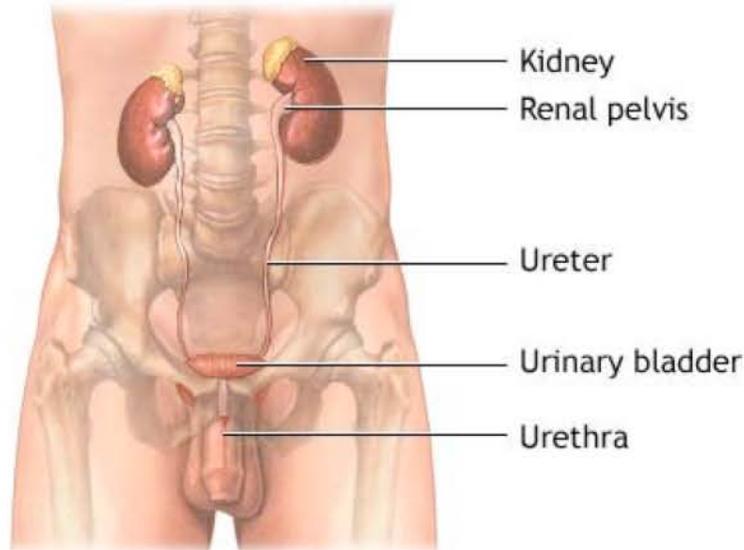


Male urinary tract



ADAM.

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Cigarette smoking has been shown to increase the risk of developing bladder cancer by a factor of nearly five, compared to non-smokers.

Studies show that one in four cases of bladder cancer can be attributed to occupational exposure to known carcinogens. Arylamines are a group of chemicals which are responsible for most occupational exposures. Dye workers, rubber workers, aluminum workers, leather workers, truck drivers, and pesticide applicators are at the highest risk; however, the presence of arylamines has been reduced or eliminated in many settings. The association between artificial sweeteners and bladder cancer has been studied and is weak or non-existent.

Women who received [radiation therapy](#) for the treatment of [cervical cancer](#) have an increased risk of developing transitional cell bladder cancer, as do some people who received the [chemotherapy](#) drug, cyclophosphamide (Cytosan).

[Chronic](#) (long term) [bladder infection](#) or irritation may lead to the development of squamous cell bladder cancer, however, this [cancer](#) is very slow growing. Bladder infections do not predispose to transitional cell cancers.

In third world countries, infection with a parasite (schistosomiasis) has been linked to the development of bladder cancer.

Symptoms [Return to top](#)

Please note that while most of the symptoms listed below can be associated with bladder cancer, they can also be associated with non-cancerous conditions. Nevertheless, medical evaluation is imperative.

- [Hematuria \(blood in the urine\)](#)
- [Urinary frequency](#)
- [Painful urination](#)
- [Urinary urgency](#)

Additional symptoms that may be associated with this disease:

- [Urinary incontinence](#)
- [Bone pain or tenderness](#)
- [Abdominal pain](#)
- [Anemia](#)
- [Weight loss](#)
- [Lethargy \(tiredness\)](#)

Signs and tests [Return to top](#)

[Physical examination](#) will be performed, including a rectal and pelvic exam.

Diagnostic tests that may be performed include:

- [Urinalysis](#)
- [Urine cytology](#) (microscopic exam of urine to look for cancerous cells)
- [Cystoscopy](#) (use of lighted instrument to view inside of bladder)
- [Bladder biopsy](#) (usually performed during cystoscopy)
- [Intravenous pyelogram - IVP](#) (to evaluate upper urinary tract for tumors or blockage)

Treatment [Return to top](#)

The choice of an appropriate treatment is based on the stage of the [tumor](#), the severity of the symptoms, and the presence of other medical conditions. Generally, superficial tumors (stages 0 and I) are treated by removing the lesion (without removal of the rest of the bladder) and by sometimes administering local (directly into the bladder) [chemotherapy](#). However, because the risk of recurrence is so high (70 -100%), people with bladder cancer require constant follow-up for the rest of their lives.

SURGERY:

- **TRANSURETHRAL RESECTION OF THE BLADDER (TURB):**

People with stage 0 or I bladder cancer are usually treated with transurethral resection of the bladder (TURB). This procedure is performed under general or spinal anesthesia. A cutting instrument is then inserted through the urethra to remove the bladder tumor.

- **BLADDER REMOVAL:**

Most people with stage II or III bladder cancer will opt for bladder removal (radical cystectomy). Partial bladder removal may be performed if there is only a single lesion with no signs of

metastasis. However, only about 10% of the people with bladder cancer meet this criterion.

Radical cystectomy in men usually involves removal of the bladder, prostate, and seminal vesicles. In women, the urethra, uterus, and the anterior (front) vaginal wall are removed along with the bladder. Often, the pelvic lymph nodes are also removed during the surgery for pathological examination. About half of the people treated with radical cystectomy will be completely cured; the other half shows signs of metastasis at the time of the surgery.

A urinary diversion surgery (a surgical procedure to create an alternate method for urine storage) is usually performed with the radical cystectomy procedure. Two common types of urinary diversion are an ileal conduit and a continent urinary reservoir.