



Robotic Radical Prostatectomy

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.



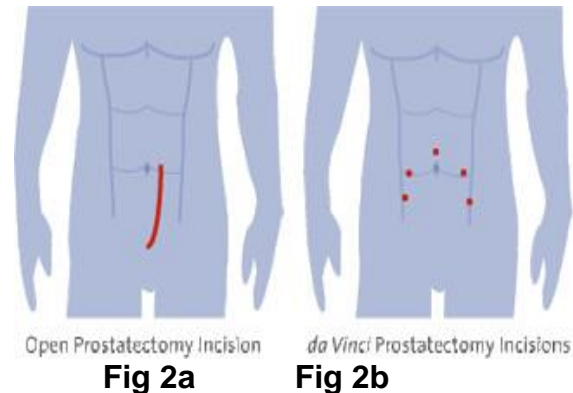
Fig 1 The surgeon's console



Robot with specialised arms

The procedure

The da Vinci surgical system is a sophisticated robotic platform (Fig 1). It consists of a surgeon's console where the surgeon sits and carries out the operation. The specialised instruments are passed through key-hole 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.



Consent

The surgeon will have explained the procedure and the reasons why this particular operation is an option for you. This information is a permanent record of what has been explained. We advise you to read the booklet carefully before you sign the consent form which states that you are prepared to go ahead with the operation.

We will ask you to sign the consent form agreeing to accept the operation that you are being offered. The basis of this 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.

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 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.

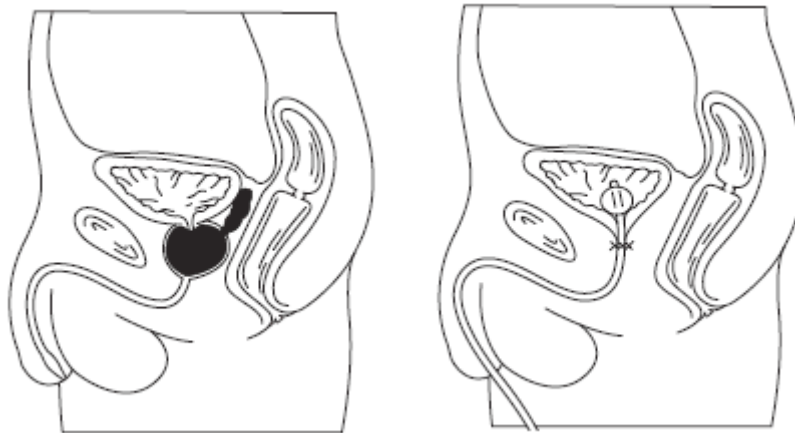


Fig 3 Removing the prostate: before and after the operation

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 a small leak 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 may 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 appropriate cases.

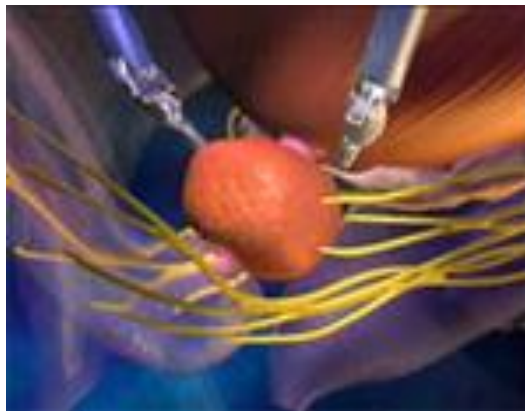


Fig 4 Robot operating arms detaching prostate from surrounding tissue and nerves

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-admission clinic.

You will be admitted to the ward the day before 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.

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. Then you will be ready to go back to the ward.

On the ward, you will be able to 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. Also there will 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 two days after the operation. If you are well enough you will be allowed home the day after the operation.

Your catheter will stay in place for up to two weeks after the operation. You will need to manage 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 lactulose 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.

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, give you blood thinning injections, and make sure that you are managing with the catheter.

Contacting The Christie

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, usually 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.

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 although 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 $<0.1\text{ug/L}$. After this first visit, we will ask to see you every three months for the first year and every six months after that for the next two to five years. Following that, you will be reviewed at 9 months and then yearly.

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. Pelvic floor exercises are also called Kegal exercises, after their inventor.

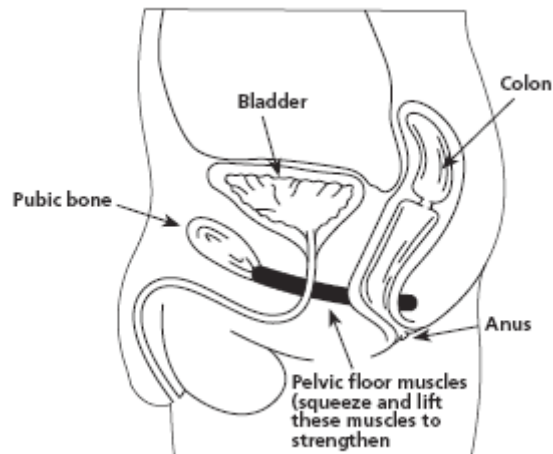


Fig.5 The pelvic floor muscles

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.

Dealing with the problem

The above exercises and treatments for incontinence may take some time to take effect. Anyone who experiences incontinence needs to know how to take action to deal with the problems they experience in the meantime. Some men may also find that their incontinence is not treatable. They too need to know how to deal with leaks and spills.

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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 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

Prostate Cancer Support

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

Tel: 0845 456 0678 www.prostatecancersupport.org

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www.christie.nhs.uk

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