Prostatectomy - for cancer

Summary

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

Radical prostatectomy is one of the treatment options for prostate cancer. This surgery involves removing the prostate gland and the seminal vesicles, which are small glands located immediately above the prostate that produce seminal fluid.

The bladder is then reattached to the urethra, which is the tube that allows urine to pass outside the body. Sometimes, the surgeon may also need to remove the nearby lymph nodes. This is called pelvic lymph node dissection.

The prostate gland is part of the male reproductive system. This ring-shaped gland surrounds the urethra and its main role is to make fluid that protects and feeds sperm. The prostate makes about half of the fluid that forms the ejaculate.

Around 4,000 men in Victoria are diagnosed with prostate cancer every year. Treatment options include a surgical operation (radical prostatectomy), radiotherapy or, in some cases, no treatment (watchful waiting) or active surveillance, which includes repeat prostate-specific antigen (PSA) tests and prostate biopsies to monitor the cancer.

Suitability for prostatectomy

Radical prostatectomy is not suitable for every person with prostate cancer. Good candidates for the procedure are otherwise healthy men with a life expectancy of at least 10 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 prostatectomy

Radical prostatectomy is intended 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 your surgeon about the risks, benefits and limitations of radical prostatectomy before undergoing treatment.

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 intravenous needle (IV or drip). Treatment may include antibiotics.
- Deep vein thrombosis (DVT) – 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). People are given special stockings to wear during the operation and recovery period. They are also placed on blood-thinning medication to prevent this complication. If it does happen, treatment may include having more blood-thinning medication.
- 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
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 your surgeon before you undergo treatment.

Possible side effects include:

- Impotence (erectile dysfunction) – this is the inability to gain or maintain 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 person’s age and some surgical factors, related to how advanced the disease is, are also important factors.

- 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. 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 usually occurs 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 navel (belly button) to the pubic bone (the hard bone under the pubic hair). This is the most common approach, though laparoscopic and robotic prostatectomies described below 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 (belly button). Other surgical instruments may be introduced through other small incisions in the abdomen. This procedure may be associated with a shorter recovery time. It can also be done with the aid of a robot.

- Robotic radical prostatectomy – uses the da Vinci robot to perform a robotic radical prostatectomy. The advantage is that it has more precision than standard open and laparoscopic surgery, so there is less pain.

- Radical perineal prostatectomy – the surgeon makes the incision in the area between the scrotum and the anus (perineum). This is rarely performed.

Once surgery is completed, a slender tube (catheter) is inserted into the urethra to drain urine from the bladder. The catheter will be kept in place for one to three weeks, depending on the surgeon, while the incision sites heal.

Whichever surgical technique is used, there appears to be no difference in the rate of complications from surgery so these procedures are regarded as equivalent treatments for prostate cancer.

Immediately after a prostatectomy

After the operation:

- Expect a hospital stay of between two and five days.
- Nurses will monitor your vital signs.
- Pain will be managed with medication.
- 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.

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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.

You will be fitted with a small tube (catheter) in your penis. The catheter drains urine into an attached bottle or bag. This catheter will be removed about one to three weeks after the operation. Your surgeon will tell you when it can be removed.

In most cases, you will have to go home still wearing the catheter. You will be taught how to care for it.

**Self-care at home after a prostatectomy**

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 doctor or attend the emergency department of your nearest hospital.

**Long-term outlook after prostatectomy**

You will need to attend all follow-up appointments with your doctor or surgeon. You will be told about the test findings relating to your removed prostate. The doctor will explain the findings to you.

You may have blood tests for PSA (a protein produced by cells of the prostate gland, present at higher levels in men who have prostate cancer or other prostate disorders) at various times after this, to check that there is no recurrence of your cancer. If there is recurrence, further treatment will be advised.

**Where to get help**

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

**Things to remember**

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- You should talk to your surgeon about the risks, complications, possible side effects and benefits of surgery before you undergo treatment.