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## Prostatectomy - for cancer

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### Summary

- 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.
  - You should talk to your surgeon about the risks, complications, possible side effects and benefits of surgery before you undergo treatment.
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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. Radical prostatectomy is one of the treatment options for prostate cancer. This surgery involves removing the prostate gland and the seminal vesicles (small glands that produce seminal fluid, located immediately above the prostate).

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.

Other treatment options for prostate cancer include:

- radiotherapy
- active surveillance – no treatment. Involves active monitoring of prostate cancer that is not causing symptoms and is thought to be low-risk (small, slow-growing, not likely to spread). Monitoring involves repeat prostate-specific antigen (PSA) tests, MRIs and biopsies to check if the cancer gets worse
- watchful waiting – no treatment. Repeat PSA tests are used to monitor the cancer. This approach is often used in men who are 75 years or over, or who have other health problems.

### 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 (IV) needle or drip. Treatment may include antibiotics.
  - **deep vein thrombosis (DVT)** – this is when blood clots form. DVT can be life-threatening if the clot dislodges within a blood vessel and travels to the lungs (pulmonary embolism). People are given special
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stockings to wear during the operation and recovery period. They are also given blood-thinning medication to prevent this complication. If DVT does occur, 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 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. Discuss potential side effects with your surgeon before you start treatment.

Possible side effects of prostatectomy include:

- impotence (erectile dysfunction)
- urinary incontinence
- urinary obstruction
- anejaculation (lack of ejaculation).

### **Impotence**

Impotence (or erectile dysfunction) is 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:

- your ability to gain and maintain erections before the operation
- your age
- some surgical factors related to how advanced the disease is.

### **Urinary incontinence**

Urinary incontinence is the involuntary passing of urine (urinating without meaning to). About one third of men who undergo radical prostatectomy have some degree of urinary incontinence afterwards.

Urine is held inside the bladder by the urinary sphincter, located at the end of the prostate. Incontinence can occur if the urinary sphincter or nerves are injured during surgery.

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. Some men 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.

### **Anejaculation**

All men who have a radical prostatectomy will develop anejaculation (no longer be able to ejaculate), because the prostate and the seminal vesicles that together produce the seminal fluid (ejaculate) have been removed. This can affect sexual pleasure, and means that the man is no longer fertile (able to have children).

Many men maintain erectile function (are able to get and keep an erection) after radical prostatectomy, and most men will be able to orgasm.

### **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)

- laparoscopic radical prostatectomy – laparoscopy is also known as 'keyhole surgery'. The surgeon inserts a slender viewing instrument (laparoscope) 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, a shorter hospital stay and less blood loss during the procedure
- radical perineal prostatectomy – the surgeon makes an incision in the area between the scrotum and the anus (perineum). This is rarely performed.

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 will be kept in place for one to three weeks, depending on the surgeon, while the incision sites heal.

The rate of complications from these surgeries is the same, whichever surgical technique is used, so these procedures are regarded as equivalent treatments for prostate cancer.

### **Immediately after a prostatectomy**

After the operation:

- You will stay in hospital for two to five days.
- Nurses will monitor your vital signs.
- Your 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.
- 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**

The surgeon will give you instructions on self-care at home during the recovery period, including instructions for how to care for your catheter. 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 after surgery 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. They will tell you about the test findings relating to your removed prostate, and explain the findings to you.

You may have blood tests for PSA (a protein produced by cells of the prostate gland, sometimes 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, your healthcare professional will advise further treatment.

## Where to get help

- Your **GP (doctor)**
- **Urologist**
- **Cancer Council Helpline** Tel. **13 11 20**

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