

Urology department

# Robotic radical prostatectomy

## Introduction

This booklet gives you information about a procedure which uses keyhole surgery to remove the prostate using robot assistance. It is called Robot Assisted Laparoscopic Prostatectomy or RALP.

There are other methods for removing the prostate including open surgery or laparoscopic (keyhole) surgery. These do not involve the use of a robot.

The advantages of RALP include:

- shorter hospital stay
- less pain
- less risk of infection
- less blood loss reducing the need for a blood transfusion
- less scarring
- faster recovery
- quicker return to normal activities such as driving.

Robot-assisted techniques give the surgeon:

- high quality vision
- 3-D view of the operating field
- enhanced dexterity
- greater precision
- 6 to 10 times magnification.



Fig 1a The surgeon's console



Fig 1b Robot with specialised arms



## The procedure

The da Vinci surgical system is a sophisticated robotic platform (Fig 1a on the previous page). It consists of a surgeon's console where the surgeon sits and carries out the operation. The specialised instruments are passed through keyhole openings in the tummy (Fig 2b) which are then connected to the specialised arms of the robot. The surgeon manipulates the instruments within the tummy with precision by moving the master controls at the console.

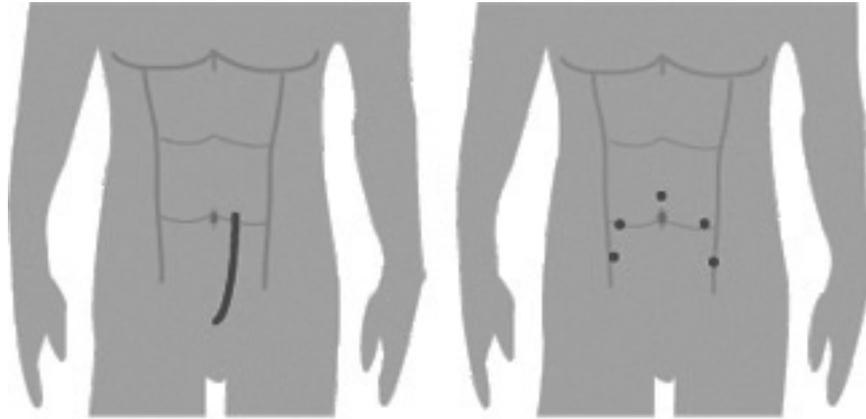


Fig 2a Open Prostatectomy Incision

Fig 2b da Vinci Prostatectomy incisions

## Consent

We will ask you to sign a consent form agreeing to accept the treatment that you are being offered. The basis of the agreement is that you have had The Christie's written description of the proposed treatment and that you have been given an opportunity to discuss any concerns. You are entitled to request a second opinion from another doctor who specialises in treating this cancer. You can ask your own consultant or your GP to refer you. Your consent may be withdrawn at any time before or during this treatment. Should you decide to withdraw your consent then a member of your treating team will discuss the possible consequences with you.

## Are there any alternatives to this operation?

There are other methods of treatment for prostate cancer:

- radiotherapy – X-rays delivered to the prostate
- brachytherapy – radioactive seeds inserted into the prostate
- 'active surveillance' – this is not actually a treatment but a means of postponing treatment involving regular examination of the prostate and prostate-specific antigen (PSA) testing
- hormone therapy – blocking the production of testosterone to stop the cancer cells is also a method of treatment for prostate cancer but probably not suitable for a man who has been offered the option of surgery
- there are also some newer therapies but these are only usually given in a study setting, as the long-term outcomes and acceptability of these treatments are not as well-established as the other treatments we have described.

## What happens if I have no treatment?

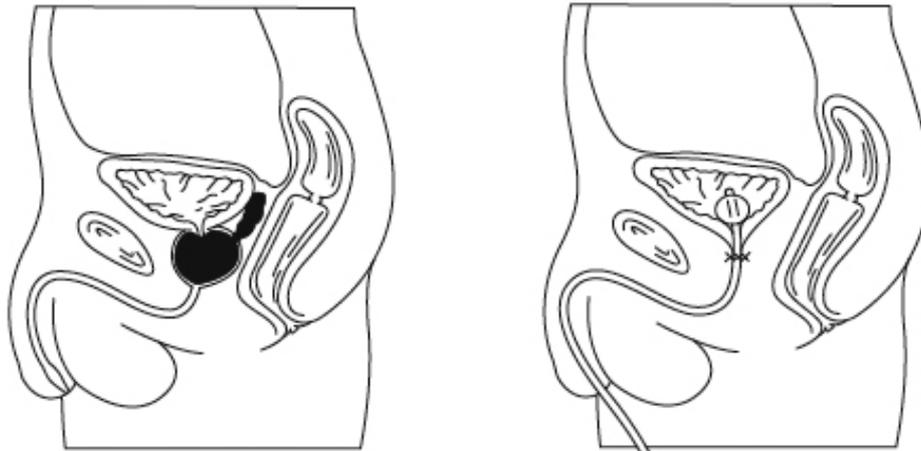
In many cases of 'early' prostate cancer, there is no rush to have treatment as it could be months or years before the prostate cancer would seriously affect health. However, it is not easy to determine which cancers can be left a little longer. For many men, there is the concern that if they do not have treatment sooner, then they may have left things too late.

If prostate cancer is left untreated and a man has no regular check-ups, then the cancer will continue to grow and could cause symptoms. These include urinary problems (frequency of passing urine, difficulty in passing urine and incontinence) and impotence (inability to get an erection). If the cancer spreads outside of the prostate, it would cause other symptoms and then be difficult to offer treatment to cure the disease.

## What are the risks and benefits of the operation?

The benefits of having an operation for prostate cancer at this stage include a potential cure from the cancer.

Many men choose a surgical treatment as the cancer within the prostate gland is removed from the body (See Fig 3). The advantages of robotic prostatectomy over open surgery have been explained earlier in this booklet.



**Fig 3 Removing the prostate: before and after the operation**

### **Possible early (but uncommon) complications of an operation are:**

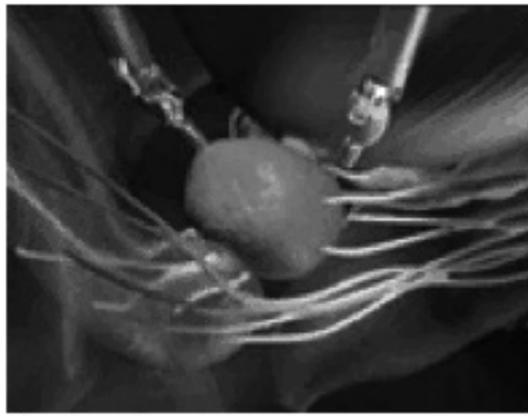
- chest infection
- blood clots in the leg (DVT or deep vein thrombosis) which could pass into the lungs (PE or pulmonary embolus)
- heart irregularities because of the anaesthetic or operation
- bleeding during the operation which may require a blood transfusion
- injury to nearby nerves or tissues
- infection in the wound sites.

These are the most common complications of surgery but we take all the precautions possible to avoid complications.

It is also important to remember that even if you chose to have a robotic prostatectomy, there may be unplanned occurrences during surgery. This would mean that the surgeon would need to change from this procedure and complete the operation using an 'open' approach.

### **Specific consequences of the robotic operation**

- **Temporary swelling of the penis and scrotum.** This is a short term effect of the surgery and will resolve in 2 to 3 weeks after the operation.
- **Incontinence.** By incontinence we mean leakage of urine that can occur if you cough, sneeze, laugh or carry out heavy lifting work. At these times, there is more pressure in the pelvis so urine can be forced out of the bladder.  
Immediately after removal of the catheter, you will notice some leakage of urine. This improves over the next few weeks with pelvic floor exercises which are described later. Most men will be continent at 3 months and a smaller proportion will take up to 6 months. After this, there is a small risk of ongoing incontinence for 4 out of 100 men.
- **Impotence (inability to get an erection for sexual intercourse).** The risk of impotence after surgery varies. This depends on a man's erectile function (ability to get an erection) before the operation and whether it was possible to save the nerves during the operation. This type of robot assisted prostatectomy means that it may be possible to preserve the nerves around the prostate in some cases. Your surgeon will discuss this with you.



**Fig 4 Robot operating arms detaching prostate from surrounding tissue and nerves**

## What happens before the procedure?

We will ask you to attend the hospital as an outpatient for a pre-operative assessment. At this pre-admission clinic, a healthcare professional will:

- ask questions about your medical history
- assess your heart and lung function
- take a specimen of blood for analysis
- take swabs from your skin to make sure that you do not have an existing infection
- ask you if you have any questions about the operation.

The date of your operation will have been given to you by the time you come to the pre-operative assessment clinic.

You will be admitted to the ward the day of the operation where you will meet the medical and nursing staff who will be looking after you during your stay.

Before the operation, we will ask you to stop eating and drinking (about 4 to 6 hours beforehand), apart from water, which you can drink up to 2 hours before the operation.

You will be invited to take part in the Enhanced Recovery After Surgery programme (ERAS+). Taking part in this programme can help reduce the risk of surgery related complications and get you back to your normal activities as soon as possible. It will help you to understand what you can do to improve your health and fitness before you have your operation, what to expect when you are in hospital and how to continue your recovery at home.

## After your operation

When you come out of theatre, we will take you to the recovery area where you will be monitored until your condition is stable and you are ready to go back to the ward.

On the ward, you will be able to eat and drink when you feel able.

Painkilling tablets will be offered to you on a regular basis. It is important that you feel as comfortable as possible after the operation so that you can move without assistance and be walking around the ward the next day.

There will be dressings on your abdomen over the sites used during the operation. These dressings can be removed about 48 hours after the operation. There will also be a drain (fine plastic tube) coming from the area where the prostate was and out on to your abdomen. This is usually removed the day after your operation.

## When will I be allowed home?

Most men will be ready for home the day after the operation. If your operation is late in the day, it may mean that you need to stay 2 nights in hospital. If you are well enough, you will be allowed home the day after the operation.

**Your catheter** will stay in place for 7 to 10 days after the operation. You will need to know how to look after it at home during this time.

## Your arrangements for going home

We will give you a supply of painkillers to take home. If you find that you are still uncomfortable when you have finished the supply, you can get some more from your GP.

To ensure that your bowels move properly, we will give you some laxative medicine to stop you from getting constipated after the operation.

As part of blood clot prevention therapy you will have blood thinning injections for 28 days after the operation and you will need to wear anti-embolism stockings during this time. The ward staff will teach you (or a member of your family) how to give the injections when you are at home.

At first your abdomen will be swollen from the gases that are pumped in during surgery to allow the operation to be carried out. This swelling will reduce over the course of the next 3 to 4 days but, in the meantime, it's best to wear clothes that are loose-fitting around the waist.

The ward staff will arrange for a district nurse to visit you when you are at home. The district nurse will check your wounds and dressings, check that you are able to give your blood thinning injections, and make sure that you are managing with the catheter.

## Contacting The Christie

If you experience problems with the catheter, or if you feel unwell or suspect a wound infection when you are at home, please contact The Christie Hotline on **0161 446 3658**.

If there is a problem with the catheter when you get home, phone the ward **0161 446 3860** and they will contact the team looking after you.

## Removal of the catheter

We will give you an appointment to attend the surgical day case unit 7 to 10 days after your operation. Here, a member of the nursing team will deflate the balloon which holds the catheter in place and then remove the catheter.

To prepare for the possibility of a leakage of urine after your catheter has been removed, it would be a good idea to have a supply of pads at home. 'TENA' make a style of pad to be worn inside underwear that is specifically for men (TENA for men). They come in a range of four strengths, so it would be advisable to get a mix of at least two different strengths. You can usually buy these from chemists although you may have to ask as they are not often on display or ask them to order the pads for you. Supermarkets also stock these pads, usually in the female sanitary wear section. Alternatively, you can order pads directly from TENA direct on **0800 393 431**, or online at [www.tenadirect.co.uk](http://www.tenadirect.co.uk).

You will not be eligible for pads on an NHS prescription as the leakage of urine after the operation is considered to be temporary.

## Getting back to normal

Recovery after laparoscopic surgery is much quicker than following 'open' surgery. However, you will need to allow yourself some time to return to normal activity.

Gentle exercise such as walking is encouraged as soon as you get home. Some sporting activities could be gradually reintroduced about 4 to 6 weeks after surgery. However, you should avoid heavy lifting for 6 to 8 weeks.

You should be able to start driving again when you are able to make an emergency stop without feeling pain (around 2 weeks).

You should also be able to go back to work at this stage. However, if your job involves heavy manual-type activities you should probably wait another month before returning.

## Follow-up after a robotic prostatectomy

We will ask you to return to the outpatient department for a regular review. The first time will usually be a month after the operation when we will be able to discuss the results of the prostate analysis from the laboratory (histology result).

We will also take a specimen of blood for PSA testing. After surgery we would expect that the result of this test would be less than  $<0.1\mu\text{g/L}$ . After this first visit, we will ask to see you every 3 months for the first year and every 6 months after that for the next two years.

## Improving your continence with pelvic floor exercises

Pelvic floor exercises can help many men regain control of their bladders. The exercises work by strengthening the muscles that control peeing. This can mean re-strengthening weakened muscles or training surviving muscles to deal with what was once dealt with by two muscles.

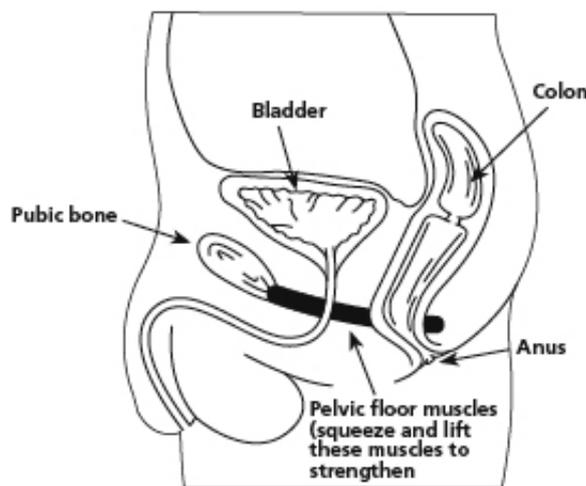


Fig.5 The pelvic floor muscles

Pelvic floor exercises can be done by healthy men to help prevent future incontinence, or by men who have undergone surgery on the prostate.

### Finding the correct muscles

Sit or lie down. Relax your thighs, buttocks and stomach. Tense your muscles as if you are trying to stop peeing or passing wind. You should feel a lifting sensation inside and a tightening of the muscles around your anus. You should not be tensing your thighs, buttocks or stomach. You can also learn what tensing the correct muscles feels like by stopping and starting your stream whilst peeing. Don't do this regularly though, only enough to find the muscles.

### The exercises

Once you have found the correct muscles, and know what it feels like when you tense them, you should do the following exercises.

- Tense the muscles so you feel a lifting sensation. Hold this lift for as long as you can up to 10 seconds. Don't hold your breath whilst doing this. Relax. You should have a definite feeling of letting go.
- Wait 10 to 20 seconds then repeat the 'lift'. You should aim to lift then relax 12 times.
- Do 5 to 10 short fast lifts.

You should try to spend 5 to 10 minutes each day on this exercise routine. As you get better at the exercises, you should try to increase the time you hold the contractions. Try to see how many you can do before your muscles start to feel tired. Also, increase the number of short, fast lifts you do.

Regular training of these muscles for 4 to 6 months will improve the control you have over peeing.

If you suffer from stress incontinence, remember to contract the muscles before you sneeze, cough or try to lift anything.

© Exercises reproduced by kind permission of the Prostate Cancer UK

## Contacts

Surgical oncology unit – 0161 446 3860

### **Macmillan urology clinical nurse specialists:**

Jane Booker – 0161 446 8018

Steve Booth – 0161 918 2369

Sharon Capper – 0161 446 3856

Helen Johnson – 0161 918 7000

Catherine Pettersen – 0161 918 7328

Mandy Bell – 07787 275658 (Monday, Wednesday and Friday)

## Further information

### **Macmillan Cancer Support**

Cancer information nurse specialists can answer questions about cancer, treatments and what to expect. Information about living with cancer, information practical support as well as benefits advice is also available. Interpreters are available for non-English speakers.

Tel: 0808 808 00 00 (Monday to Friday 9am – 8pm).

If you are hard of hearing, use the text phone 0808 808 0121

[www.macmillan.org.uk](http://www.macmillan.org.uk)

### **Cancer Research UK**

For information about cancer treatment and support in other languages, freephone 0808 800 4040.

You can speak to an information nurse via an interpreter.

### **Prostate Cancer UK**

Helpline: 0800 074 8383

[www.prostatecanceruk.org](http://www.prostatecanceruk.org)

### **Prostate Cancer Support**

Offer information and support to men with prostate cancer and their families

Tel: 0845 456 0678

[www.prostatecancersupport.org](http://www.prostatecancersupport.org)

### **Maggie's centres**

The centres provide a full programme of practical and emotional support including psychological support, benefits advice, nutrition and headcare workshops, relaxation and stress management.

#### **Maggie's Manchester**

Contact Maggie's on 0161 641 4848 or email [manchester@maggiescentres.org](mailto:manchester@maggiescentres.org)

The Robert Parfett Building, 15 Kinnaird Road, Manchester M20 4QL

#### **Maggie's Oldham**

Contact Maggie's on 0161 989 0550 or email [oldham@maggiescentres.org](mailto:oldham@maggiescentres.org)

The Sir Norman Stoller Building, The Royal Oldham Hospital, Rochdale Road, Oldham OL1 2JH

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

We try to ensure that all our information given to patients is accurate, balanced and based on the most up-to-date scientific evidence. If you would like to have details about the sources used please contact [patient.information@christie.nhs.uk](mailto:patient.information@christie.nhs.uk)

For information and advice visit the cancer information centres at Withington, Oldham or Salford. Opening times can vary, please check before making a special journey.

Contact The Christie Hotline for  
urgent support and specialist advice  
**The Christie Hotline: 0161 446 3658**  
Open 24 hours a day, 7 days a week

