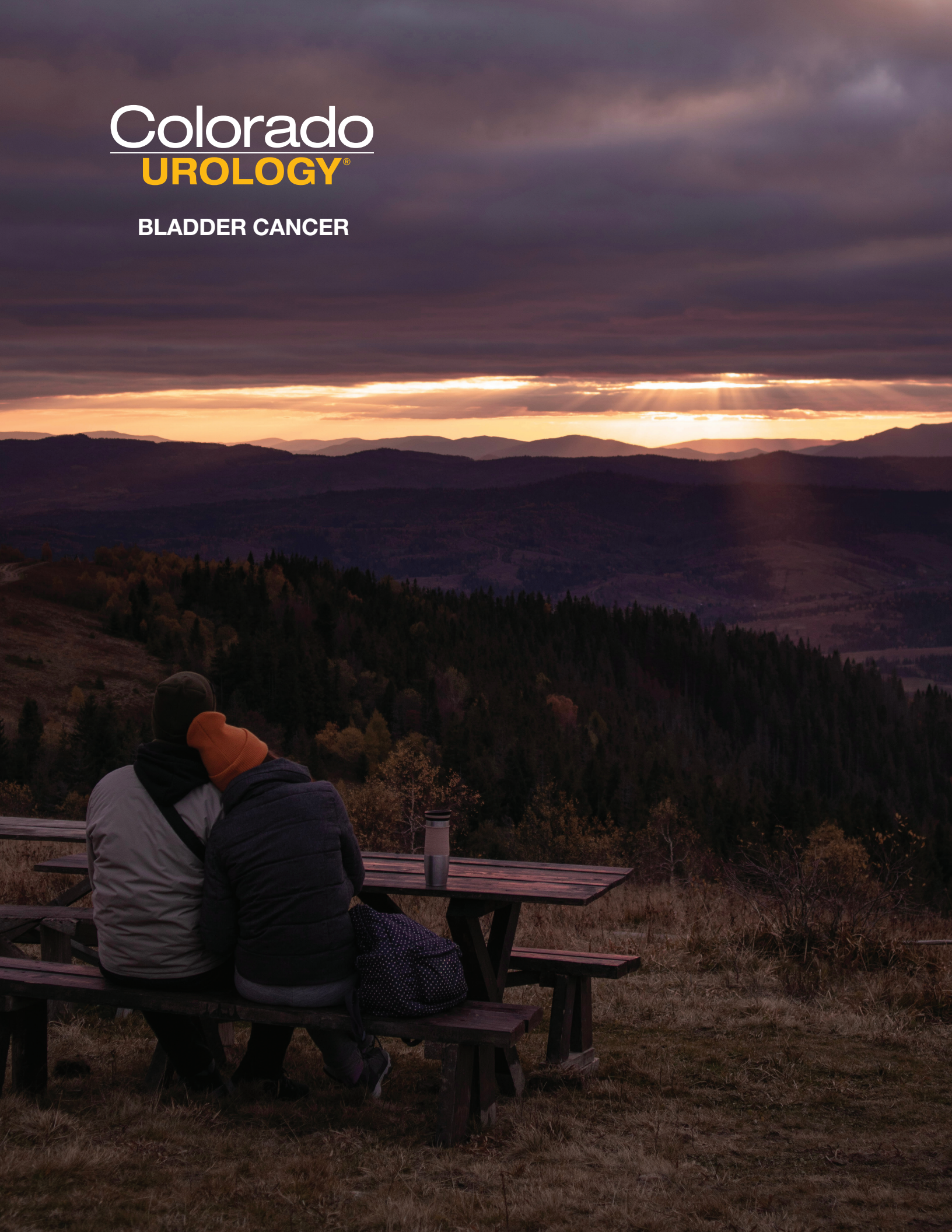


Colorado UROLOGY®

BLADDER CANCER



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According to the American Cancer Society, about 9 out of 10 people with bladder cancer are over the age of 55. The average age at the time of diagnosis is 73 years.

WHAT MAKES COLORADO UROLOGY'S BLADDER CANCER PROGRAM UNIQUE?

At Colorado Urology, our bladder cancer team understands that this is a difficult time for you and your loved ones. We are committed to providing you with the medical expertise and support you need throughout your treatment, and beyond. Our bladder cancer specialists will take the time to develop a personalized plan of care to meet your individual health needs.

WHAT YOU CAN EXPECT FROM COLORADO UROLOGY

Surgical and Medical Expertise – When it comes to bladder cancer, our urologic oncologists are fellowship-trained in the most up-to-date diagnostic applications and surgical techniques. We have experience with performing robotic-assisted and minimally invasive procedures for advanced bladder cancer as well as incorporating novel therapeutics to maximize treatment benefit for early-stage disease.

Advanced technology – Our urologists utilize the most advanced technology and innovations in bladder cancer to deliver the best possible outcomes. This includes Narrow Band Imaging Cystoscopy (NBI®) and Blue Light Cystoscopy with Cysview® which allow urologists to better visualize bladder tumors, as well as the da Vinci® Robotic Surgical System, a minimally invasive surgery platform used for advanced bladder cancer treatment.

Innovative Diagnostic Tools

- Narrow Band Imaging Cystoscopy®
- Blue Light Cystoscopy with Cysview®
- Urine Biomarkers
- Genetic Testing
- Da Vinci Surgical System®

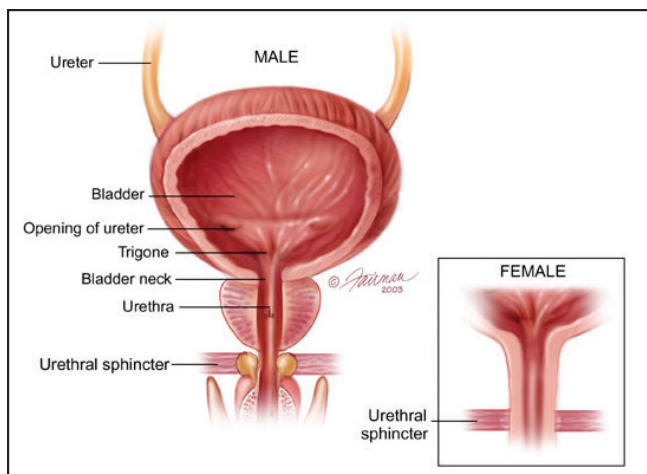
Novel Chemo-Immunotherapeutics:

- Mitomycin C
- Jelmyto®
- Gemcitabine
- Pembrolizumab
- Docetaxel
- BCG (bacille Calmette-Guerin)

Access to Clinical Trials – Colorado Clinical Research, a subsidiary of Colorado Urology, offers a number of clinical trials for both superficial and invasive bladder cancer. Well-designed clinical trials offer benefits that include access to the latest treatments before they are widely available and close monitoring of your condition by expert medical professionals.

High patient satisfaction – Year after year, our high patient satisfaction scores reflect the excellent care received by our urology care team.

When you choose Colorado Urology, you're choosing the very best bladder cancer care.



The bladder is a balloon shaped organ that collects urine from the kidneys and stores it until it is eliminated through a tube called the urethra. The most common type of bladder cancer, urothelial carcinoma (UC), starts in the lining of the bladder. Bladder cancer begins when the cells in the lining of the bladder start to grow out of control. Urothelial cancer can occur anywhere in the urinary tract including the bladder, urethra, kidneys and ureters.

Bladder cancer is actually very common; yet, most people don't know much about this disease. In fact, bladder cancer is the sixth most common form of cancer in the U.S. with more than 80,000 new cases diagnosed and 17,000 deaths

occurring each year. This cancer has the highest rate of recurrence of any form of cancer, including skin cancer, with a recurrence rate ranging between 50 and 80 percent.

The good news is, the majority of bladder cancers are diagnosed at an early stage—when it is highly treatable.

Today, there are almost 500,000 bladder cancer survivors in the U.S. If you are diagnosed with bladder cancer, do not lose hope. The caregivers at Colorado Urology are here to help you through both your bladder cancer journey and the years to come.

COMMON SYMPTOMS OF BLADDER CANCER

Early stages of bladder cancer often produce no symptoms. Your first warning sign may be hematuria (blood in your urine that may be visible or only seen under a microscope).

Other less common symptoms include:

- Painful urination
- Frequent urination or feeling an urge to urinate without results
- Slow or intermittent urine stream
- Pelvic pain

These symptoms, however, may indicate other medical problems, such as urinary tract infections, bladder stones or prostate disorders, which is why a thorough evaluation by a urologist is so important.

FACTS TO KNOW:

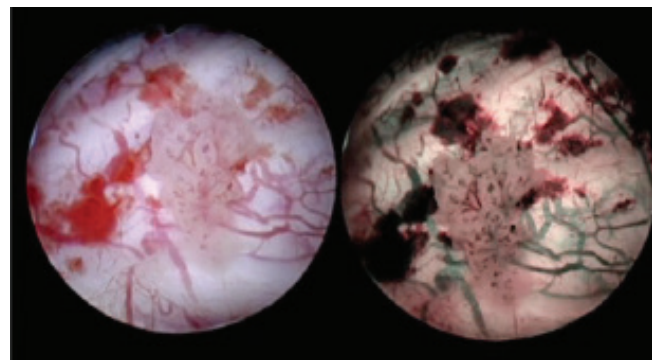
- Bladder cancer is the sixth most common cancer.
- The average age of diagnosis is early 70s.
- Tobacco use has been linked as a cause, or risk factor, for the development of bladder cancer.
- Caucasians are at a higher risk of developing bladder cancer.
- Family or personal history of bladder cancer is a risk factor for developing the disease.
- When bladder cancer is diagnosed and treated early, it often can be treated successfully.

Cigarette smoking is one of the top risk factors for bladder cancer. In fact, smokers are about four times more likely to get bladder cancer than people who have never smoked. The chemicals in tobacco smoke get into the bloodstream and are filtered by the kidneys into the urine where these toxic chemicals seep into the bladder.

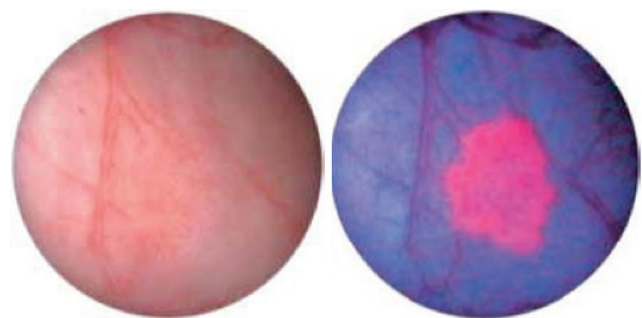
Because bladder cancer is highly treatable in the early stages of the disease, it is important to see your doctor if you are experiencing any unusual symptoms. To make an accurate diagnosis, your doctor will first perform a thorough history and physical exam. Other tests you may receive include:

- **Urine Cytology** – Examining urine cells under the microscope.
- **CT Urography** – Special x-rays that include contrast dye, to view the kidneys, bladder and connecting tubes.
- **Cystoscopy** – Involves inserting a thin scope into the urethra to view it and the bladder; if a mass is seen, a biopsy may be performed at that time or under anesthesia (also called transurethral resection of bladder tumor – TURBT).
- **Urine Biomarkers** – Along with other diagnostic tests, urine biomarkers can aid in the diagnosis of bladder cancer, guide treatment decisions, and help to monitor for cancer recurrence after treatment.

About 84,000 new cases of bladder cancer are diagnosed annually and more than 500,000 people in the United States are bladder cancer survivors. The average age at the time of diagnosis is 73. Men are 4 times more likely to get bladder cancer during their lifetime than women. [American Cancer Society]



This image shows the view from conventional white light cystoscopy alone compared to cystoscopy enhanced with NBI technology.



This image shows the view from conventional white light cystoscopy alone compared to cystoscopy enhanced with Blue Light.

Determining your disease class and stage helps your doctor plan for the best treatment protocol for you.

THERE ARE THREE MAIN DISEASE CLASSES FOR BLADDER CANCER:

- **Non-muscle invasive bladder cancer**, also called superficial bladder cancer, means the cancer is confined to the bladder lining.
- **Invasive bladder cancer** is cancer that has invaded into the muscular walls of the bladder or tissue surrounding the bladder.
- **Metastatic bladder cancer** is cancer that has spread to other organs.

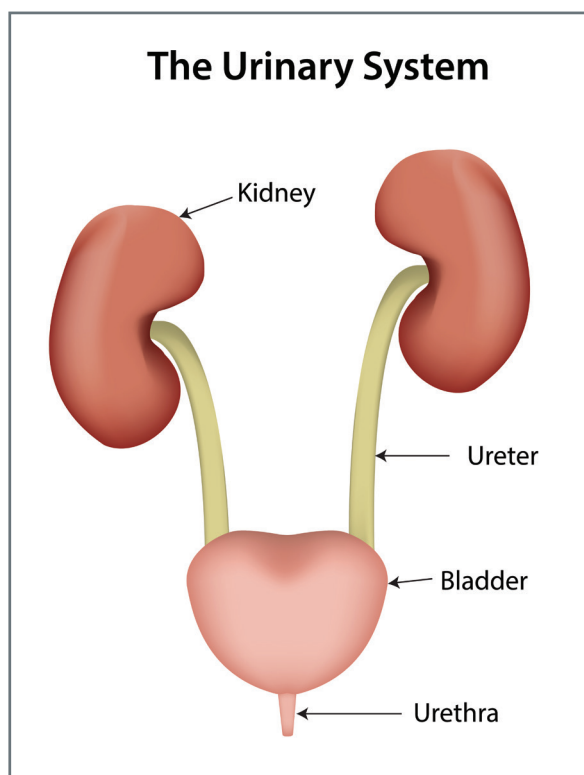
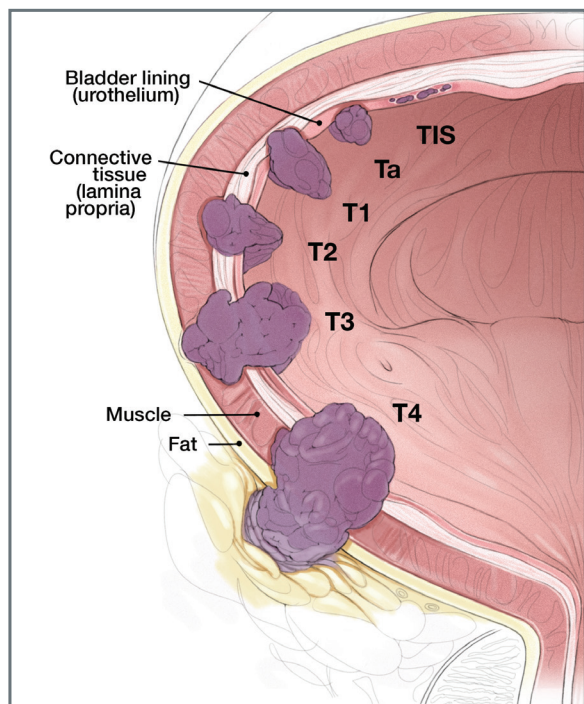
STAGING:

Superficial Bladder Cancer

- **Tis:** This is a flat, non-invasive cancer (also known as carcinoma in situ) that grows within the inner lining layer of the bladder only.
- **Ta:** The tumor is non-invasive (e.g. has not invaded past the inner lining of the bladder).

Invasive Bladder Cancer

- T1:** The tumor has grown from the layer of cells lining the bladder into the connective tissue below. It has not grown into the muscle layer of the bladder.
- T2:** The tumor has grown into the muscle layer.
- T3:** The tumor has grown through the muscle layer of the bladder and into the fatty tissue layer that surrounds it.
- T4:** The tumor has spread beyond the fatty tissue and into nearby organs or structures, such as the prostate, seminal vesicles, uterus, vagina, rectum, or abdominal/pelvic wall.



More on back...

YOUR UROLOGIST WILL ALSO CLASSIFY THE TUMOR AS EITHER LOW GRADE OR HIGH GRADE.

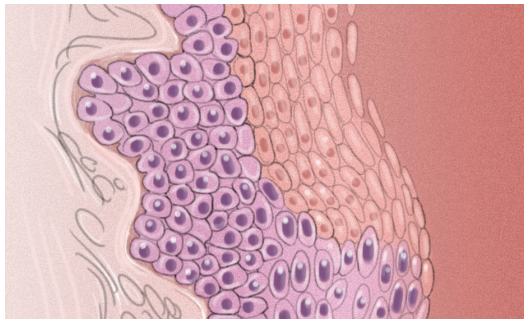
The grade refers to the aggressiveness of the tumor and can help predict cancer recurrence and/or progression, especially for superficial bladder cancer. By grading the tumor, your urologist will then be able to better create a plan of treatment.

- Low grade is the least problematic type of cancer, but it still has a chance of recurring and progressing.
- High grade is cancer that is most likely to recur and tends to progress and be more aggressive.

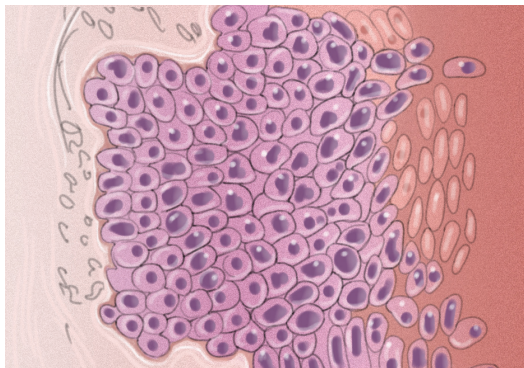
Normal



Low Grade



High Grade



Determining the appropriate treatment depends on a number of factors, including your health and age, tumor histology, tumor grade, and tumor stage.

FOR NON-MUSCLE INVASIVE BLADDER CANCER:

- **TURBT (transurethral resection of bladder tumor)** – This is an endoscopic surgery performed to remove a bladder tumor. A small telescope is passed via the urethra into the bladder and through the scope a loop is passed to remove the tumor. This procedure is not only therapeutic in removing all visible tumor, but it is also diagnostic in that it allows the physician to collect tissue for a pathologist to determine a cancer type, grade, and stage.
- **Intravesical Immunotherapy** – Bacillus Calmette-Guérin (BCG) is a live, but disabled bacteria, instilled into the bladder initially once weekly for six weeks after your TURBT. *Often this therapy is continued every 3-6 months to prevent reoccurrences.* BCG is used to trigger the body's immune response against the cancer cells. It is used to lower the risk of cancer from recurring.
- **Intravesical Chemotherapy** – Various chemotherapeutic agents can alternatively be instilled into your bladder in an attempt to prevent future recurrences of your tumor.
- **Intravenous Immunotherapy** – For patients whose cancer is unresponsive to intravesical therapy, there is an option to use intravenous pembrolizumab. This therapy is given every 3-6 weeks for up to 2 years.

FOR MUSCLE INVASIVE BLADDER CANCER

Surgery

- **Radical Cystectomy** – This technique involves the total removal of the bladder. The procedure usually also involves removal of lymph nodes and other sexual organs (the prostate and seminal vesicles in men; the uterus, fallopian tubes and ovaries in women). This treatment is recommended for patients with invasive bladder cancer, in some patients with high-risk, non-muscle-invasive cancer and when other non-surgical therapies have not been successful.

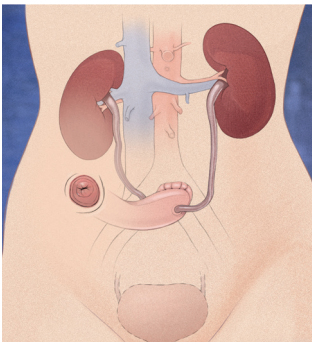
A radical cystectomy can be performed in a traditional open fashion or using the *DaVinci Robotic Platform*. Based on your health history and type of bladder cancer, your surgeon will determine if you are an appropriate candidate for a robotic cystectomy.

- **Urinary Diversion** – For patients who receive a radical cystectomy, your surgeon will perform a procedure called a urinary diversion, which provides your body with a way to potentially store and remove urine in the absence of your bladder.

There are several types of urinary diversion:

- **Ileal Conduit** – This is the most common and simplest type of urinary diversion. A segment of the intestine (ileum) is used to create a pipe or pathway, connecting the ureters to the outside of the body through an opening in the abdominal wall. The opening is called a stoma, and is covered with a bag that collects urine as it drains from the ileal conduit. This diversion is the easiest for many patients and has no physical limitations.

More on back...



Ileal Conduit

- **Neobladder** – A longer segment of the intestine is harvested and used to create a pouch that connects *your kidneys and ureters to your urethra*. With the neobladder, patients do not have to wear an appliance or bag, although incontinence, particularly at night, and *urinary retention requiring intermittent catheterization* are some of the disadvantages. This surgery is more complex and patients have to “re-learn” how to urinate.

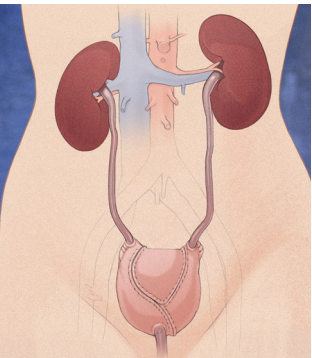
CHEMOTHERAPY

Intravenous chemotherapy is an important tool in the treatment of muscle-invasive bladder cancer, or bladder cancer that has spread to other areas of the body. Chemotherapy is recommended to be administered before surgery and if *radiation is chosen as the main treatment then chemotherapy is given at the same time*.

RADIATION THERAPY

Radiation therapy can sometimes be used in combination with intravenous chemotherapy (trimodality therapy) in patients with invasive cancer in an effort to save the bladder. In this case, your urologist will perform a transurethral resection of the bladder tumor (TURBT) and a medical oncologist and radiation oncologist will administer a combination of chemotherapy and radiation therapy respectively.

While there is no secret remedy to preventing a recurrence of bladder cancer, living a healthy lifestyle can help. Eat a diet full of fruits, vegetable, whole grains and healthy fats. Stop smoking and limit alcohol intake. Get plenty of exercise and sleep. And, don't forget to see your urologist regularly.



Ileal Neobladder

Q: Will I need a major (radical) surgery to treat my bladder cancer?

A: Colorado Urology surgeons often recommend radical surgery when a patient is diagnosed with invasive bladder cancer, or bladder cancer that has spread beyond the lining of the bladder wall. In these cases, surgery provides the best outcomes. Select patients with high-risk non-invasive cancer are candidates for surgery as are patients who have failed immunotherapy (BCG therapy) for non-invasive cancer. Your urologist will discuss all of your treatment options to help you make the most informed decision.

Q: How long will my hospital stay be if I have major surgery for bladder cancer?

A: On average, you can expect to be in the hospital for approximately five to seven days after bladder cancer surgery and urinary diversion. Your urologist will monitor your recovery closely

Q: What is recovery from major surgery like?

A: Full recovery from surgery typically takes about eight weeks. You will have some physical limitations initially as you heal as well as a learning curve for using urine pouch appliances if you choose an ileal conduit. You can expect to be tired and it will take some time before your system regulates and you begin to feel more like yourself. Call your doctor if you have any problems right away.

Q: Are there any clinical trials for bladder cancer?

A: Colorado Urology Research Associates, the research arm of our practice, runs clinical trials for a variety of urologic conditions. Your urologist will determine if you may be candidate to participate. A list of our current clinical trials are located on our website - www.coloradouro.com/specialties/clinical-trials/.

Q: Does Colorado Urology accept my insurance?

A: We participate with most major health insurance plans, including Medicare. It is important for patients to call their insurance carrier to confirm coverage and benefits as well as out-of-pocket costs such as copayments, coinsurance, and deductibles. Please visit our financial web pages to learn more about insurance coverage and our financial policies and support programs for patients at <http://www.coloradouro.com/patient-resources/>

We provide patients with a wealth of education, information and support to help in the fight against bladder cancer. When it comes to bladder cancer, you have the Colorado Urology healthcare team on your side as well as a wealth of online resources to discover. Following is a list of resources for bladder cancer support, information and education:

- **Colorado Urology Website** – Information on bladder cancer, diagnosis and treatments can be found at www.coloradouro.com/specialties/urologic-cancer/bladder-cancer/
- **Bladder Cancer Advocacy Network** – BCAN's mission is to advance research, provide information and support, and raise awareness about bladder cancer. *Visit www.bcan.org.*
- **Bladder Cancer Advocacy Network Support Community** – BCAN's bladder cancer online support community is available 24 hours a day. Over 4,000 bladder cancer survivors, caregivers, family members, and many others support each other through the different stages in their journey with bladder cancer. *Visit www.bcan.org/get-involved/.*
- **American Bladder Cancer Society** – Offers support and information as well advocates for the bladder cancer community. *Visit www.bladdercancersupport.org.*
- **American Cancer Society** – The ACS works to eliminate cancer as a major health problem through advocacy, support, education, fundraising events and more. *Visit www.cancer.org.*

FINANCIAL RESOURCES AND INFORMATION

When our patients need help with financial arrangements, we provide a variety of counseling and other financial resources. Our Patient Accounting Liaisons are available to assist you with billing questions as well as with finding financial resources, should you need to apply for medical assistance. Colorado Urology works with all major insurance plans including Medicare and Medical Assistance.

There are several payment options available for eligible patients, including CareCredit, a healthcare credit card that helps you pay for your out-of-pocket healthcare costs; financial assistance programs through state and local agencies; and our PHREESIA program which allows eligible patients to set up a payment plans through their personal credit cards.

During the financial process, we do whatever we can to provide support and alleviate your stress so that you can focus on your treatment and your health.

Patient: _____

Urologist: _____

Medical Oncologist: _____

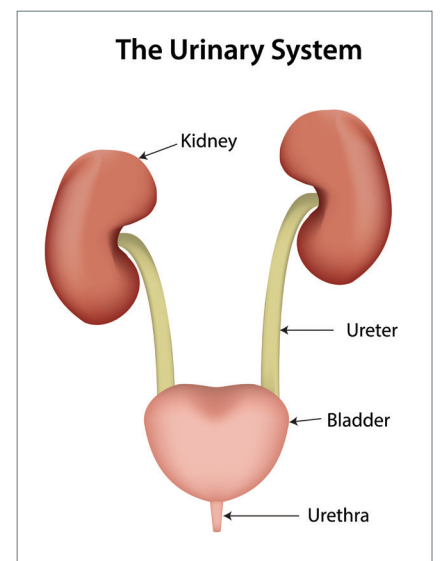
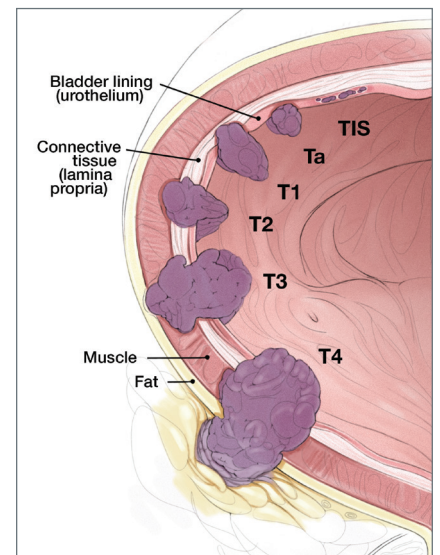
Radiation Oncologist: _____

YOUR PERSONAL INFORMATION

Stage: Ta T1 T2 T3 T4 Tis

Grade: High Low

Histology: _____



WHAT MAKES COLORADO UROLOGY'S BLADDER CANCER PROGRAM UNIQUE?

At Colorado Urology, our bladder cancer team understands that this is a difficult time for you and your loved ones. We are committed to providing you with the medical expertise and support you need throughout your treatment, and beyond. Our bladder cancer specialists will take the time to develop a personalized plan of care to meet your individual health needs. Everyone is different, which is why our team builds the care plan around you.

WHAT YOU CAN EXPECT FROM COLORADO UROLOGY

Colorado Urology is the leading urology practice in the state, providing our patients with a continuum of care and access to a wide range of urologic services, advanced technology, medical expertise and support. When you turn to Colorado Urology for bladder cancer care, you can expect:

- **A multidisciplinary team** – Our bladder cancer specialists include highly-trained urologists, medical oncologists that deliver chemotherapy, radiation oncologists, a uropathologist and support staff who are dedicated to providing the best care for you.
- **Experience** – Our urologists diagnose more than ??? cases and treat more than ??? bladder cancer patients each year.
- **Surgical and Medical Expertise** – When it comes to bladder cancer expertise, our urologic oncologists are fellowship-trained in the most advanced surgical techniques and are experienced in performing complex surgery for more advanced bladder cancer cases. This surgical expertise includes performing robotic-assisted and minimally invasive procedures. Additionally, our doctors perform complex neobladder reconstructive procedures.
- **Advanced technology** – Our urologists utilize the most advanced technology and innovations in bladder cancer diagnostics and treatments to deliver the best possible outcomes. This includes Narrow Band Imaging Cystoscopy (NBI®) and Blue Light Cystoscopy, innovative diagnostic tools that allow urologists to better visualize bladder tumors, as well as the da Vinci® Robotic Surgical System for advanced, minimally invasive surgery.
- **A broad range of services, a wide range of treatment options** – Our broad range of services are both diagnostic and therapeutic. From immunotherapy and radiation therapy to the most advanced surgical techniques for constructing a new bladder, our urologists and urologic oncologists recommend the best treatment option for your individual case.
- **Access to Clinical Trials** – Colorado Urology offers a number of clinical trials. Well designed clinical trials offer benefits that include access to the latest treatments before they are widely available and close monitoring of your condition by expert medical professionals.
- **Convenience** – With 11 medical offices throughout the greater Denver and Boulder areas, including Aurora, Lone Tree, Golden and Evergreen, we offer our patients convenient locations close to home and work.
- **High patient satisfaction** – Year after year, our high patient satisfaction scores reflect the excellent care received by our urology care team.



Suzanne B. Merrill, MD, FACS

Fellowship Trained: Urologic Oncology

Specializing in:

- Bladder, Kidney, Penile, Prostate and Testicular Cancer
- Upper Tract/Urothelial Cancer
- Abdominal Reconstructive Urology
- Robotics/Minimally Invasive surgery

Dr. Suzanne B. Merrill is a board-certified urologist specializing in the treatment of all primary and recurrent cancers of the urinary tract, including bladder, upper tract/urothelial, kidney, prostate, testicular, adrenal, and penile cancer. Dr. Merrill utilizes numerous surgical techniques to offer her patients more individualized care. She also provides her patients with top-of-class treatment options, incorporating novel medical/surgical therapies and clinical trial opportunities when appropriate.

Dr. Merrill completed her bachelor's degree with summa cum laude honors at The University of Delaware and obtained her Medical Doctorate at The University of North Carolina – Chapel Hill School of Medicine. She completed her residency at Duke University, followed by a Society of Urologic Oncology fellowship at The Mayo Clinic in Rochester, Minnesota. While at the Mayo Clinic, she also received a certificate in Translational Research.

Dr. Merrill has received numerous awards for her accomplishments and leadership including being named the American Urological Association Young Urologist of the Year in 2020, followed by her induction into the American Urological Association Leadership Program in 2020. Prior to joining Colorado Urology, she was an Associate Professor of Urologic Oncology and Residency Program Director at Penn State Hershey Medical Center in Pennsylvania, where she was recognized with awards for her outstanding faculty leadership and mentorship, as well as humanism and professionalism in surgery.

Throughout her career, Dr. Merrill has published over 50 peer-reviewed articles and been invited to speak at national society meetings regarding Oncology, research, and education. She is a faculty member for the American Urological Association Oral Board Review and Life Long Learning courses, which help urologists obtain and maintain their board certification status.

Dr. Merrill is a member of the Society of Urologic Oncology, the American Urological Association, the American College of Surgeons, the Society of Women in Urology and Alpha Omega Alpha Honor Society.

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