Procedure information

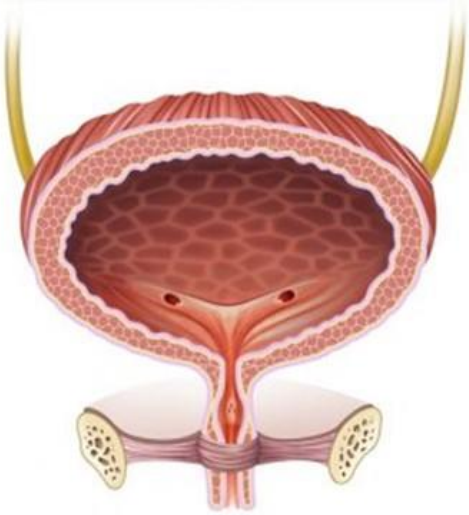
Cystectomy

What is a cystectomy?

Cystectomy is a procedure to completely remove the bladder.

After the bladder is removed, the flow of urine is usually diverted into a segment of bowel which is brought out onto the skin on the abdomen as a stoma. This is known as an ileal conduit.

Alternatively, sometimes it is possible to create a new bladder out of a segment of bowel, which is connected to the urethra. This is known as a neobladder.



Bladder

Why is a cystectomy required?

Cystectomy is usually performed to treat aggressive life-threatening bladder cancer.

Occasionally cystectomy is performed for non-cancerous conditions, for example when the bladder has been severely damaged by interstitial cystitis or radiotherapy.

What does a cystectomy involve?

Before the operation

Before the operation you will be seen by a specialist nurse who will talk to you about how to manage a stoma bag.

You will need to be on a low residue diet for a few days prior, and clear fluids only on the day before surgery. You will be given specific instructions regarding this. When in hospital, prior to surgery, your doctor my prescribe a medication to help clear out the bowel.

During the operation

Cystectomy is performed under general anaesthetic (completely asleep).

Open cystectomy - We make an incision in the middle of the abdomen from the pubic bone to the level of the belly button.

Robotic cystectomy - We inflate your abdominal cavity with carbon dioxide gas to create space to perform the operation. We usually make 6 keyhole incisions in your abdomen, through which we insert the surgical instruments.

We completely remove:

- The bladder.
- In men, the prostate gland and seminal vesicles are usually also removed.
- In women, the uterus, fallopian tubes and ovaries are usually also removed.
- Sometimes the urethra is also removed.
- If the operation is for cancer, the lymph nodes surrounding the bladder are usually also removed.

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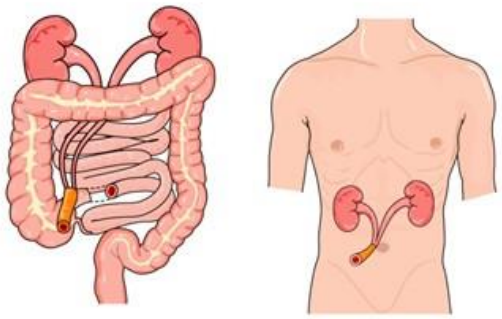
Cystectomy

Creating an ileal conduit

If we are creating an ileal conduit, a 15cm segment of small bowel is separated from the rest of the small bowel to make the conduit.



One end of the conduit is joined to the ureters (tubes draining the kidneys). The other end of the conduit is brought out on the skin on the abdomen to form a stoma.

Urine drains continuously via the stoma into a stoma bag.

The remainder of the small bowel is joined back together.

Creating a neobladder

If we are creating a neobladder. A 40-60cm segment of small bowel is separated from the rest of the small bowel. This segment is refashioned into a reservoir which can hold approximately 150 to 250ml of urine. The neobladder is connected to the urethra and ureters.

This allows you to pass urine via the urethra.

The remainder of the small bowel is joined back together.

At the end of the operation

Your wounds are closed with stitches or staples.

One or more drainage tubes are placed coming out of the abdomen.

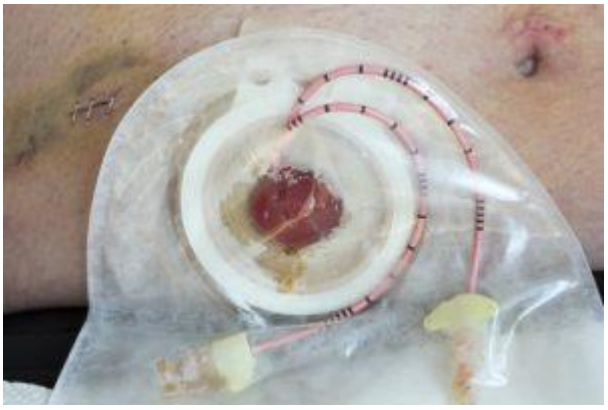
Where the ureter (tube from the kidney) is joined onto the bowel, a splint known as a ureteric stent is placed to allow the join to heal. There is one stent placed in each ureter.

If you have a neobladder, a catheter is placed through the urethra. Temporary tube(s) are placed through the front wall of the bladder to the skin to divert urine while the bladder heals.

What is the recovery after a cystectomy?

You may spend the first one or more nights after the procedure in the intensive care unit (ICU). You will usually be in hospital for one to two weeks after the procedure.

You will not be able to eat normally for the first few days after the procedure because the bowel slows down. An ileus is where the bowel stops, which can take up to seven days to recover. Once the bowel starts working normally you can slowly return to eating.



The drains coming out of the abdomen will be removed while you are in hospital. The stents coming out of the ureters (pictured) may be removed while you are in hospital, or at your first outpatient appointment.

If you have an ileal conduit, you will be taught how to manage the stoma bag (pictured) before discharge from hospital.

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Cystectomy

If you have a neobladder, the bladder is flushed with water several times a day via the catheter. You or a carer will be taught to flush the bladder, so you can do this at home after discharge from hospital. The catheters in the neobladder will be removed three to four weeks after the procedure.
In men, it is very common to get swelling of the penis and scrotum after this procedure. It will take several weeks to settle down.

You will not be able to drive for four to six weeks after the procedure.

You will not be able to return to work for at least six weeks after the procedure.

You will not be able to exercise or do strenuous activities for six to eight weeks after the procedure.

It is very common to feel tired and need to nap during the day after the procedure. It will take three to six months for this to improve.

What are the risk of a cystectomy?

The risks of this procedure include (but are not limited to):

Risks during the operation (excluding anaesthetic risks) include:

Occasional risks (1/10 to 1/50):

- Major bleeding requiring a blood transfusion.
- If you are having a neobladder, sometimes it isn't possible to make a neobladder and it is necessary to make an ileal conduit instead.

Rare risks (1/50 to 1/250):

- Injury to the rectum (the last part of the large bowel) requiring formation of a colostomy (bringing the bowel through to the skin on the abdomen and requiring a second bag) to allow time for the bowel to heal.
- Injury to another organ.

***Risks shortly after the operation include*:**

Common (1/2 – 1/10)

- Prolonged slow-down of the bowel known as an ileus.
- Pneumonia (chest infection).
- Wound infection.
- Urine infection.
- Leak of urine from the join between the ureters and the bowel, or from the neobladder.

Occasional (1/10 – 1/50)

- Blood clots in the legs or lungs.
- Bleeding after the operation requiring another procedure to fix and/or a blood transfusion.
- Collection of pus (abscess) in the abdomen or pelvis requiring another procedure to correct.
- Collection of tissue fluid (lymph) in the abdomen or pelvis, sometimes requiring another procedure to correct.
- Leak from the join in the bowel (~1/20) requiring another procedure to correct.
- Blockage of the bowel requiring another operation to correct.

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Cystectomy

Very rare

- Death.

Long term risks include:

Very common (most patients)

- Men will be infertile and will not ejaculate after the procedure.
- Most men will no longer be able to get an erection after the procedure.
- Women will be infertile after the procedure if the uterus is removed.
- In women, the vagina will be shorter than before the procedure. Sex after the procedure may be painful.

Common (1/2 - 1/10)

- The cancer may return after the procedure. The risk of this will depend on the final results from the bladder and lymph nodes which will be tested after the procedure. If the cancer returns and spreads through the body, it is incurable, and most people will die in less than two years.
- In men it is common to incidentally find prostate cancer when the prostate is removed. Occasionally this requires further treatment.
- Scaring at the join between the ureter and the bowel can block the kidney. This may require another procedure to correct.
- Recurrent urine infections.
- Kidney stones.
- Worsening kidney function, sometimes leading to kidney failure requiring dialysis.
- A hernia may form in the incision. This may require another operation to correct.

Occasional (1/10 - 1/50)

- Swelling of the legs (lymphoedema).
- Scar tissue (adhesions) may form around the bowel causing blockage. This may require another procedure to correct.

Long term risks specific to an ileal conduit include:

Common (1/2 – 1/10)

- A hernia may form alongside the ileal conduit. This may require another procedure to correct.

Occasional (1/10 – 1/50)

- A problem with the ileal conduit requiring another procedure to correct.

Long term risks specific to a neobladder include:

Very common (most patients)

- Incontinence of urine is very common. It should improve over 12 months. For some patients long-term incontinence is a problem, especially at night.

Common (1/2 – 1/10)

- Urinary retention (inability to pass urine) can occur, which may require you to pass a catheter into the neobladder several times a day to empty the neobladder.

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- Vitamin B12 deficiency requiring lifelong injections of Vitamin B12.
- Changes in the acid and salt levels in the blood resulting in fatigue, nausea and osteoporosis. After a neobladder you may need to take a medication lifelong to reduce the chance of this happening.
- A problem with the neobladder requiring another procedure to correct.
- Sometimes the neobladder needs to be converted into an ileal conduit.

Occasional (1/10 – 1/50)

- Scaring in the urethra (urethral stricture), or at the join between the neobladder and the urethra, making it difficult to pass urine, usually requiring another procedure to correct.
- Chronic diarrhoea due to removal of a large segment of bowel.
- Rupture of the neobladder due to overfilling, usually requiring an emergency procedure to correct.

Other uncommon or very uncommon risks of surgery and anaesthesia include:

- Blood clots in the legs (Deep vein thrombosis (DVT)) or lungs (Pulmonary embolus).
- Chest infection (Pneumonia).
- Heart attack.
- Stroke.
- A serious allergic reaction (Anaphylaxis).
- Death.

What are the alternative treatment options?

Trimodal therapy is an alternative to cystectomy for the management of aggressive bladder cancer. It involves a combination of:

- transurethral resection of the bladder tumour (TURBT), and
- chemotherapy, and
- radiotherapy.

It is not as successful as cystectomy at curing aggressive bladder cancer. It is usually only recommended if you are unable to have surgery due to other medical issues.

This is general information only. Please consult your doctor for more information and treatment options.

For appointments and enquiries please contact 07 3830 3300.

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