



Penile cancer is a disease in which malignant (cancer) cells form in the tissues of the penis.

The penis is a rod-shaped male reproductive organ that passes sperm and urine from the body. It contains two types of erectile tissue (spongy tissue with blood vessels that fill with blood to make an erection):

Corpora cavernosa: The two columns of erectile tissue that form most of the penis.

Corpus spongiosum: The single column of erectile tissue that forms a small portion of the penis. The corpus spongiosum surrounds the urethra (the tube through which urine and sperm pass from the body).

The erectile tissue is wrapped in connective tissue and covered with skin. The glans (head of the penis) is covered with loose skin called the foreskin.

Human papillomavirus infection may increase the risk of developing penile cancer. Anything that increases your chance of getting a disease is called a risk factor.

Circumcision may help prevent infection with the human papillomavirus (HPV). A circumcision is an operation in which the doctor removes part or the entire foreskin from the penis. Many boys are circumcised shortly after birth. Men who were not circumcised at birth may have a higher risk of developing penile cancer.

Other risk factors for penile cancer include the following:

Age 60 or older.

Having phimosis (a condition in which the foreskin of the penis cannot be pulled back over the glans).

Poor personal hygiene.

Many sexual partners.

Using tobacco products.

Possible signs of penile cancer include sores, discharge, and bleeding.

These and other symptoms may be caused by penile cancer. Other conditions may cause the same symptoms.

A doctor should be consulted if any of the following problems occur:

Redness, irritation, or a sore on the penis.

A lump on the penis.

Tests that examine the penis are used to detect (find) and diagnose penile cancer.

The following tests and procedures may be used:

Physical exam and history: An exam of the body to check general signs of health, including checking the penis for signs of disease, such as lumps or anything else that seems unusual. A history of the patient's health habits and past illnesses and treatments will also be taken.

Biopsy: The removal of cells or tissues so they can be viewed under a microscope by a pathologist to check for signs of cancer.

Certain factors affect prognosis (chance of recovery) and treatment options.

The prognosis (chance of recovery) and treatment options depend on the following:

Stage of the cancer.

Location and size of the tumor.

Whether the cancer has just been diagnosed or has recurred (come back).

After penile cancer has been diagnosed, tests are done to find out if cancer cells have spread within the penis or to other parts of the body.

The process used to find out if cancer has spread within the penis or to other parts of the body is called staging. The information gathered from the staging process determines the stage of the disease. It is important to know the stage in order to plan treatment.

The following tests and procedures may be used in the staging process:

CT scan (CAT scan): A procedure that makes a series of detailed pictures of areas inside the body, taken from different angles. The pictures are made by a computer linked to an x-ray machine. A dye may be injected into a vein or swallowed to help the organs or tissues show up more clearly. This procedure is also called computed tomography, computerized tomography, or computerized axial tomography.

MRI (magnetic resonance imaging): A procedure that uses a magnet, radio waves, and a computer to make a series of detailed pictures of areas inside the body. A substance called gadolinium is injected into a vein. The gadolinium collects around the cancer cells so they show up brighter in the picture. This procedure is also called nuclear magnetic resonance imaging (NMRI).

Ultrasound exam: A procedure in which high-energy sound waves (ultrasound) are bounced off internal tissues or organs and make echoes. The echoes form a picture of body tissues called a sonogram.

The following stages are used for penile cancer:

Stage 0 (Carcinoma in Situ)

In stage 0, abnormal cells are found on the surface of the skin of the penis. These abnormal cells may become cancer and spread into nearby normal tissue. Stage 0 is also called carcinoma in situ.

Stage I

In stage I, cancer has formed and spread to connective tissue just under the skin of the penis.

Stage II

In stage II, cancer has spread to:

connective tissue just under the skin of the penis and to one lymph node in the groin. or erectile tissue (spongy tissue that fills with blood to make an erection) and may have spread to one lymph node in the groin.

Stage III

In stage III, cancer has spread to: connective tissue or erectile tissue of the penis and to more than one lymph node on one or both sides of the groin; or the urethra or prostate, and may have spread to one or more lymph nodes on one or both sides of the groin.

Stage IV

In stage IV, cancer has spread:

to tissues near the penis and may have spread to lymph nodes in the groin or pelvis; or anywhere in or near the penis and to one or more lymph nodes deep in the pelvis or groin; or to distant parts of the body.

Recurrent Penile Cancer

Recurrent penile cancer is cancer that has recurred (come back) after it has been treated. The cancer may come back in the penis or in other parts of the body.

There are different types of treatment for patients with penile cancer.

Different types of treatments are available for patients with penile cancer. Some treatments are standard (the currently used treatment), and some are being tested in clinical trials. Before starting treatment, patients may want to think about taking part in a clinical trial. A treatment clinical trial is a research study meant to help improve current treatments or obtain information on new treatments for patients with cancer. When clinical trials show that a new treatment is better than the standard treatment, the new treatment may become the standard treatment.

Clinical trials are taking place in many parts of the country. Information about ongoing clinical trials is available from the NCI Web site. Choosing the most appropriate cancer treatment is a decision that ideally involves the patient, family, and health care team.

Three types of standard treatment are used:

Surgery

Surgery is the most common treatment for all stages of penile cancer. A doctor may remove the cancer using one of the following operations:

Mohs microsurgery: A procedure in which the tumor is cut from the skin in thin layers. During the surgery, the edges of the tumor and each layer of tumor removed are viewed through a microscope to check for cancer cells. Layers continue to be removed until no more cancer cells are seen. This type of surgery removes as little normal tissue as possible and is often used to remove cancer on the skin. It is also called Mohs surgery.

Laser surgery: A surgical procedure that uses a laser beam (a narrow beam of intense light) as a knife to make bloodless cuts in tissue or to remove a surface lesion such as a tumor.

Cryosurgery: A treatment that uses an instrument to freeze and destroy abnormal tissue. This type of treatment is also called cryotherapy.

Circumcision: Surgery to remove part or all of the foreskin of the penis.

Wide local excision: Surgery to remove only the cancer and some normal tissue around it.

Amputation of the penis: Surgery to remove part or all of the penis. If part of the penis is removed, it is a partial penectomy. If all of the penis is removed, it is a total penectomy.

Lymph nodes in the groin may be taken out during surgery.

Even if the doctor removes all the cancer that can be seen at the time of the surgery, some patients may be given chemotherapy or radiation therapy after surgery to kill any cancer cells that are left. Treatment given after the surgery, to increase the chances of a cure, is called adjuvant therapy.

Radiation therapy

Radiation therapy is a cancer treatment that uses high-energy x-rays or other types of radiation to kill cancer cells or keep them from growing. There are two types of radiation therapy. External radiation therapy uses a machine outside the body to send radiation toward the cancer. Internal radiation therapy uses a radioactive substance sealed in needles, seeds, wires, or catheters that are placed directly into or near the cancer. The way the radiation therapy is given depends on the type and stage of the cancer being treated.

Chemotherapy

Chemotherapy is a cancer treatment that uses drugs to stop the growth of cancer cells, either by killing the cells or by stopping them from dividing. When chemotherapy is taken by mouth or injected into a vein or muscle, the drugs enter the bloodstream and can reach cancer cells throughout the body (systemic chemotherapy). When chemotherapy is placed directly onto the skin (topical chemotherapy) or into the spinal column, an organ, or a body cavity such as the abdomen, the drugs mainly affect cancer cells in those areas (regional chemotherapy). The way the chemotherapy is given depends on the type and stage of the cancer being treated.

Topical chemotherapy may be used to treat stage 0 penile cancer.

New types of treatment are being tested in clinical trials. These include the following:

Biologic therapy

Biologic therapy is a treatment that uses the patient's immune system to fight cancer. Substances made by the body or made in a laboratory are used to boost, direct, or restore the body's natural defenses against cancer. This type of cancer treatment is also called biotherapy or immunotherapy. Topical biologic therapy may be used to treat stage 0 penile cancer.

Radiosensitizers

Radiosensitizers are drugs that make tumor cells more sensitive to radiation therapy. Combining radiation therapy with radiosensitizers helps kill more tumor cells.

Sentinel lymph node biopsy followed by surgery

Sentinel lymph node biopsy is the removal of the sentinel lymph node during surgery. The sentinel lymph node is the first lymph node to receive lymphatic drainage from a tumor. It is the first lymph node the cancer is likely to spread to from the tumor. A radioactive substance and/or blue dye is injected near the tumor. The substance or dye flows through the lymph ducts to the lymph nodes. The first lymph node to receive the substance or dye is removed. A pathologist views the tissue under a microscope to look for cancer cells. If cancer cells are not found, it may not be necessary to remove more lymph nodes. After the sentinel lymph node biopsy, the surgeon removes the cancer.