Penile Cancer Early Detection, Diagnosis, and Staging

Detection and Diagnosis

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

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

Stages of Penile Cancer

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

- What Should You Ask Your Doctor 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.

Almost all penile cancers start in the skin, so they are often noticed early in the course of the disease. 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 may 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 growth or other abnormality of your penis, even if it is not painful. Things like warts, blisters, sores, ulcers, white patches, or other abnormal areas need to be looked at by a doctor. Most are not cancer, but they may be caused by an infection or some other condition that needs to be treated.

Unfortunately, some men avoid going to the doctor for lesions (abnormalities) on their penis. Many men with penile lesions put off seeking treatment for a year or more after they first notice the problem.

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

- References

See all references for Penile Cancer

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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 of them are more likely to be caused by other conditions. Still, if you have any of these signs or symptoms, see your doctor right away so the cause can be found and treated, if needed. The sooner a diagnosis is made, the sooner you can start treatment and the more effective it is likely to be.

Skin changes

Most often, the first sign of penile cancer is 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. Possible signs of penile cancer include:

- An area of skin becoming thicker and/or changing color
- A lump on the penis
- An ulcer (sore) that might bleed
- A reddish, velvety rash
- Small, crusty bumps
- Flat, bluish-brown growths
- Smelly discharge (fluid) under the foreskin

Sores or lumps from penile cancer are not usually painful, but they can be in some cases. You should see a doctor if you find any kind of new growth or other abnormality on your penis, even if it is not painful.

Swelling

Swelling at the end of the penis, especially when the foreskin is constricted, is another possible sign of penile cancer.

Lumps under the skin in the groin area

If the cancer spreads from the penis, it most often travels first to lymph nodes 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 are swollen, the lymph nodes may be felt as 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.

- References
  See all references for Penile Cancer

How Is Penile Cancer Diagnosed?

If you have possible symptoms of penile cancer you should go to a doctor, who will examine you and might order some tests.

**Medical history and physical exam**

Your doctor will need to take a complete medical history to get details about your symptoms and any possible risk factors you have.

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

If symptoms and/or the results of the exam suggest you might have penile cancer, you will need other tests. These might include a biopsy and imaging tests.

**Biopsy**

A biopsy is needed to diagnose penile cancer. In this procedure, a small piece of tissue from the abnormal area is removed and sent to a lab, where it is looked at under 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.

The type of biopsy used depends on the nature of the abnormality.

**Incisional biopsy**

For an incisional biopsy only a part of the abnormal area is removed. This type of biopsy is often done for lesions that are larger, are 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 more often used if the abnormal area is small, such as a nodule (lump) or plaque (raised, flat area). If the abnormal area is only on the foreskin, your doctor might recommend circumcision (removal of the foreskin) as a form of excisional biopsy.

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

**Fine needle aspiration (FNA):** For this type of biopsy, the doctor places a thin, hollow needle directly into the lymph node and withdraws cells and a few drops of fluid. Local anesthesia may be injected into the skin over the node to numb the area.

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 is 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 through surgery 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 Cancer*.

To learn more about biopsies, see *Testing Biopsy and Cytology Specimens for Cancer*.

**Imaging tests**

Imaging tests use x-rays, magnetic fields, or sound waves to create pictures of the inside of your body. If the doctor thinks the cancer is advanced or has spread, then one or more of these tests may be ordered to help determine the stage of the cancer.

**Computed tomography (CT)**

The CT scan uses x-rays to make detailed cross-sectional images of your body. Instead of taking one picture, like a standard x-ray, a CT scanner takes many pictures as it rotates around you. A computer then combines these pictures into images of slices of part of your body.

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

Before the test, you may be asked to drink 1 to 2 pints of a liquid called *oral contrast* and/or get an intravenous (IV) injection of a contrast dye that helps better outline abnormal areas in the body. The injection can cause some flushing (redness and warm feeling). A few people are allergic to the dye and get hives or, rarely, more serious reactions like trouble breathing and low blood pressure. Medicine can be given to help prevent and treat allergic reactions. Be sure to tell the doctor if you have any allergies (especially to iodine or shellfish) or if you have ever had a reaction to any contrast material used for x-rays.

**CT-guided needle biopsy:** CT scans can be used to guide a biopsy needle into an enlarged lymph node or other area of possible cancer spread. For this procedure, you remain on the CT scanning table while a doctor moves a biopsy needle through the skin
and toward the mass. CT scans are repeated until the needle is within the mass. A biopsy sample is then removed and sent to be looked at under a microscope.

**Magnetic resonance imaging (MRI)**

Like CT scans, MRI scans provide detailed images of soft tissues in the body. But MRI scans use radio waves and strong magnets instead of x-rays to create the images. A contrast material might be injected just as with CT scans, but this is used less often.

When MRI scans are used to look at penile tumors, the pictures are better if the penis is erect. The doctor can inject a substance called *prostaglandin* into the penis to make it erect.

MRI scans take longer than CT scans – often up to an hour – and are a little more uncomfortable. You may have to lie on a table that slides inside a narrow tube, which can upset people with a fear of enclosed spaces. Special, more open MRI machines can sometimes help with this if needed, but the drawback is that the images may not be as clear. The MRI machine makes buzzing and clicking noises that you may find disturbing. Some places will provide earplugs to help block this noise out. MRIs are not safe for people with pacemakers or certain implants containing metals that are strongly attracted to magnets.

**Ultrasound**

This test uses sound waves to make pictures of internal organs or masses. It can be useful for determining how deeply the cancer has penetrated into the penis. It can also show enlarged lymph nodes in the groin.

For this test, a small microphone-like instrument called a *transducer* gives off sound waves and picks up the echoes as they bounce off body tissues. The echoes are converted by a computer into an image on a computer screen.

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 above the part of your body being examined.

- **References**
  See all references for Penile Cancer

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Penile Cancer Stages

After someone 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 treat it. Doctors also use a cancer's stage when talking about survival statistics.

The earliest stage of penile cancer is stage 0, in which the cancer hasn't invaded 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. Although each person's cancer experience is unique, 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 structures 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 such as 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 abnormal the cancer cells look under a microscope. The grade is often expressed as a number, from 1 to 3. The higher the number, the more abnormal the cells look. Higher-grade cancers tend to grow and spread more quickly 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 information, see Cancer Staging.

The system described below is the most recent AJCC system, effective January 2018. It is used for squamous cell carcinoma of the penis, which is by far the most common type of penile cancer. Other types of cancer starting on the penis, such as melanomas and sarcomas, 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 (as described in How Is Penile Cancer Diagnosed?). 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 is used in the table below.

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

### Stages of penile cancer

<table>
<thead>
<tr>
<th>AJCC stage</th>
<th>Stage grouping</th>
<th>Stage description*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (0is or 0a)</td>
<td>Tis or Ta N0 M0</td>
<td>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).</td>
</tr>
<tr>
<td>I</td>
<td>T1a N0 M0</td>
<td>The tumor has grown into tissue just below the top layer of skin. It has not grown into nearby blood vessels, lymph vessels, or nerves, and it is not high grade (grade 3) (T1a). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0).</td>
</tr>
<tr>
<td>IIA</td>
<td>T1b N0 M0</td>
<td>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 is high grade (grade 3) (T1b). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0).</td>
</tr>
<tr>
<td>OR</td>
<td>T2 N0 M0</td>
<td>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).</td>
</tr>
<tr>
<td>Stage</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>IIB</td>
<td>T3 N0 M0 The cancer has grown into the corpus cavernosum (either of 2 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).</td>
<td></td>
</tr>
<tr>
<td>IIIA</td>
<td>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).</td>
<td></td>
</tr>
<tr>
<td>IIIB</td>
<td>T1-T3 N2 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 3 or more nearby inguinal (groin) lymph nodes on the same side of the body, or to inguinal lymph nodes on both sides of the body (N2). It has not spread to distant parts of the body (M0).</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>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).</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>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).</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>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).</td>
<td></td>
</tr>
</tbody>
</table>

* 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.

  • **References**

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## Survival Rates for Penile Cancer

Survival rates are a way for doctors and patients to get a general idea of the outlook for people with a certain type and stage of cancer. Some people want to know the statistics for people in their situation, while others may not find them helpful, or may even not want to know them. If you decide that you don’t want to know them, stop reading here.

When discussing cancer survival statistics, doctors often use a number called the **5-year survival rate**. The 5-year survival rate is the percentage of patients who live *at least* 5 years after their cancer is diagnosed. Of course, many of these patients live much longer than 5 years.

*Relative* survival rates compare the survival of people with the cancer to the survival for similar people without the cancer. Since some people will die of causes other than cancer, this is a better way to see the impact of cancer on survival.

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

Survival rates are typically based on previous outcomes of large numbers of people who had the disease, but they can’t predict what will happen in any man’s case. Many other factors may affect a man’s outlook, such as their age and general health, and how well the cancer responds to treatment. Your doctor knows your situation best and can tell
you how the numbers below might apply to you.

The rates below are based on the stage of the cancer when it is first diagnosed. When looking at survival rates, it’s important to understand that the stage of a cancer does not change over time, even if the cancer progresses. A cancer that comes back or spreads is still referred to by the stage it was given when it was first found and diagnosed, but more information is added to explain the current extent of the cancer. (And of course, the treatment plan is adjusted based on the change in cancer status.)

Because penile cancer is not common, it is hard to find accurate survival rates based on the TNM stage of the cancer. The numbers below come from the National Cancer Institute’s SEER database, looking at more than 1,000 men diagnosed with penile cancer between 1988 and 2001.

- For cancers that are still confined to the penis (like stage I and II cancers), the 5-year relative survival rate is around 85%.
- If the cancer has spread to nearby tissues or lymph nodes (like stage III and some stage IV cancers), the 5-year relative survival rate is around 59%.
- If the cancer has spread to distant parts of the body, the 5-year relative survival rate is about 11%.

References
See all references for Penile Cancer

What Should You Ask Your Doctor 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 questions you might want to ask:

- What kind of penile cancer do I have?
• How deep has the cancer grown into the 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 choices?
• What do you recommend and why?
• 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 I need surgery on my groin lymph nodes?
• 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?
• Will treatment affect my ability to urinate, have sex, or to have children?
• What are the chances that my cancer will come back after treatment? What would we do if that happens?
• What type of follow-up 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 getting a second opinion or about clinical trials for which you may qualify.

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 Relationship.

• References
See all references for Penile Cancer

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