About Bladder Cancer

Get an overview of bladder cancer and the latest key statistics in the US.

Overview and Types

If you've been diagnosed with bladder cancer or are worried about it, you likely have a lot of questions. Learning some basics is a good place to start..

- What Is Bladder Cancer?

Research and Statistics

See the latest estimates for new cases of and deaths linked to bladder cancer in the US and what research is currently being done.

- Key Statistics for Bladder Cancer
- What's New in Bladder Cancer Research?

What Is Bladder Cancer?

Bladder cancer starts when cells in the urinary bladder start to grow out of control. As more cancer cells develop, they can form a tumor and, with time, might spread to other parts of the body.

- The bladder

- Types of bladder cancer
- Start and spread of bladder cancer

The bladder

The bladder is a hollow organ in the lower pelvis. Its main job is to store urine. Urine is liquid waste made by the kidneys and then carried to the bladder through tubes called **ureters**. The wall of the bladder is made up of several layers (see image). When you urinate, the muscles in the wall of the bladder contract, and urine is forced out of the bladder through a tube called the **urethra**.

What Is Cancer? [1]

Cancer starts when cells in the body begin to grow out of control. Cells in nearly any part of the body can become cancer cells. Learn more here.

Anatomy Gallery: Female Genitourinary System [2]

In the US, only about 3% to 5% of bladder cancers are squamous cell carcinomas (SCCs). Seen with a microscope, the cells look much like the flat cells that are found on the surface of the skin.

Adenocarcinoma

Only about 1% to 2% of bladder cancers are adenocarcinomas. These cancers start in gland-forming cells.

Small cell carcinoma

Less than 1% of bladder cancers are small cell carcinomas. These cancers start in nerve-like cells called neuroendocrine cells. These cancers often grow quickly and usually need to be treated with chemotherapy like that used for small cell lung cancer.[4]

Sarcoma

Sarcomas are cancers that start in connective tissues in the body. In the bladder, sarcomas can start in the muscle cells of the bladder, although these cancers are very rare. More information on sarcomas can be found in Soft Tissue Sarcoma[5] and Rhabdomyosarcoma.[6]

Start and spread of bladder cancer

The wall of the bladder has several layers. Each layer is made up of different kinds of cells (see the image above).

Most bladder cancers start in the innermost lining of the bladder, which is called the **urothelium** or **transitional epithelium**. As the cancer grows, it can invade into or through the deeper layers of the bladder wall. As the cancer becomes more advanced, it can be harder to treat.

Over time, the cancer might grow outside the bladder and into nearby structures. It might spread to nearby lymph nodes, or to other parts of the body. When bladder cancer spreads, it tends to go to the lymph nodes, the bones, the lungs, or the liver.

Muscle invasive vs. non-muscle invasive bladder cancer

Bladder cancers are often grouped for treatment purposes based on if they have invaded into the main muscle layer of the bladder wall (see the image above):

Non-muscle invasive bladder cancer (NMIBC)

Hyperlinks

1. www.cancer.org/cancer/understanding-cancer/what-is-cancer.html
2. www.cancer.org/cancer/understanding-cancer/anatomy-gallery/female-genitourinary-system.html
3. www.cancer.org/cancer/understanding-cancer/anatomy-gallery/male-genitourinary-system.html
4. www.cancer.org/cancer/types/lung-cancer.html
5. www.cancer.org/cancer/types/soft-tissue-sarcoma.html
6. www.cancer.org/cancer/types/rhabdomyosarcoma.html

References

Lerner SP. Non-urothelial bladder cancer. UpToDate. 2023. Accessed at https://www.uptodate.com/contents/non-urothelial-bladder-cancer on October 4, 2023.

Magi-Galluzzi C, Zhou M. Pathology of bladder neoplasms. UpToDate. 2023. Accessed at https://www.uptodate.com/contents/pathology-of-bladder-neoplasms on October 4, 2023.

National Cancer Institute. Bladder Cancer Treatment (PDQ®)–Health Professional Version. 2023. Accessed at https://www.cancer.gov/types/bladder/hp/bladder-treatment-pdq on October 4, 2023.

Smith AB, Balar AV, Milowsky MI, Chen RC. Chapter 80: Carcinoma of the Bladder. In: Niederhuber JE, Armitage JO, Doroshow JH, Kastan MB, Tepper JE, eds. *Abeloff's Clinical Oncology*. 6th ed. Philadelphia, Pa: Elsevier; 2020.

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Key Statistics for Bladder Cancer

The information below is an overview of the latest statistics for bladder cancer in the

United States in 2025.

How common is bladder cancer?

Bladder cancer is more common in men than women. The American Cancer Society's estimates for bladder cancer in the United States for 2025 are:

- About 84,870 new cases of bladder cancer (about 65,080 in men and 19,790 in women)
- About 17,420 deaths from bladder cancer (about 12,640 in men and 4,780 in women)

Risk for bladder cancer

Smoking is the highest risk factor for bladder cancer. Other risk factors[1]include exposure to chemicals in certain occupations such as painters, metal workers, leather workers, miners, manufacturers of plastics, and firefighters. People who are born with a bladder defect or people who have had to use a urinary catheter for a long time are also at higher risk for bladder cancer.

Trends in bladder cancer incidence

In recent years, incidence rates have decreased by 1% per year in both men and women. This is likely due to a decline in smoking in both men and women, especially in developed countries.

Trends in bladder cancer deaths

Bladder cancer is the 10th leading cause of cancer death in the United States. The chance that any woman will die from bladder cancer cancer is about 1 in 333 (about 0.3%). The chance that any man will die from bladder cancer is about 1 in 125 (about 0.8%).

Bladder cancer death rates have been stable for decades, and recently decreased by 1% per year since 2013. The decrease in death rates is believed to be the result of finding bladder cancer earlier through increased awareness and better treatments.

To learn about survival statistics, see Survival Rates for Bladder Cancer[2].

Visit the American Cancer Society's Cancer Statistics Center[3] for more key statistics.

Hyperlinks

1. www.cancer.org/cancer/types/bladder-cancer/causes-risks-prevention/risk-factors.html
2. www.cancer.org/cancer/types/bladder-cancer/detection-diagnosis-staging/survival-rates.html
3. cancerstatisticscenter.cancer.org/

References

American Cancer Society. *Cancer Facts & Figures 2025*. Atlanta: American Cancer Society; 2025.

NCI: Surveillance, Epidemiology, and End Results Program: Cancer Stat Facts, Bladder Cancer. Last updated 2024. Accessed on Jan 22, 2025. Available from: https://seer.cancer.gov/statfacts/html/urinb.html/.

SEER*Explorer: An interactive website for SEER cancer statistics. Surveillance Research Program, National Cancer Institute; Apr 17 2024. Accessed on Jan 22, 2025. Available from: https://seer.cancer.gov/statistics-network/explorer/.

Last Revised: January 22, 2025

What's New in Bladder Cancer Research?

Research on bladder cancer is being done in many university hospitals, medical centers, and other institutions around the world. Each year, scientists find out more about what causes bladder cancer, how to find it as soon as possible, and how to better treat it.

Understanding genetic changes in bladder cancer

Found Early?[3])

Bladder cancer treatment

Many advances in bladder cancer treatment have been made in recent years, and many newer types of treatment are now being studied. Here are some examples.

Intravesical therapy

For non-muscle invasive bladder cancer, researchers are looking at many new medicines to see if putting them directly into the bladder after surgery can help lower the risk of the cancer coming back. The hope is to find some that are better and/or safer than currently used drugs. New drugs are also needed to treat bladder cancer that doesn't respond to intravesical BCG therapy.

Current studies are also looking at different ways to apply these treatments.

For example, studies are looking at:

- Heating intravesical chemotherapy before it's put into the bladder (known as **hyperthermic intravesical therapy**)
- Delivering the chemo drug mitomycin into the bladder along with a pulsed electrical current, a treatment called **electromotive mitomycin therapy**
- Using combinations of chemo drugs to see if there's a better response
- Adding a gel to the drugs to keep the drugs in contact with the cancer cells for a longer time

See Intravesical Therapy for Bladder Cancer[4] for more on how drugs are put right into the bladder to treat this cancer.

Photodynamic therapy

Some researchers are studying if photodynamic therapy (PDT) might be useful in treating early-stage bladder cancers. In PDT, a light-sensitive drug is injected into the blood. It collects in the cancer cells over a few days. Then a special type of laser light is focused on the inner lining of the bladder through a cystoscope. The light changes the drug in the cancer cells into a new chemical that can kill them.

An advantage of PDT is that it can kill cancer cells with very little harm to nearby normal cells. One drawback is that the chemical must be activated by light, so only cancers

In recent years, some newer types of medicines have become an important part of the treatment for bladder cancer.

Immunotherapy drugs known as **checkpoint inhibitors** are now an important part of the treatment for many bladder cancers, either alone or combined with chemo or other drugs. Many newer types of immunotherapy are now being studied as well.

Antibody-drug conjugates (ADCs) are a newer type of medicine. They combine a chemo drug with an antibody that helps bring the chemo to the cancer cells, sparing normal cells. ADCs are now part of the treatment for many bladder cancers, and many newer ADCs are now being developed.

Many targeted therapy drugs[11] are now being studied for use in bladder cancer. These medicines target specific parts of cancer cells that make them different from normal cells. Targeted therapy drugs work differently from standard chemo drugs. They may work in some cases when chemo drugs don't, and they tend to have different side effects. As researchers are learning more about the changes in bladder cancer cells, these types of medicines are likely to become more important in treating bladder cancer.

While it's unlikely that any single type of treatment will cure all bladder cancers, researchers are always looking at combining different types of treatment to see if this might be more effective. This might include some newer types of medicines (such as immunotherapy or targeted therapy), as well as treatments that have been used for many years, including surgery, radiation therapy, and chemotherapy.

Hyperlinks

1. www.cancer.org/cancer/types/bladder-cancer/detection-diagnosis-staging/how-diagnosed.html
2. www.cancer.org/cancer/types/bladder-cancer/detection-diagnosis-staging/how-diagnosed.html
3. www.cancer.org/cancer/types/bladder-cancer/detection-diagnosis-staging/detection.html
4. www.cancer.org/cancer/types/bladder-cancer/treating/intravesical-therapy.html
5. www.cancer.org/cancer/managing-cancer/treatment-types/radiation/photodynamic-therapy.html
6. www.cancer.org/cancer/types/bladder-cancer/treating/surgery.html

7. www.cancer.org/cancer/types/bladder-cancer/treating/surgery.html
8. www.cancer.org/cancer/types/bladder-cancer/treating/chemotherapy.html
9. www.cancer.org/cancer/types/bladder-cancer/treating/radiation.html
10. www.cancer.org/cancer/types/bladder-cancer/treating/immunotherapy-for-bladder-cancer.html
11. www.cancer.org/cancer/types/bladder-cancer/treating/targeted-therapy.html

References

Black P, Kassouf W. Management of recurrent or persistent non-muscle invasive bladder cancer. UpToDate. 2023. Accessed at https://www.uptodate.com/contents/management-of-recurrent-or-persistent-non-muscle-invasive-bladder-cancer on November 16, 2023.

Crabb SJ, Douglas J. The latest treatment options for bladder cancer. *Br Med Bull*. 2018 Oct 29.

El-Achkar A, Souhami L, Kassouf W. Bladder preservation therapy: Review of literature and future directions of trimodal therapy. *Curr Urol Rep*. 2018;19(12):108.

National Cancer Institute. Advances in Bladder Cancer Research. 2023. Accessed at https://www.cancer.gov/types/bladder/research on November 16, 2023.

National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology: Bladder Cancer. Version 3.2023. Accessed at https://www.nccn.org/professionals/physician_gls/pdf/bladder.pdf on November 16, 2023.

Werntz RP, Adamic B, Steinberg GD. Emerging therapies in the management of high-risk non-muscle invasive bladder cancer (HRNMIBC). *World J Urol*. 2018 Dec 4.

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Written by

The American Cancer Society medical and editorial content team

(https://www.cancer.org/cancer/acs-medical-content-and-news-staff.html)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as editors and translators with extensive experience in medical writing.

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