

Kidney Cancer

What are the kidneys?

The kidneys are two bean-shaped organs located behind the abdomen on each side of the spine. The main job of the kidneys is to filter the blood and rid the body of liquid waste through the bladder. They also control the production of red blood cells and regulate blood pressure.

What is kidney cancer?

In adults, the most common type of kidney cancer is renal cell carcinoma which begins in the cells that line the small tubes (tubules) within the kidneys. It accounts for more than 90 percent of cancerous kidney tumors. Children are more likely to develop a kind of kidney cancer called Wilms' tumor.

What are the risk factors?

Cigarette smoking increases the risk of developing renal cell carcinoma by about 40 percent. The risk decreases after smoking stops. Other risks include obesity, sedentary life style, occupational exposure, family history of renal cell cancer, high blood pressure, age, and gender.

What are the signs and symptoms?

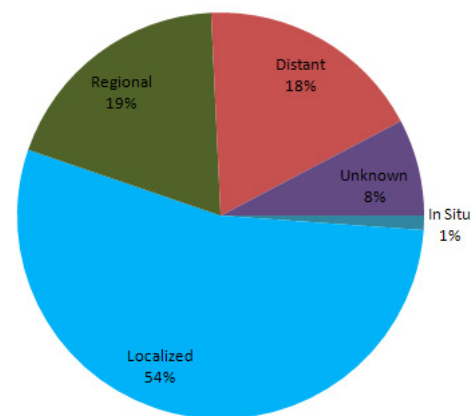
Kidney cancer seldom causes problems in its early stages. As the tumor grows, some of the common symptoms include blood in the urine, pain during urination, frequent urination or feeling the need to urinate. Other possible symptoms include back pain, weight loss, fatigue and intermittent fever. Wilms' tumor usually has no symptoms and is often discovered on examination.

How is it diagnosed?

A medical checkup, urine test, intravenous pyelogram, CAT scan, ultrasound or MRI will help diagnosis kidney cancer.

Diagnosis

In the 2003-2007 time period, 1 percent of the kidney cancers were diagnosed at the in situ stage, 54 percent were diagnosed at the localized stage, 19 percent at regional stage, 18 percent at distant stage and 8 percent were of unknown stage of progression.



What are the common treatments?

Treatment options include: surgery, radiation therapy, chemotherapy, immunotherapy, hormone therapy and pain control.

What are the survival outcomes?

Using 1999-2007 SEER data, the national 5-year relative survival rate estimate is 69 percent. When diagnosed at localized stage, the 5-year relative survival rate is 90 percent. For regional and distant stages, the 5-year relative survival rates are 63 percent and 11 percent respectively. The survival rate when the stage of diagnosis could not be determined was estimated at 36 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*	14.9	15.6	14.9
Average number of new cases	105	3,268	45,239
Percent of all new cancers	3.12	2.51	2.23
MORTALITY			
Annual age-adjusted mortality rates*	5.1	4.6	4.1
Average number of deaths each year	39	993	12,440
Percent of all cancer deaths	2.95	2.51	2.23
* Rates per 100,000 and standardized to U.S. year 2000 population.	WNC and US data source: http://apps.nccd.cdc.gov/uscs		

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

INCIDENCE:

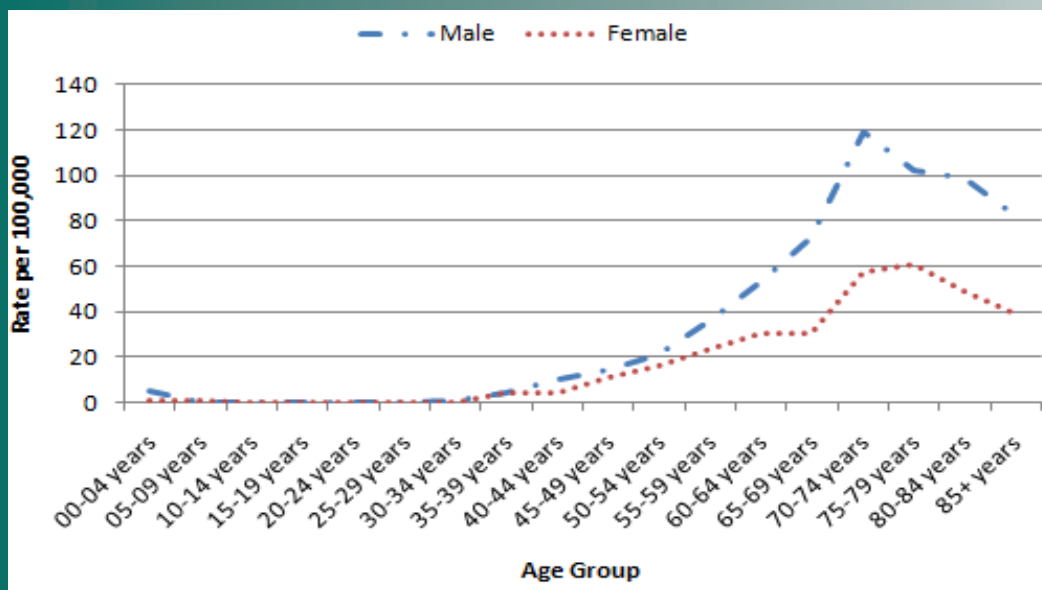
Incidence Rates by Gender, North Dakota 2003-2007



☞ An average of 105 new cases of kidney cancer are diagnosed each year in North Dakota, which is about 3 percent of all cancers diagnosed in the state.

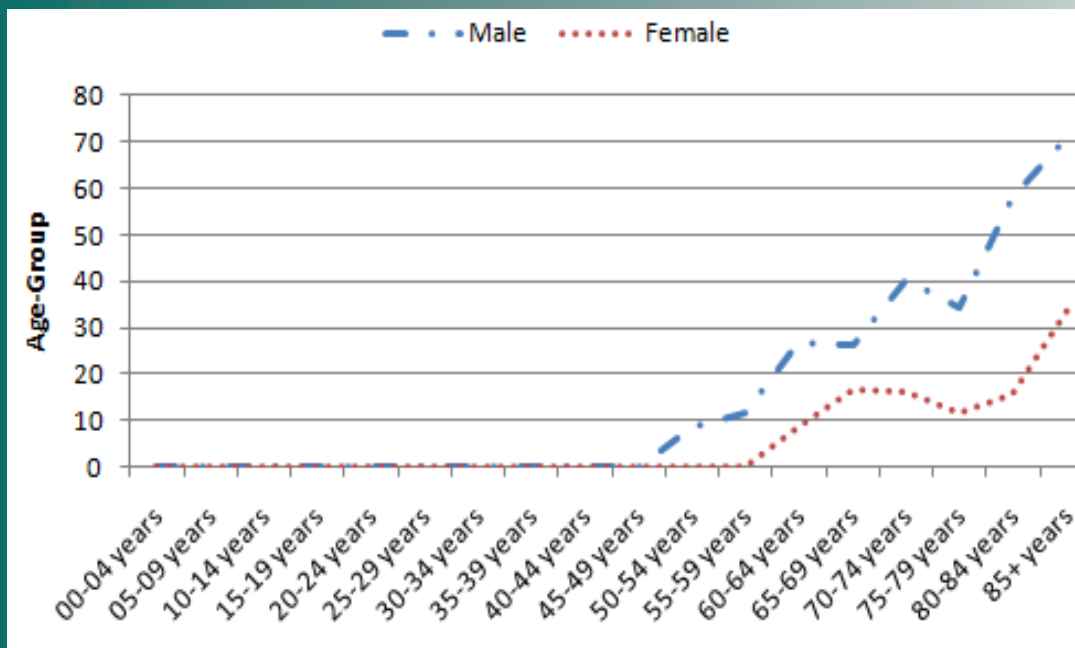
☞ The average annual incidence rate for men is 19.9 per 100,000 men, and the average annual incidence rate for women is 11 per 100,000 women.

Age-Specific Incidence Rates, North Dakota 2003-2007



☞ The annual incidence rate increases with age.

Age-Specific Mortality Rates, North Dakota 2003-2007



☞ An average of 39 deaths due to kidney 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 7.5 per 100,000 men, and for women it is 3.3 per 100,000 women.

☞ Death rate increases with age.

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/
 or call 701.328.2306

