control?
- How quickly do we need to decide on treatment?
- What should I do to be ready for treatment?
- How long will treatment last? What will it be like? Where will it be done?
- Will treatment change how my penis looks or the size of my penis?
- Will treatment affect how I urinate?
- Will I be able to have sex or have children after treatment?
- Will I need surgery on my groin lymph nodes?
- Will my insurance cover treatment? How much will I have to pay?
- How long will it take me to recover from treatment?
- When can I go back to my regular activities after treatment?
- What are the risks or side effects to the treatments you suggest?
- What are the chances that my cancer will come back² after treatment? What would we do if that happens?
- What type of follow-up³ will I need after treatment?

Along with these sample questions, be sure to write down some of your own. For instance, you may want to ask about <u>getting a second opinion</u>⁴ or about <u>clinical trials</u>⁵ that might be right for you.

Keep in mind that doctors aren't the only ones who can give you information. Other health care professionals, such as nurses and social workers, may have the answers to some of your questions. You can find out more in The Doctor-Patient Relationship6.

Hyperlinks

- 1. www.cancer.org/cancer/penile-cancer/treating.html
- 2. <u>www.cancer.org/treatment/survivorship-during-and-after-treatment/understanding-recurrence.html</u>
- 3. www.cancer.org/cancer/penile-cancer/after-treatment.html
- 4. <u>www.cancer.org/treatment/finding-and-paying-for-treatment/choosing-your-treatment-team/seeking-a-second-opinion.html</u>
- 5. www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html
- 6. <u>www.cancer.org/treatment/finding-and-paying-for-treatment/choosing-your-treatment-team/the-doctor-patient-relationship.html</u>

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See all references for Penile Cancer (www.cancer.org/cancer/penile-cancer/references.html)

American Society of Clinical Oncology. Penile Cancer: Questions to Ask the Health Care Team. 8/2017. Accessed at www.cancer.net/cancer-types/penile-cancer/questions-ask-health-care-team on May 27, 2018.

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