

# Bladder Cancer

## *What is the bladder?*

The bladder is a hollow organ in the lower abdomen that stores urine. The kidneys filter water from the blood and produce urine that enters the bladder through the ureters. Urine leaves the bladder through the urethra.

## *What is bladder cancer?*

Most bladder cancers develop in the inside lining of the bladder and often looks like a small mushroom that is attached to the bladder wall. It may also be called a papillary tumor and often, more than one tumor is present.

## *What are the risk factors?*

Smoking is the greatest risk factor for bladder cancer, estimated to cause 48 percent of bladder cancer deaths in men and 28 percent in women. Smokers develop bladder cancer about two times more often than nonsmokers. People who work in leather, rubber or dye industries may have an increased risk of bladder cancer as do people who live in communities with high levels of arsenic in their drinking water.

## *What are the signs and symptoms?*

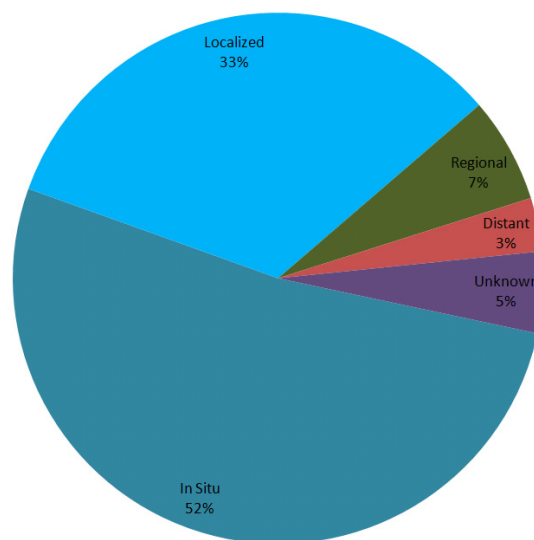
Some of the common symptoms include blood in the urine, pain during urination, frequent urination or feeling the need to urinate.

## *How is it diagnosed?*

A medical checkup, urine test, intravenous pyelogram and cystoscopy will help diagnose bladder cancer.

## *Diagnosis*

In the 2003-2007 time period, 52 percent of the bladder cancers were diagnosed at the in situ stage, 33 percent at the localized stage, 7 percent at regional stage, 3 percent at distant stage and 5 percent were of unknown stage of progression.



## *What are the common treatments?*

Treatment options include: surgery, radiation therapy, chemotherapy and biological therapy. The stage of the cancer will determine the treatment given.

## *What are the survival outcomes?*

Using 1999-2007 SEER data, the national 5-year relative survival rate estimate is 78 percent. When diagnosed at localized stage, the 5-year relative survival rate is 71 percent. For regional and distant stages, the 5-year relative survival rates are 35 percent and 6 percent respectively. The survival rate when the stage of diagnosis could not be determined was estimated at 51 percent.

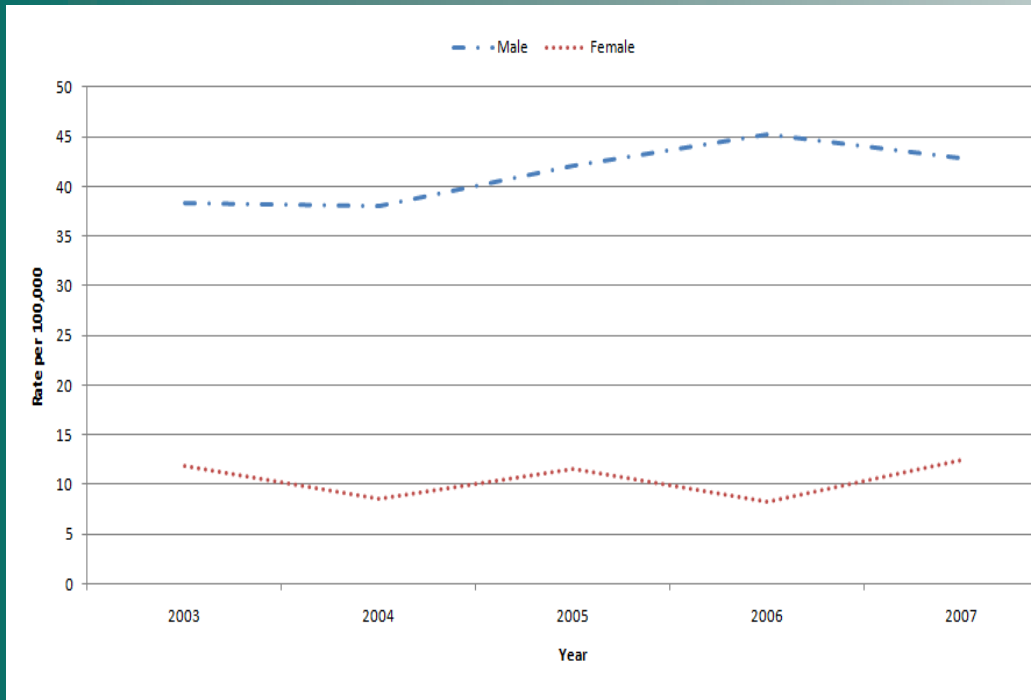
## *What can you tell me about this cancer in North Dakota?*

Summary Statistics 2003-2007	ND	WNC	US
INCIDENCE			
Annual age-adjusted incidence rates*	23.5	21.5	21.3
Average number of new cases	174	4,571	65,028
Percent of all new cancers	5.2	4.6	4.5
MORTALITY			
Annual age-adjusted mortality rates*	4.4	4.1	4.3
Average number of deaths each year	35	912	13,217
Percent of all cancer deaths	2.69	2.31	2.37
* Rates per 100,000 and standardized to U.S. year 2000 population.	<b>WNC and US data source:</b> <a href="http://apps.nccd.cdc.gov/uscs">http://apps.nccd.cdc.gov/uscs</a>		

☞ The West North Central (WNC) regions include the following states: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.

## INCIDENCE:

### *Incidence Rates by Gender, North Dakota 2003-2007*

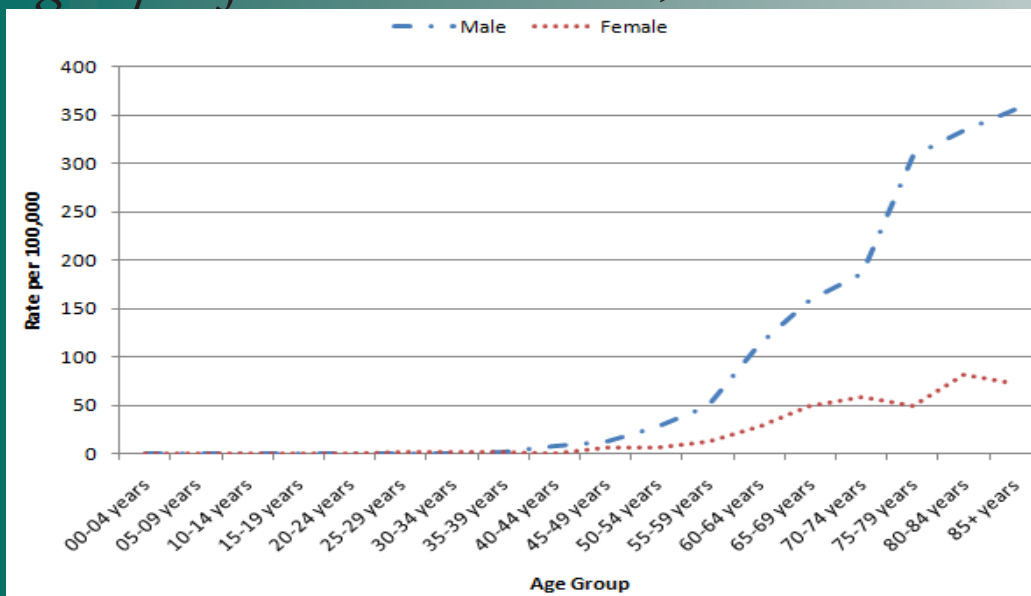


☞ An average of 174 new cases of bladder cancer are diagnosed each year in North Dakota, which is about 5 percent of all cancers diagnosed in the state.

☞ The incidence of bladder cancer is higher among men than women.

☞ The average annual incidence rate for men is 41.3 per 100,000 men, and the average annual incidence rate for women is 10.5 per 100,000 women.

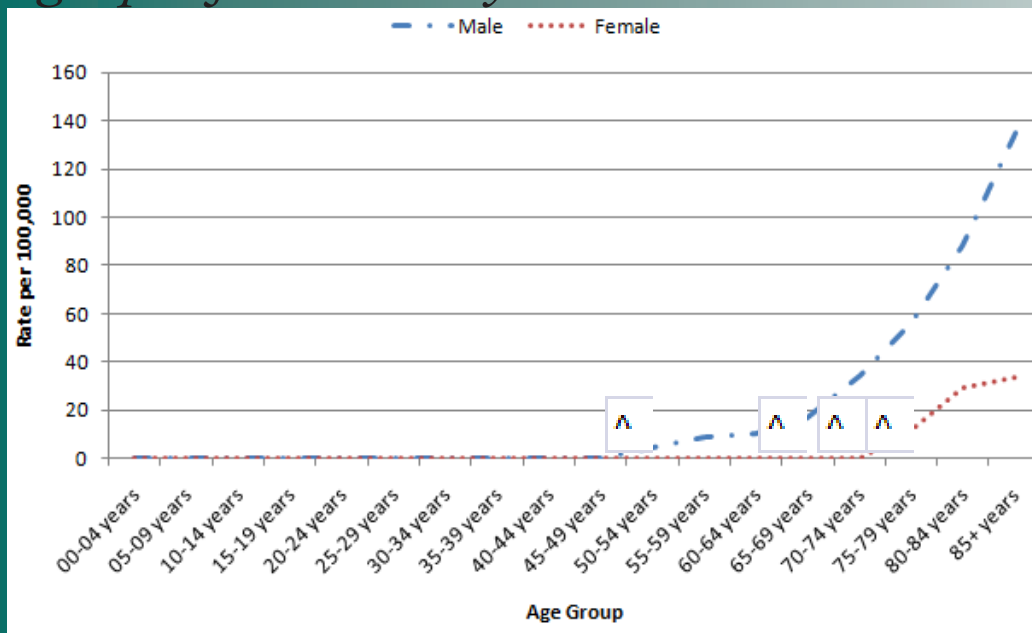
### *Age-Specific Incidence Rates, North Dakota 2003-2007*



☞ Since the incidence is higher among men than women, the age-specific rates for men are higher.

☞ The annual incidence rate increases with age.

## Age-specific Mortality Rates, North Dakota 2003-2007



☞ An average of 35 deaths due to bladder cancer occur each year in North Dakota, which is about 3 percent of all cancer deaths in the state.

☞ The average annual death rate for men is 7.9 per 100,000 men, and for women it is 1.8 per 100,000 women.

☞ Death rate increases with age.

^ Statistic not displayed due to fewer than five cases.

## Glossary of Cancer Terminology

- ☞ **Age-adjusted rate:** Since cancer rates tend to vary with age, and since populations vary with respect to their age-distribution, incidence and mortality rates are age-adjusted to allow comparison of rates between different populations (i.e. county or regional boundaries).
- ☞ **Age-specific rate:** The number of new cases diagnosed per 100,000 individuals over a specified time period for a specified age-group.
- ☞ **Incidence:** The number of new cases of a given type of cancer diagnosed during the year.
- ☞ **Mortality:** The number of deaths attributed to the particular type of cancer that occurred during the year. Includes deaths of patients diagnosed in earlier years, individuals newly diagnosed during the year, and patients for whom a diagnosis of cancer is made only after death.
- ☞ **Risk factor:** Anything that increases a person's chance of getting a disease.
- ☞ **Stage at diagnosis:** How far a cancer has spread from its site of origin when it is diagnosed. There are several different systems for the staging of cancers. This report uses the general summary stage system. The stages, in order of increasing spread, are in situ, localized, regional and distant. Cancers diagnosed at the localized, regional or distant stage are referred to as invasive.



For more information, visit  
[www.ndhealth.gov/cancerregistry/](http://www.ndhealth.gov/cancerregistry/)  
 or call 701.328.2306

