

Radical Cystectomy – A Patient’s Guide

Introduction

The urinary system, which includes the bladder, urethra, ureters, and kidneys, helps maintain stable chemical conditions in the body, stores, and eliminates waste products. The bladder, a muscular chamber located in the lower abdomen, acts as a reservoir to collect urine. Two narrow tubes called ureters carry urine from the kidneys to the bladder. From the bladder, urine is emptied through another tube, the urethra, during urination.

According to the American Cancer Society, in 2013, approximately 70,000 people in the United States will be diagnosed with bladder cancer, and approximately 25% of them will eventually need to have their bladders removed to control the cancer. Bladder cancer occurs three times more often in men, usually between the ages of 50 to 70 years old.

The Surgery

The surgical procedure in which the bladder is removed is called a radical cystectomy. Bladder cancer has a tendency to spread, and thus the bladder and the surrounding organs are usually removed.

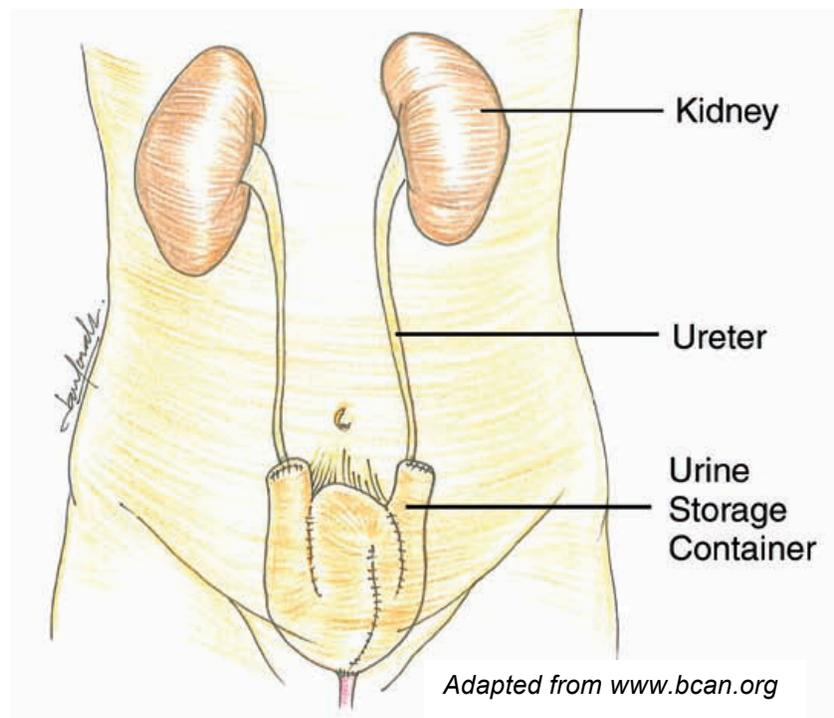
In men, the prostate, seminal vesicles, and surrounding lymph nodes are removed. Men will not ejaculate after surgery. Although the ability to have an orgasm is not affected, many men may not be able to have a penile erection. It may be possible to spare the nerves controlling penile erection and/or the prostate capsule in some men. In these cases, restoration of potency can occur. Alternative methods of achieving an erection can be used and should be discussed.

In women, often the ovaries, fallopian tube, uterus, cervix, part of the vagina, and surrounding lymph nodes are removed. Women who have their cervix or part of their vagina removed may have difficulty with sexual intercourse during the first few months after surgery. After several months, the tissue in the vagina may relax and lengthen, making sexual intercourse possible. In some patients, these additional organs can be preserved.

Every patient with bladder cancer is different. Most patients can be treated with a robotic-assisted laparoscopic operation in which 6 small incisions are created to insert the laparoscopic ports. A small incision is made in the abdomen to create the urinary diversion, although this is done robotic-assisted laparoscopically in select patients. Advantages of the robotic-assisted laparoscopic surgery can be decreased blood loss, shorter hospital stays, and earlier return to full activities. In the open operation, an incision is made in the abdomen from the navel to the pubic bone.

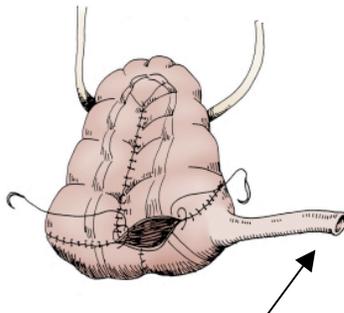
Urinary Diversion

Once the bladder is separated from the ureters and urethra, it is necessary to provide another way to collect and drain the urine. Several options exist and depend on the overall health of the patient, the extent of cancer, and an individual's motivation and active participation in their care.



In selected patients, a portion of the intestines is used to create a new bladder or **neo-bladder**. The ureters are joined to one end of the neo-bladder and the other end is connected to the remaining portion of the urethra. The new bladder is constructed in such a way that it will provide a reservoir to store urine and control urine flow. You may urinate in much the same way you do now.

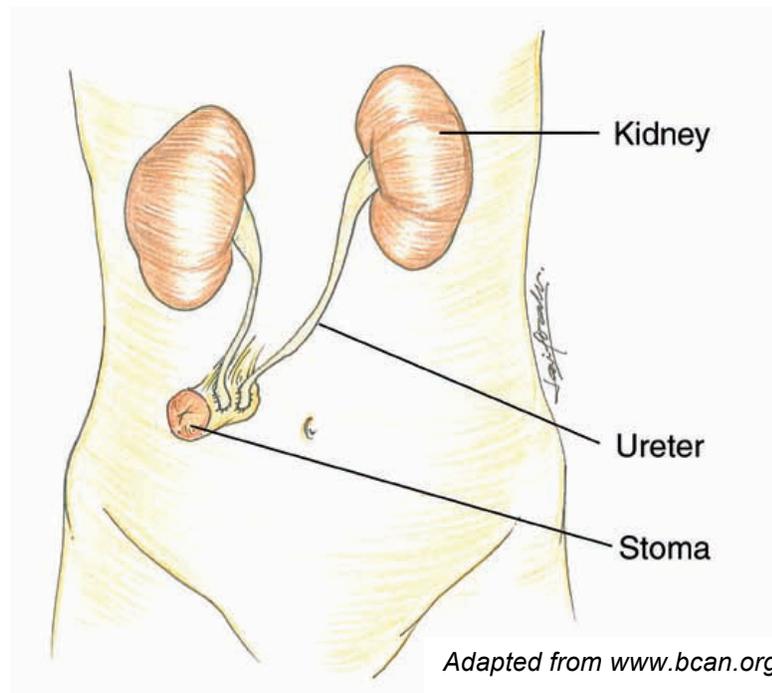
Adapted from Campbell-Walsh Urology



Ureters connected to pouch
with catheterizable stoma

However, at the time of surgery if your urethra is involved with cancer, it will need to be removed and some patients may benefit from creating a **continent diversion**, where one end of the new bladder will be brought out to the side of the abdomen to create a stoma without the use of an appliance bag. A small catheter is then passed through the stoma to drain out the urine and empty the new bladder 4 to 6 times a day.

For both neo-bladders and continent diversions, you may need to irrigate your new bladder to remove excess mucus. Since the urinary diversion is constructed from the intestine, the presence of mucus in the urine is normal following this surgery. These options are the most complex reconstruction requiring a motivated individual and both may require the ability to self-catheterize the bladder.



Some patients are better served by creating a simpler **ileal conduit**. This is created using a shorter portion of intestine between the ureters to a stoma connected to the side of the abdomen. It acts as a funnel to drain urine from the kidneys to an appliance attached to the patient's skin. It has the disadvantages of requiring an ostomy bag, but is a shorter and simpler operation with the least chance of post-operative or long-term complications.

Before the Operation

You will be admitted to the hospital the day of your operation. The anesthesiology team will discuss with you about their portion of the surgery. Most patients may receive an epidural, which is a good option to manage post-operative pain. The usual hospital stay is 5 to 7 days. On the day of surgery, your family can wait for you in the surgical waiting area on the first floor of the Ronald Reagan Hospital. It usually takes 4 to 6 hours to complete this operation. On completion of the operation I will contact your family there.

A portion of your intestines will be used to create the urinary diversion. Most people can eat up to the night before the operation. Typically I will ask you to use an enema to clear the rectum prior to surgery. My office will specify the specific bowel preparation instructions.

After the Operation

After the operation, you will be taken to the recovery room for 1 to 2 hours until you are awake and stable. Any pain or discomfort will be relieved with medications.

Many patients will have an epidural, while others will receive a powerful medication called Toradol or narcotics as needed. Most will be transferred to a regular hospital room.

You will be able to start drinking liquids the day after surgery. Intravenous fluids will provide nutrition as well. Drinking and eating too soon may lead to nausea or vomiting. You will also not have a bowel movement for several days after surgery until the intestines recover.

It is important to sit up and walk the day after surgery. This will help prevent serious complications such as pneumonia and blood clots to form in the legs. Nurses and physical therapists will assist you as needed.

Support

You will not go through this surgery alone. While in the hospital you will be given instructions on the care of your catheters and stents. A nurse specializing in stomas will see you several times if you have a stoma. For many of our patients, visiting nurses will come to your home daily to help you care for your drains and check on you after you are discharged.

A radical cystectomy and urinary diversion can present a difficult emotional adjustment. Support is available to help patients deal with this impact on their lives. A social worker is part of the team to care for patients while in the hospital. Patients or their families can request a social worker to help provide emotional support during this difficult time. After discharge, the social worker can provide names and numbers of support groups. You can call (310) 825-7171 to talk to the social workers.

Drains

To provide drainage of urine from your kidneys to the urinary diversion, you will have two temporary stents (rubber tubes) that will be visible on the outside of your body. With a neo-bladder or continent diversion, you will also have a catheter to drain the bladder until it heals. With an ileal conduit, you will have only an appliance over the stoma. All patients will usually also have a temporary drain connected to a bulb to collect extra fluid. This is usually removed before discharge.

Again, since the urinary diversion is constructed from the intestine, the presence of mucus in the urine is normal following this surgery. The mucus will decrease over a period of time. This is especially important for neo-bladders and continent diversions. Immediately after surgery, to prevent the catheters from becoming plugged, it is important that they be regularly flushed with sterile water. You will be given supplies and taught how to irrigate these catheters.

The stents and catheters may stay in place up to 2 to 3 weeks to allow adequate time to heal. I will let you know when they will be removed.

Medications

When you go home, most patients will be prescribed medication for pain and medication to prevent constipation, a common side effect from pain medication. Take these as directed.

Diet

Specific diet recommendations will be given at the time of discharge. Most patients will be able to eat a regular diet at the time of discharge. However, it is common for the intestines to slow down after this type of surgery, so we recommend eating smaller, more frequent meals, and drinking plenty of liquids until your initial follow-up appointment.

Physical Activity

It is critical to remain active even while you are recovering from surgery. Walking every day is important and will speed up the healing process, decrease depression, and increase muscle tone. It takes approximately 6 weeks for the surgical area to heal completely. Please do not do any heavy lifting, strenuous exercises, or excessive stair climbing during this time. Typically, you may drive a car when you are walking well are not taking any more prescription pain medications.

Return to Work

The length of time patients stay home from work depends on the amount of physical effort their work requires and how quickly they are healing. The average length of disability is usually 6 to 8 weeks. Recovery from the ileal conduit is generally faster than the other forms of diversion.

Pathology

It takes about 5 working days for the pathology to return. Generally you will still be in the hospital. If not, I will call you with the results. Based on the pathology, we may discuss with you future treatments that may be necessary.

Follow-Up Appointments

Call the office to make an appointment for your post-operative check. It is usually 2 to 3 weeks after your discharge.

For patients who receive the neo-bladder, you will notice that you will not be able to hold urine in the neo-bladder initially. This is temporary. Please buy incontinence pads or pull-ups for the first few weeks to months after the surgery. Most patients will gain control of their urine within a few months.

Even after surgery, you will need to be seen routinely in clinic to make sure the cancer has not returned or to arrange further treatments. Make sure you don't miss any follow-up appointments.

Please call the office if:

- You notice any pain, swelling in your legs, sudden chest pain, or shortness of breath
- Expanding redness, tenderness, warmth, or swelling at the incision
- You develop a fever
- You develop severe nausea or vomiting
- The catheters become completely plugged

Please call the office at 310-206-6453 if you have any questions.