

# Urinary Bladder Cancer

## Urothelial (Transitional) Cell Carcinoma

### Definition of Terms

**Urinary bladder:**

A sac located in the pelvic area where urine is collected and discharged.

**Urothelial (transitional) cell:** One of the cells lining the bladder.

**Carcinoma:** A type of cancerous, or malignant, tumor.

**Malignant:** Cancerous and capable of spreading.

**Pathologist:** A physician who examines tissues and fluids to diagnose disease in order to assist in making treatment decisions.

**Lymphatic:** Relating to lymph glands or channels.

### What is Urinary Bladder Urothelial (Transitional) Cell Carcinoma?

Urinary Bladder Urothelial Cell Carcinoma starts in the cells lining the bladder and, if not treated successfully at an early stage, can spread to nearby organs or other parts of the body. In industrial countries, this type of cancer accounts for 90 percent of bladder cancers. Early-stage bladder cancer can be treated effectively; however, patients must be monitored carefully after treatment because the chance of bladder cancer returning is high – 70 to 100 percent.

### Who is most likely to have Urinary Bladder Urothelial Cell Carcinoma?

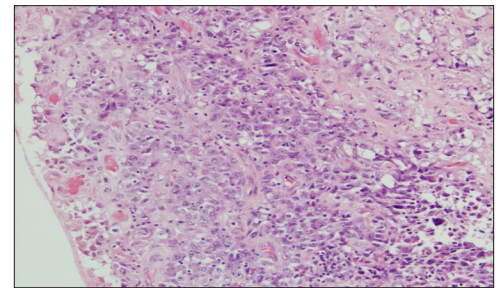
Urinary Bladder Urothelial Cell Carcinoma occurs more often in men. In the United States, about 38,000 men and 15,000 women are diagnosed with this disease each year. It is the fourth most common cancer among men and eighth most common among women. It is also more common among Caucasians.

Chronic urinary or bladder infections and kidney and bladder stones increase the risk of bladder cancer. According to the National Cancer Institute, Urinary Bladder Urothelial Cell Carcinoma occurs most commonly in industrialized countries such as the United States, Canada and France. This situation is due to lifestyle and environmental factors including lifespan, diet, smoking and workplace carcinogens.

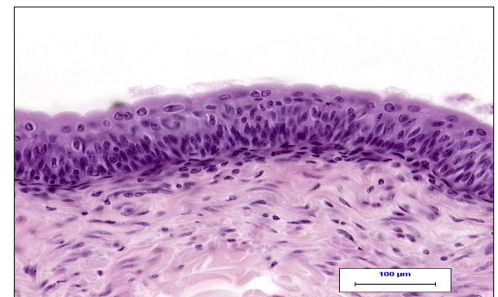
This type of cancer is much more common in people over age 70. Cigarette smoking, diets high in saturated fat, and exposure to workplace carcinogens increases the risk. Workers exposed to anti-neoplastic drugs (used in chemotherapy) or certain types of hair, medical or industrial dyes also can be at increased risk. These workers include hairdressers, machinists, printers, painters, truck drivers, and those in the rubber, chemical, textile, metal and leather industries.

### What characterizes Urinary Bladder Urothelial Cell Carcinoma?

Urinary Bladder Urothelial Cell Carcinoma is characterized by a lump or tumor that is formed in the bladder, and if aggressive, grows outside the bladder. The most common symptom of Urinary Bladder Urothelial Cell Carcinoma is blood in the urine. While this symptom is not specific for cancer, you should always see your doctor if you find blood in your urine. Other symptoms include frequent, urgent or painful urination, but these are also not specific for cancer.



**A lump or tumor inside the bladder characterizes Urinary Bladder Urothelial Cell Carcinoma (above).**



**Normal bladder cells (above).**



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### What kinds of questions should I ask my doctors?

Ask any question you want. There are no questions you should be reluctant to ask. Here are a few to consider:

- Please describe the type of cancer I have and what treatment options are available.
- What stage is the cancer in?
- What are the chances for full remission?
- What treatment options do you recommend? Why do you believe these are the best treatments?
- What are the pros and cons of these treatment options?
- What are the side effects?
- Should I receive a second opinion?
- Is your medical team experienced in treating the type of cancer I have?

### How does the pathologist make a diagnosis?

The pathologist can make the diagnosis by examining urine or tissue samples sent by your primary care physician. By looking at cells in the urine under the microscope and performing other tests on the urine, pathologists can tell if cancer cells are present or not. If your primary care physician removes tissue from the bladder by performing a **cystoscopy**, which involves putting a small tube (with a small camera) into your bladder, the pathologist will examine **biopsy specimens** obtained during this procedure. Larger pieces of the tumor can be removed and sent to the pathologist when **transurethral resection of the bladder tumor (TURBT)** is done. Finally, a part of or the entire bladder may be sent to the pathologist if your surgeon performs a **partial** or **radical** (complete) **cystectomy**.

### What else does the pathologist look for?

After making a diagnosis of cancer, one of the important things a pathologist will do is determine the **stage**, or extent of the cancer in the tissue. This finding will help determine prognosis and selection of therapy. The stage usually ranges from 1 (better) to 4 (worst). The pathologist will examine the tissue to see if the cancer has involved the muscle wall of the bladder or its lymphatic or blood vessels, and if it has spread outside the bladder. If a cystectomy has been done, the pathologist will also note the size of the cancer and whether the cancer is growing to the edges (margins) of the tissue. These are helpful findings, along with stage, in determining whether additional treatment is needed.

### How do doctors determine what surgery or treatment will be necessary?

The treatment plan is determined by the pathologist's diagnosis and stage determination, clinical tests such as radiology or x-ray studies, and the insight of physicians participating in your care. In addition to the pathologist, these physicians may include internists, surgeons, radiation oncologists, medical oncologists, radiologists and others.

### What kinds of treatments are available for Urinary Bladder Urothelial Cell Carcinoma?

Urinary Bladder Urothelial Cell Carcinoma is treated through one or more of the following: surgery, radiation therapy, immunotherapy and chemotherapy. It's important to learn as much as you can about your treatment options and to make the decision that's right for you.

The most common treatment for Urinary Bladder Urothelial Cell Carcinoma is **surgery**, which can remove the cancerous tumor from the body. Surgery is generally recommended for individuals in the first three stages of cancer, sometimes in combination with other treatments. For small tumors, a **transurethral resection or partial/segmental cystectomy** is performed to remove the tumor from the bladder. If the tumor is large, a radical cystectomy may be recommended. In these cases, surgeons will form a **continent urinary reservoir**, a **neobladder** or an **ileal conduit** to take the place of the bladder. Depending on the method used, an external urine-collecting bag may or may not be necessary.

**Radiation therapy** – pinpointed high-energy beams – can be used after surgery to destroy cancer cells that remain. This treatment is also used to relieve the symptoms of advanced bladder cancer

Physicians use **immunotherapy therapy** in cases of small, superficial tumors. This treatment enhances the immune system's ability to fight the cancer.

If your cancer has spread beyond your bladder – or if there is a chance that it has – **chemotherapy** will likely be recommended. This treatment delivers drugs throughout the body, slows the cancer's progression and reduces pain

**Clinical trials** of new treatments for Urinary Bladder Urothelial Cell Carcinoma may be found at [www.cancer.gov/clinicaltrials](http://www.cancer.gov/clinicaltrials). These treatments are highly experimental in nature but may be a potential option for advanced cancers.

**For more information**, go to [www.cancer.gov](http://www.cancer.gov) (National Cancer Institute) or [www.cancer.org](http://www.cancer.org) (American Cancer Society). Type **urinary bladder trans cell carcinoma** or **bladder cancer** into the search box.