

# Bladder Cancer

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Bladder cancer is the fifth most common form of cancer in the United States with more than 70,000 new cases and 14,000 deaths each year. It also has the highest rate or recurrence of any cancer with a nearly 80% recurrence rate. Most people know about the dangers of smoking with regard to lung cancer and heart disease but few know that smoking is the greatest risk factor for developing cancer of the urinary bladder. Smokers have at least double the risk of non-smokers for developing bladder cancer but the risk can be reduced if you stop smoking. Other risk factors include family history, prior radiation or exposure to harmful toxins in the workplace. Certain occupations are at risk like hairdressers, machinists, metal workers, painters, textile workers and firefighters. Those who work in the rubber, chemical and leather industries are also at higher risk of developing bladder cancer.

How do you know if you have bladder cancer? Most often, people with bladder cancer have painless blood in their urine, also known as hematuria. Occasionally, bladder cancer can cause other symptoms such as urinating more frequently or urgently. Sometimes there is enough blood in the urine that it turns pink or red. However, other times there is not enough blood to see with your eyes but it can be detected with a microscope or dipstick test in the lab. Either way, blood in the urine can be the earliest or only sign of bladder cancer. Hematuria can be due to many other causes, many of them benign, like urinary infection, kidney stones or kidney diseases. Blood in the urine should always be reported to your doctor so it can be determined whether additional testing is necessary. Sometimes doctors mistake the symptoms of bladder cancer for a urinary infection. If your doctor treats you for an infection and the blood in the urine does not go away, you should request further evaluation.

The next step in evaluating hematuria is usually a referral to a urologist- a doctor who specializes in diseases of the urinary tract. Typically, he or she will take a history and do an examination and then determine if more testing is needed. If so, then Xrays of the urinary tract are done, such as a CT scan, and then a procedure known as cystoscopy in which a scope is

passed into the bladder. The Xrays can rule out some problems like kidney stones and kidney tumors but are not reliable enough to rule out bladder cancer. That is why cystoscopy is done. Usually, it is done in the urologist's office under local anesthesia only. If a bladder tumor is found, then the patient is taken to the operating room to have the tumor removed under full anesthesia. This procedure can be done through a scope as well.

Further treatment of bladder cancer, if any, is determined by the depth of invasion into the wall of the bladder (stage) and the level of aggressiveness of the tumor (grade). Fortunately, most cases of bladder cancer are superficial when diagnosed, meaning that the tumor has not invaded the bladder wall deeply. If patients have higher grade tumors though, additional treatments with medicine inside the bladder are often needed. These treatments are given usually once per week for six weeks in the office. If the cancer is invasive, usually the entire bladder has to be removed and the urinary tract reconstructed with either a "new" bladder made of bowel or else a conduit with a stoma where patients wear a bag to hold the urine.

For patients with superficial bladder cancer, there is typically a long period of surveillance because bladder tumors have a strong tendency to come back, like weeds in a garden. Surveillance is done by having routine cystoscopy and exams by the urologist. Often the urologist will check urine cytologies to look for abnormal cells shed from the lining of the bladder. Periodically, Xrays may be done to check the tracts between the kidneys and the bladder because they can develop the same kind of cancer that arises from the lining of bladder called urothelial cancer. Some urologists believe patients should have lifelong surveillance. If a recurrent tumor is detected early, it can usually be removed before it becomes invasive.

Although bladder cancer is common and usually treatable, it is one cancer that can also be prevented in some cases by not smoking. If you are a smoker and were looking for yet another reason to quit, here it is. If you have seen blood in the urine, even if it went away, you should notify your doctor to determine if further evaluation is necessary.