

Prostatectomy - for cancer

Radical prostatectomy is one of the treatment options for prostate cancer. This surgery involves removing the prostate gland and the seminal vesicles (small glands located immediately above the prostate that produce seminal fluid). The bladder is then rejoined to the urethra, which is the tube that allows urine to pass to the outside.

Sometimes, the surgeon may also need to remove the nearby lymph nodes. This is called pelvic lymph node dissection. Possible side effects of surgery include urinary incontinence and impotence.

The prostate gland is part of the male reproductive system. This ring-shaped gland surrounds the urethra and makes the majority of the fluid that forms the ejaculate (cum). This fluid also has a role in keeping sperm healthy.

About 3,800 men in Victoria are diagnosed with prostate cancer every year. Treatment options include a surgical operation (radical prostatectomy), radiotherapy or, in some cases, active surveillance (a 'watch-and-wait' approach).

Suitable candidates for prostatectomy

Radical prostatectomy is not suitable for every patient with prostate cancer. Good candidates for the procedure are otherwise healthy men with a life expectancy of at least 15 years, whose prostate cancer has not spread (metastasised) to other parts of their body. The aim of a radical prostatectomy is to remove the cancer before it spreads.

Risks of surgery

Radical prostatectomy is considered to be a cure for localised prostate cancer (prostate cancer that has not spread). However, no surgery is without risks. It is important to talk to the surgeon about the risks, benefits and limitations of radical prostatectomy before undergoing treatment.

The surgical risks that occur at or soon after the surgery may include:

- **Bleeding as a result of the surgery** – this may require blood transfusion. In rare cases, another operation is required.
- **Infection** – this may occur at the site of the wound, in the urinary tract or chest, or through an IV needle ('drip'). Treatment may include antibiotics.
- **Deep vein thrombosis** – this occurs when blood clots form. This can be life-threatening if the clot dislodges within a blood vessel and travels to the lungs (pulmonary embolism). Patients are given special stockings to wear during the operation and recovery period. They are also placed on blood-thinning medications to prevent this complication. If it does occur, treatment may include additional blood-thinning medications.
- **Injury to nearby organs or structures** – the rectum, bladder and ureters (two slender tubes that drain urine from the kidneys into the bladder) are close to the prostate and may be accidentally injured by surgical instruments. Further surgery to repair the damage may be required.

Side effects of prostatectomy

While a radical prostatectomy can be a life-saving procedure, some men may experience unwanted side effects. You need to discuss these issues with the surgeon before you undergo treatment. Possible side effects include:

- **Impotence** – the inability to get or keep an erection. About seven or eight men out of every 10 who undergo the surgery will experience impotence to some degree. This is because radical prostatectomy may injure some of the nerves that service the penis. Treatments for impotence are available. The risk of developing impotence after surgery is related to the ability to gain and maintain erections **before** the operation. The patient's age and some surgical factors, related to how advanced the disease is, are also important considerations.
- **Urinary incontinence** – this is the involuntary passing of urine. Urine is held inside the bladder by the urinary sphincter, located at the apex or end of the prostate. Radical prostatectomy may result in sphincter injury. Also, injury to nerves may cause incontinence. About one third of men who undergo the surgery have some degree of urinary incontinence. In most cases, the incontinence improves with time and is not severe. In approximately two to five out of every 100 men, the incontinence is severe enough to require further surgery. However, improvement may take three to 12 months. You may have to wear continence pads.
- **Urinary obstruction** – in rare cases, scar tissue forms at the point where the urethra was rejoined to the neck of the bladder and this can interfere with the flow of urine. Surgery may be needed to remove the scar tissue. This often occurs along with incontinence problems.

Prostatectomy procedure

A radical prostatectomy is performed under general anaesthesia. The surgeon may access the prostate gland in a number of ways, including:

- **Radical retropubic prostatectomy** – the surgeon makes a single incision (cut) in the abdomen from below the umbilicus (belly button) to the pubic bone (the hard bone under the pubic hair). This is the most common approach, though laparoscopic and robotic prostatectomies are increasing in number.
- **Laparoscopic radical prostatectomy** – laparoscopy is also known as 'keyhole surgery'. A slender viewing instrument (laparoscope) is inserted through a small incision in the navel. Other surgical instruments may be introduced through other small incisions in the abdomen. This can also be done with the aid of a robot (see below). This procedure may be associated with a shorter recovery time, but this is not proven. There appears to be no difference in complication rates of surgery, irrespective of the technique used.
- **Radical perineal prostatectomy** – the surgeon makes the incision in the area between the scrotum and the anus (perineum). This is rarely performed.
- **Robotic radical prostatectomy** – this uses the da Vinci robot to perform a robotic radical prostatectomy. The advantage is that it has more precision than standard laparoscopic surgery, so there is less pain.

Once the pelvic organs are located, the surgeon removes the entire prostate gland and the small section of urethra that runs through the prostate gland (prostatic urethra). The urethra is then reattached to the bladder. Once surgery is completed, a slender tube (catheter) is inserted into the urethra to drain urine from the bladder. The catheter may be kept in place for one to three weeks, depending on the surgeon, while the incision sites heal.

Immediately after a prostatectomy

After the operation:

- Expect a hospital stay of between two and five days.
- Nurses will monitor your vital signs.
- Pain can be managed with medications.
- You may be given antibiotics to reduce the risk of infection.
- You may have a drip inserted into your arm or hand for a few days after the operation.
- You will be fitted with a small tube (catheter) in your abdomen. The catheter drains fluids into an attached bottle. This catheter will be removed about one to three weeks after the operation.
- You will most likely have a drain tube out of your abdomen that will be removed in the first day or two after the surgery.
- The surgeon can tell you when the urinary catheter will be removed. In most cases, you will have to go home still wearing the catheter. The catheter is attached to a bag that collects the urine and you will be taught how to care for it if this is required.

Taking care of yourself at home

Issues to keep in mind include:

- The surgeon will give you instructions on self-care during the recovery period. Follow these instructions carefully.
- You may need to have an x-ray examination called a cystogram before the catheter is removed. This test helps to check that your incision sites are healing properly.
- Full recovery may take around six weeks. Avoid strenuous exercise or heavy lifting. The surgeon will tell you when you can expect to return to work.
- See the surgeon immediately if you notice any signs of infection such as fever, discharge, redness, swelling or problems with urination. If you can't see the surgeon, visit your local GP or attend the emergency department of your nearest hospital.

Long-term outlook

You will need to attend all follow-up appointments with your doctor or surgeon. You will be told about the test findings relating to the prostate that was removed. The doctor will explain the findings to you and then you may have blood tests with a PSA (prostate-specific antigen) at various times after this to check that there is no recurrence. If there is recurrence, further treatment may be advised.

Where to get help

- Your doctor
- Urologist
- The Cancer Council Helpline Tel. 13 11 20

Things to remember

- The aim of a radical prostatectomy is to remove the cancer before it spreads to other parts of the body (metastases).
- Radical prostatectomy is considered to be a cure for localised prostate cancer.
- Talk to your surgeon about the risks, complications, possible side effects and benefits of surgery before you undergo treatment.

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