

Types of Cancer

Bladder Cancer

What is bladder cancer?

Bladder cancer develops when cells of the urinary bladder grow out of control. The most common type of bladder cancer is urothelial carcinoma (also known as transitional cell carcinoma), which starts in the lining of the urinary tract. Urothelial cancer can also originate in the lower part of the kidneys, the ureters (tubes that connect the kidneys to the bladder) or the urethra (tube that excretes urine from the bladder). Rare types of bladder cancer include squamous cell carcinoma, adenocarcinoma, small cell carcinoma and sarcoma. Noninvasive bladder cancer is limited to the inner layer of the bladder while invasive cancer has spread to deeper layers of tissue.

Who gets bladder cancer?

Around 81,000 people will be diagnosed with bladder cancer and about 17,000 people will die from it this year in the United States, according to the American Cancer Society. Bladder cancer is the fourth most common cancer in men, but it is less common in women. Incidence rates for both men and women have declined in recent years.

Men are three to four times more likely to develop bladder cancer than women. Overall, about 1 in 27 men will develop bladder cancer in their lifetimes, with risk increasing with age. About 90% of people who develop bladder cancer are over 55. Whites have a higher risk for this cancer than African Americans or Hispanics.

What are the risk factors for bladder cancer?

Smoking is a leading risk factor for bladder cancer. Smokers are two to six times more likely to develop this malignancy than nonsmokers. Environmental exposures, such as exposure to industrial chemicals, diesel exhaust, petroleum products or arsenic in drinking water, have been linked higher bladder cancer risk. Certain medical conditions are also associated with an increased risk, including a history of urinary tract infections, inflammation (cystitis), kidney or bladder stones, long-term catheter use, certain birth defects and schistosomiasis (a disease caused by a parasitic worm).

What are the symptoms of bladder cancer?

The bladder is a hollow muscular organ that stores urine collected from the kidneys before it is disposed of by urination.

Symptoms of bladder cancer in early stages may include:

- Blood in the urine (hematuria)
- Need to urinate frequently
- An intense feeling of needing to urinate (urinary urgency)
- Difficulty urinating or weak urine stream
- Pain or a burning sensation during urination

Symptoms of bladder cancer in later stages may include:

- Inability to urinate
- Pain in the lower back or rectum
- A lump in the pelvis
- Swelling in the feet, legs, or genitals
- Loss of appetite
- Weight loss
- Fatigue

How is bladder cancer diagnosed?

Early detection and treatment of cancer increases the likelihood of long-term survival. But bladder cancer sometimes takes some time to diagnose because other medical conditions can cause similar symptoms. The process of diagnosis starts with a physical exam and health history. A doctor may do a pelvic exam to feel for lumps or thickening of the bladder wall. A urine sample (urinalysis) may show the presence of blood, unusual bacteria, abnormal cells or biomarkers.

Further evaluation may include cystoscopy, an exam using a type of endoscope (a thin tube with a light and a lens) to look at the inside of the bladder. A biopsy, or small tissue sample, might be removed to examine in the laboratory. Imaging tests, including CT scans, MRI scans, ultrasound or pyelograms (X-rays done after injection of a dye) may be done to get a better look at the bladder and surrounding structures.

How is bladder cancer treated?

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including the size of tumors, whether it is invasive and whether it has spread to nearby lymph nodes or other parts of the body.

Surgery: Many people with bladder cancer are eligible for surgery. The type of surgery and how extensive it is depends on the cancer stage and tumor characteristics. The surgeon may remove tumors (resection) or the whole bladder and nearby lymph nodes (radical cystectomy). In some cases, it is possible to create a “neobladder” using part of the intestine.

Ablation: Some bladder tumors that are not deep in the tissue may be ablated, or destroyed using a laser.

Radiation: Radiation may be used to kill any cancer cells that remain after surgery or to shrink tumors that cannot be surgically removed. It is often used in conjunction with other forms of treatment.

Chemotherapy: Traditional chemotherapy works by killing fast-growing cells, including cancer cells. It can also destroy rapidly dividing healthy cells, such as those in the gut or hair follicles, leading to side effects including nausea and hair loss. For noninvasive cancer, drugs may be administered directly into the bladder via a catheter (intravesical therapy).

Targeted therapy: Targeted drugs work against cancers with specific characteristics. For example, they may interfere with signaling pathways that regulate cell growth.

Antibody-drug conjugates: Targeted monoclonal antibodies that carry toxic chemotherapy directly to tumors.

Immunotherapy: The newest type of treatment helps the immune system fight cancer. Some tumors can turn off immune responses against them, and drugs known as checkpoint inhibitors can restore T cells’ ability to recognize and destroy cancer cells. An older immunotherapy uses BCG bacteria inserted into the bladder to attract immune cells to attack bladder cancer.

[Click here](#) for a list of approved medications used to treat bladder cancer.

For more information on bladder cancer, visit:

[American Cancer Society](#)

[American Society of Clinical Oncology](#)

[National Cancer Institute](#)

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