

Robotic Assisted (Da Vinci®) Radical Prostatectomy

Surgery to remove the prostate gland is one of the ways of treating early or localised prostate cancer. Active surveillance, brachytherapy and external beam radiotherapy are all alternative treatments for early or localised prostate cancer. Your doctor should discuss with you which options are suitable for you.

A radical prostatectomy is an operation performed by a specialist surgeon, it involves the removal of the prostate, seminal vesicles and surrounding tissues. Lymph nodes that are part of the lymphatic system which normally helps fight infection or disease may also be removed during this operation. Radical prostatectomy may be performed in several different ways.

- Open retropubic (through an abdominal incision) prostatectomy
- Perineal prostatectomy (through an incision in the area between the testicles and back passage)
- Laparoscopic (Keyhole) :-
 - Standard approach (by hand)
 - Robotic assisted (Da Vinci®)

This leaflet discusses robotic assisted (Da Vinci®)

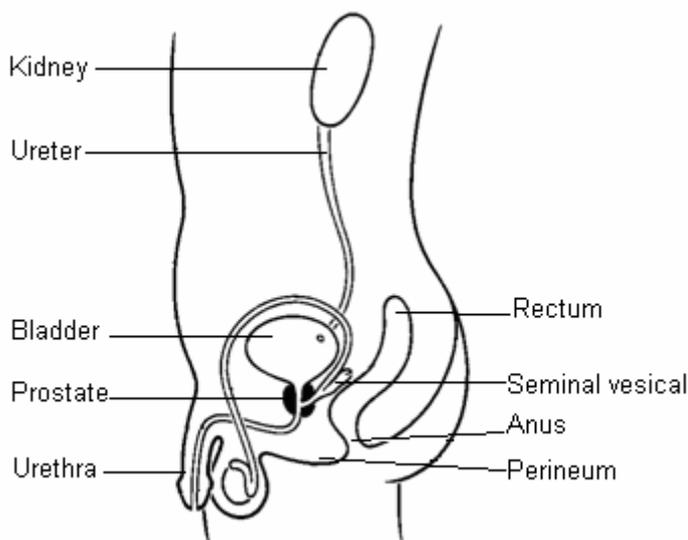


Figure 1 side view



What is robotic assisted (Da Vinci®) prostatectomy?

The **Da Vinci® prostatectomy** operation involves the removal of the prostate and the seminal vesicles (two small glands behind the prostate). The bladder is then rejoined to the urethra (the water pipe which runs through the penis). The procedure is carried out under general anaesthetic and you will, therefore, be asleep throughout the operation. The surgeon will make small “keyhole” or “port” incisions through which a camera and instruments are inserted. Six ports are needed for a radical prostatectomy; one for a high-magnification 3D camera to allow the surgeon to see inside your abdomen, the others are for instruments. The instruments are approximately 7mm wide and are designed to move in a similar way to the human hand and wrist. In fact they have a greater range of movement than the human hand, enabling the surgeon to carry out the operation in a small space.

In the operating theatre a robotic console with four robotic arms will be placed beside you. Three arms are for instruments and one is for the high-magnification 3-D camera. The surgeon performing the operation sits at a console which is in the same room but away from the operating table. The console contains master controls which the surgeon uses to manipulate the instruments inside the patient. The robot cannot work on its' own.

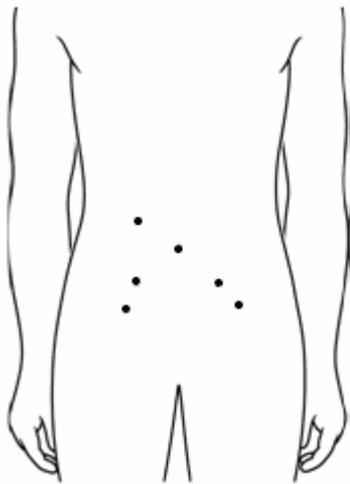


Figure 2 The Da Vinci prostatectomy incisions

The length of time taken to perform the surgery is usually between three to four hours. Recovery afterwards is usually quicker than in open surgery. Your fitness for such an operation will be assessed and discussed by your urologist. The urologist will discuss the details of the procedure with you during your outpatient appointment. You should be aware that there is a small chance your procedure may need to be converted to an open procedure. If for any reason you would not agree to an open operation under any circumstances, we would be unable to go ahead with the robotic operation.

What happens before the procedure?

Before the prostatectomy you will be asked to attend the hospital to make sure you are fit for the anaesthetic. This is called a pre-assessment visit. This appointment can take **three – four hours**. During this appointment you will meet:

A Pre- Assessment Nurse who will undertake the following



- A history of your current and past health concerns or problems including any medication you may be taking
- A physical examination
- Blood tests
- MRSA screen (to find out if you are a carrier of MRSA). You may have had this done on a clinic visit. So this will not need to be repeated.
- ECG (electrocardiogram) to check heart rhythm
- Observations including blood pressure, temperature, pulse height, weight and abdominal girth measurement. In order to perform the surgery your weight must be **below 100kg** and abdominal girth is **less than 40 inches**. This makes surgery easier and you will have a better recovery. If your weight or girth measurements are too great then we may need to postpone surgery. If you require any information about healthy eating and exercise, then please speak with the pre-assessment nurse.
- Referral for other tests if required.

You **may** also meet;

- The **Uro-Oncology Clinical Nurse Specialist (CNS)** who will recap the details of your surgery and will discuss what to expect after you operation. You will also be shown some of the equipment you will use after the operation for example a urinary catheter, drainage bags, and support straps. You will have an opportunity to ask questions.
- An **anaesthetist** who will ask you about your past and current health concerns as well as what medicines you are taking. If you have had a history of heart or breathing problems the anaesthetist may refer you for further tests. This is to check that you are fit for an anaesthetic. You will be able to ask the anaesthetist any questions about your anaesthetic or pain control after the operation.
- **A member of the surgical team** will fully discuss the aims, extent of the surgery and potential risks of the procedure. This explanation is essential to help you make an informed decision and sign a consent form agreeing to surgery.

It would be helpful if you could bring the following information to your pre-admission appointment:

- **GP address and phone and fax number** – so that we can keep your GP fully informed of your treatment and recovery.
- **Community nurse's address, phone and fax number** – when you go home, we will refer you to the community nurses to provide you with additional home support for about one week. The community nurses are often based at your GP surgery.



*If after surgery you are **NOT** going home to your current address you will have to register as a **temporary resident** with the GP of the family/friends you will be staying with. This is so that you can have access to the Community Nurses covering that area. We will need the contact details of your temporary GP and community nurse team.*

If you do not meet everyone on your pre-assessment visit you will meet them when you come into hospital for your operation. Please ask if you are not happy with something, or do not understand what is being said.

Transport – you will need to consider how you will get to and from the hospital. You will need to be at the hospital at 7am for same-day surgery. There are no parking facilities in this hospital. If you are travelling by public transport then please check the times of your trains/buses/tubes to ensure that you can arrive on time. **If you are going home by public transport, please make sure you have someone to go home with you as you will not be able to lift any heavy objects for six weeks.**

Hospital transport is only provided on exceptional medical grounds. Please tell the pre-admission team if you think you may have transport problems.

Common side-effects (1 in 10 patients)

- Temporary insertion of a bladder catheter
- Temporary difficulties with urinary control
- Impairment of erections due to unavoidable nerve damage (20-50% of men with good pre-operative sexual function)
- Inability to ejaculate or father children because the structures which produce seminal fluid have been removed (occurs in 100% of patients)
- Discovery that cancer cells have already spread outside the prostate requiring further treatment

Occasional side-effects (between 1 in 10 patients & 1 in 50)

- Scarring at the bladder exit resulting in weakening of the urinary stream and requiring further surgery (2-5%)
- Severe urinary incontinence (temporary or permanent) requiring pads or further surgery (2-5%)
- Blood loss requiring transfusion or repeat surgery
- Further treatment at a later date, including radiotherapy or hormone treatment
- Lymph collection in the pelvis if lymph node sampling is performed
- Some degree of mild constipation can occur. We will give you medication for this but, if you have a history of piles, you need to be especially careful to avoid constipation.



- Apparent shortening of the penis. This is because when the prostate gland is removed, the urethra is rejoined to the bladder neck
- Development of a hernia (abnormal bulging of an organ through a weakened muscle wall) in the groin area at least six months after the operation

Rare side-effects (less than 1 in 50)

- Anaesthetic or cardiovascular problems that might require admission to the critical care unit. These include chest infection, pulmonary embolus (blood clot in a blood vessel in the lung), stroke, deep vein thrombosis (blood clot in a deep vein, usually the leg), heart attack and death
- Pain, infection or hernia at incision sites
- Rectal injury requiring a temporary colostomy
- Injury to nerves which control the muscles on the inside of the thigh
- Damage to nerves supplying legs (neuropraxia) resulting in numbness or weakness.
- Damage to the tubes (ureters) from the kidneys to the bladder
- Bowel injury needing a temporary stoma/bag

Contact details

If you have any further questions after reading this information, please contact your consultants or your uro-oncology nurse specialist on the numbers listed below.

Consultant: 0207 352 8171 and ask to be put through to consultant office

Clinical Nurse Specialist (your key worker): Amanda Baxter 0207 808 2817

Transitional Care Unit: 0207 808 2405/2406

