



BON SECOURS HOSPITAL CORK

Robotic Prostatectomy

What do I need to know
before surgery

Patient information leaflet



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What is Robotic Radical Prostatectomy?

This is a minimally invasive surgical procedure to remove your prostate. This procedure involves keyhole surgery with robotic assistance to remove the prostate gland. You can watch an animation that shows how a robot-assisted radical prostatectomy (RARP) is performed. It is available at: <https://patients.uroweb.org/videos/robotic-assistedradical-prostatectomy-video/>

**Why would I be having this done?**

The operation is performed on patients with prostate cancer

What are the benefits of this procedure?

The intention of the operation is to remove the cancer in your prostate. Performing the operation minimally invasively compared to the open surgery approach:

- Reduces blood loss.
- Reduces the length of time strong painkillers are required.
- Reduces length of stay with the majority of patients being discharged the following day.
- Earlier return to normal activities.

What are the risks of having a Robotic Prostatectomy and Pelvic Lymph Node Dissection?

Common

- Impairment of erectile function even if the nerves are preserved.
- Infertility as no semen is produced during an orgasm.
- Temporary difficulties with urinary control.

Occasional

- Urinary incontinence, temporary or permanent, requiring pads or further surgery.
- Discovery that cancer cells already outside prostate needing observation or further treatment.
- Further treatment at a later date if required including radiotherapy or hormonal therapy.
- Lymphatic fluid collection in pelvis if lymph node sampling is performed.
- Port site incisional hernia.

Rare

- Wound infection.
- Bleeding requiring further surgery or blood transfusion.
- Anaesthetic or cardiovascular problems possibly requiring intensive care admission (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death).
- Rectal injury, very rarely needing temporary colostomy.
- Conversion to an open operation.
- Scarring in urethra causing a stricture (narrowing).

Are there any alternatives available?

The alternative treatments are open surgery or laparoscopic (keyhole) radical prostatectomy, active surveillance of Prostate Specific Antigen (PSA) blood test monitoring, radiotherapy, brachytherapy and hormonal therapy.

All of the alternatives will be discussed in clinic before your surgery.

What will happen if I decide not to have treatment?

Localised prostate cancer does not always clinically progress. We cannot reliably predict which cancers will or will not spread.

Aggressive prostate cancers are more likely to spread elsewhere than

non-aggressive cancers.

Some patients may be offered active surveillance for low risk cancers. Your doctor should explain to you whether your cancer is considered low/intermediate or high risk, and whether surveillance is an option.

What sort of anaesthetic will be given to me?

You will be given a general anaesthetic. General anaesthesia is drug induced unconsciousness: it is always provided by an anaesthetist, who is a doctor with specialist training.

Unfortunately, general anaesthesia can cause side effects and complications. Side effects are common, but are usually short-lived: they include nausea, confusion and pain.

Complications are very rare, but can cause lasting injury: the include awareness, paralysis and death.

There is a risk of damage to teeth, particularly caps or crowns and veneers. Your anaesthetist will take every care, but occasionally damage can occur.

The risks of anaesthesia and surgery are lower for those who are undergoing minor surgery, and who are young, fit, active and well. You will be given an opportunity to discuss anaesthetic options and risks with your anaesthetist before your surgery.

If you are worried about any of these risks, please speak to your Consultant or a member of their team

Getting ready for your operation

You will usually be seen in the pre-operative clinic before you are admitted to hospital. Here you will have blood tests, and sometimes a heart trace or a chest X-ray. You will be assessed to see if you are fit for the anaesthetic.

The staff will ask routine questions about your health, the medicine you take at the moment and any allergies you may have. You will be given instructions on eating and drinking before your operation.

In the consulting rooms prior to your procedure, you will be able to discuss the operation with your doctor. You will be asked to sign a consent form to say that you understand the procedure, and what the operation involves.

Before your operation it is advisable that you commence pelvic floor exercises as soon as you are able. This will help once your catheter is removed but should not be done while the catheter is in place.

The day of your operation

- You will come into hospital on the day of your operation.
- Please leave all cash and valuables at home.
- Please bring any medication you take into hospital with you.
- Please bring in toiletries, nightwear and towels.
- You will be asked to remove jewellery - plain band rings can be worn but they will be taped.
- Please leave body piercings at home. False nails and nail polish will also need to be removed if worn.
- If you are on regular medication, you will be told to take this if necessary.
- You will be asked to put on a gown and disposable underwear and some stockings to prevent blood clots.
- A bracelet with your personal details will be attached to your wrist.
- You may be prescribed some medication to take before your operation by the anaesthetist. A member of the nursing staff will give this to you.
- A nurse and porters will take you to the operating theatre.
- Your dentures, glasses or hearing aid can stay with you on your journey to the operating theatre.
- When you arrive in the theatre area, you will be asked to put on a disposable hat.
- You will then be taken to the anaesthetic room and a member of theatre staff will check your details with you.

What should I expect after my operation?

After your operation has finished, you will stay in the theatre recovery suite until you are fully recovered from the anaesthetic, and the anaesthetist is happy for you to return to the ward.

A nurse will check your pulse, blood pressure, breathing and wounds regularly. It is important that if you feel any pain you must tell the nursing staff, who can give you painkillers to help.

Ward staff will provide food and drink once you feel up to it.
The drain is usually removed the following day.

You will have a urethral catheter in usually for up to seven to ten days following discharge depending on your surgeons' preference. Nursing staff on the ward will provide you with specific individual advice before your discharge.

This will include education and advice on:

- Catheter care.
- Changing the bag and adding a night bag.
- Catheter supplies.
- Giving the blood thinning medication by injection (for the next 28 days).
- Removing the stockings post operatively that prevent blood clots.
- General wound care.

You should also be provided with the ward contact number in case of problems or queries.

You should also be provided with a follow up for eight to ten weeks after your surgery to see your consultant. You will also be provided with a PSA request form, please have your bloods taken seven days before your follow up appointment.

When will I be able to go home?

It is possible to go home the day following surgery, although some patients require a couple of days in hospital. Your doctor and nursing team will tell you when you are able to be discharged.

What about activity?

Rate of recovery after surgery is variable between patients. You should be able to mobilise from the day of surgery.

On returning home you should ensure you walk regularly, initially short walks generally around the house, this reduces the risk of blood clots in the legs.

You should not drive for at least four weeks, until you can do an emergency stop and are clinically advised to do so. You will also have to seek advice from your insurance company. Do not do any heavy lifting or strenuous exercise for six weeks after your surgery.

When can I go back to work?

You should plan to have at least two weeks off work, although this will depend on the type of work you do.

Pain relief and medication

The nursing staff will advise you about painkillers before you leave the hospital. Please tell the nurses what painkilling tablets you have at home.

Trial without Catheter (TWOC)**What is a urinary catheter?**

A catheter is a flexible tube that drains urine from your bladder. This is connected to a catheter bag that you empty once it is full.

Why do I need to go home with a catheter?

The type of operation you have had requires you to have a catheter in for seven to ten days this depends on your surgeon's preference. The urethral catheter is important as it allows proper healing of the bladder to the urethra. It should remain on continuous drainage into a catheter bag which is attached to your leg. It is important that the catheter is not under tension and you will be provided with a catheter strap which will help avoid tension.

The ward staff will show you how to look after your catheter at home and they will also provide you with supplies to take home until your catheter is removed.

What is a trial without catheter?

What is a trial without catheter (TWOC) is a medical term that describes the removal your catheter to find out whether you can pass urine without it.

How do I prepare for a TWOC?

You should aim for a regular bowel movements and avoid constipation at the time of the TWOC. If you are having problems with your bowels please see your family doctor (GP) or district nurse. On the day of the TWOC please keep well hydrated.

Where will my TWOC happen?

You will have been given a date and time to attend the hospital by your consultants secretary.

What happens on the day of the TWOC?

You will attend the hospital and your catheter will be removed. A nurse will then ask you to fill your bladder by drinking and ask you to pass urine when you feel ready. You are allowed to go home when you feel comfortable and the nurse is happy that you are able to pass urine.

What about incontinence?

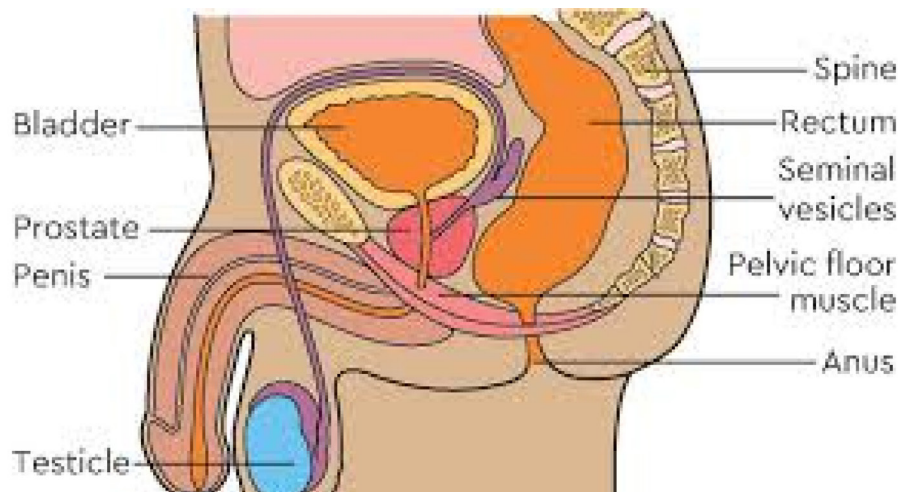
Due to the nature of the surgery many men will experience some degree of urinary leakage following removal of the catheter after the operation. It is usual to need to use pads in the immediate period. 95% of men should achieve complete continence however, this can take up to twelve months in some patients. All patients are encouraged to perform pelvic floor exercises. We will give you a few pads to take home once you have had your TWOC.

Incontinence pads are usually available in your local pharmacy or supermarket. The type of pad you will need to use will vary depending on how much urinary leakage you are experiencing.

Pelvic Floor Exercises and how to do them?

Pelvic Floor Muscles

The Pelvic floor muscles are a layer of muscles that form a support for our pelvic organs. These muscles are attached to our bodies by the pubic bone at the front and again at the base of the spine, (the coccyx) at the back, forming a type of sling or hammock of support.



What do they do?

As well as supporting our pelvic organs (prostate, bladder and rectum), these muscles help us with our bladder and bowel control.

In men these muscles may become weak due to:

- Repeated heavy lifting.
- Prostate surgery.
- Being overweight.
- Long-standing constipation.

- A chronic cough.
- Being generally unfit.
- Long periods of inactivity.

How to exercise your pelvic floor muscles

You can strengthen these muscles by doing simple exercises, which can be done while sitting in your chair or lying on your bed.

As most of us are unaware of these muscles, it is important that we take the time to check that you are exercising them correctly.

Sitting or lying comfortably with your knees slightly apart, concentrate on your pelvic floor muscle. Lift and squeeze at the front as if trying to stop yourself passing urine and do the same with your back passage as if trying to stop yourself passing wind. Make sure you continue to breathe normally throughout the exercises

Try and hold that squeeze for as long as you can, don't worry if you can't hold it too long, this will improve with time. Try to hold your contraction for at least two seconds or longer if you can, then rest for an equal number of seconds.

Repeat the exercise and relaxation again as many times as you can, this will be your starting point to improving your symptoms. We will be aiming for you to hold for ten seconds and repeating it ten times over time. Practice the same number of your previous exercises, this time doing short, fast, strong contractions.

You may wish to check that you are exercising the correct muscles by trying to stop the flow of urine towards the end of your urine stream. Only do this once to recognise the right muscle, as doing it more than this could interfere with your bladder's ability to empty properly. You can also check by placing your fingertips against the skin just behind your scrotum, you should feel the muscle tighten and lift away from your fingertips if you are performing your exercises correctly.

If you are not able to identify the correct muscles to exercise, specialist physiotherapist should be able to help.

Your Exercises

Endurance - your exercises should include as many endurance contractions as you can manage, increasing until you can do ten exercises holding for ten seconds.

Endurance

- I can hold for _____ seconds
- I can repeat _____ times

Power - as many short fast contractions as you can manage, aiming to get to 10.

Power

How many fast contractions? _____ times

These exercises should be done as many times a day as possible. Try to do them six times a day. Don't worry you will improve over time. Remember that pelvic floor exercises take time and effort, practice these exercises regularly and you should see result. When you are comfortable doing the exercises in lying and sitting, try doing them in standing.

Points to remember

- Avoid constipation. Eat a good diet and maintain hydration.
- Restrict your caffeine intake (not your fluid intake) as this can make your bladder problem worse. Remember, caffeine is found in tea as well as coffee.
- Don't get into the habit of going to the toilet 'just in case.' Go to the toilet when your bladder is full.
- Try to maintain an acceptable weight for your height and build, as increased weight puts an increased burden on your pelvic floor.
- Try not to get into the habit of going to the toilet too often, as doing so can reduce your bladder's overall capacity. If you need to go more than every two hours try and retrain your bladder by holding on. Contracting your pelvic floor will help.
- If you are continuing to experience bladder problems, please contact your consultant's secretary for an appointment.

Bon Secours Cork Physiotherapy: 021 - 4801630

Maximising Sexual Function Following Prostate Surgery

Many men will experience problems with their sexual function following radical prostatectomy. There is some evidence that actively trying to rehabilitate the penis following surgery improves the chance of the return of normal erections in the long term. The reasons for this treatment and the available options are explained below.

What is erectile dysfunction(ED)?

Erectile dysfunction (ED) means that you cannot get and/or maintain an erection. In some cases the penis becomes partly erect, but not hard enough to have penetrative sex satisfactorily. In some cases, there is no swelling or fullness of the penis at all. ED is sometimes called impotence.

How common is ED after radical prostatectomy?

In studies the reported incidence of ED after radical prostatectomy varies from between 10 and 90%. It has become normal practice to try and preserve the nerves related to the erection at the time of surgery (nerve sparing) whenever possible as long as cancer cure is not compromised.

How long after surgery does it take for erections to return?

A few men will have normal erections within weeks of surgery. In other men it may take up to three years for erections to return. In some men erections will not return.

Historically patients have been reassured that their erections may improve in time and have not been treated actively unless they are finding the ED troublesome. However, there is increasing evidence that early active treatment to restore erections gives a better long term result.

How does an erection normally occur?

When you are sexually aroused, messages from your brain travel down the spinal cord and through nerves in the neurovascular bundle on either side of the prostate to your penis. Chemicals called 'neurotransmitters' are then released from the ends of the nerves in the penis. Stimulation of the penis can also cause local nerve endings to release neurotransmitter chemicals. The neurotransmitters which are released in the penis cause another chemical to be made called cyclic guanosine monophosphate (cGMP). An increase of cGMP causes the arteries in the penis to dilate (widen). This allows extra blood to flood

into the penis. The rapid inflow of blood causes the penis to swell into an erection.

The swollen inner part of the penis also 'presses' on the veins nearer to the skin surface of the penis. These veins normally drain the penis of blood. So, the flow of blood out of the penis is also restricted, which enhances the erection.

The cGMP is soon converted into another inactive chemical. But, as you remain sexually aroused whilst having sex, your brain keeps sending nerve messages to the penis which makes more cGMP to maintain the erection. When the level of cGMP falls, the blood flow to the penis returns to normal, and the penis gradually returns to the non-erect state.

Why do you get ED following radical prostatectomy?

The traditional teaching has been that post radical prostatectomy ED is caused by damage to the neurovascular bundle (the nerves running between the spinal cord and the penis). These nerves may either be bruised (neuropraxia) or cut at the time of surgery.

It was felt that if the nerves were bruised they would recover and can take up to four years to return to normal function. If they were cut they probably wouldn't.

There is increasing evidence however that the lack of erections themselves leads to further damage to the penis. If the penis does not fill with blood regularly then the cells do not get enough oxygen. This can lead to damage of the erection tissue which leads to the laying down of fibrous tissue (scarring). It is thought that this effect adds to the problem of the nerve damage.

Why should I consider penile rehabilitation?

Studies have shown that if men are encouraged to use methods to obtain an erection soon after surgery then their long term chances of having normal erections are increased.

Suggesting that if the penis is kept healthy with regard to its blood supply at an early stage, then when the nerves heal normal function is more likely to return.

There have now been numerous studies using a variety of methods to obtain erections, all showing a benefit in tackling the problem of ED at an early stage. However, most of the studies have only been on small numbers of men over relatively short periods of time.

What are the principles behind rehabilitation?

The aim of rehabilitation is to get the penis to fill with blood regularly each week. Normally about three times a week. This does not mean you have to make love three times a week!

In studies various methods have been used to achieve a regular erection. These methods have been tested against either doing nothing or the use of something only when there is a desire for intercourse. All methods used seem to give some benefit. At the moment there have been no robust trials looking at one method against another.

What methods can be used to rehabilitate the penis?

There are several different ways to rehabilitate the penis.

These include:

Medication (tablets taken by mouth)

There are three different tablets available to treat ED. They are sildenafil (trade name Viagra), tadalafil (trade name Cialis), and vardenafil (trade name Levitra). They have all been used for rehabilitation after radical prostatectomy.

All the tablets work by increasing the blood flow to your penis. They do this by amplifying the signals from the penile nerves to the penile blood vessels. They only cause erections when you are sexually aroused. In the normal situation you take a dose about an hour before you plan to have sex.

It is thought that by taking these medications on a regular basis (whether you are intending to try and have intercourse or not) helps to bring back your normal night time erections. It is also known that these medications improve the health of the cells lining the blood vessels of the penis. It is thought that the combination of these two factors helps to maintain a healthy penis.

In most men post radical prostatectomy oral medication will not give an erection satisfactory for intercourse. Many men like to combine this approach with a vacuum device.

Injection treatment

With this treatment you are taught to inject a medication called Alprostadil (brand name Caverject) into the base of the penis (intracavernosal injection). This chemical acts directly on the blood vessels of the penis. You do not have to have intact nerves for it to work. The erection will happen after about 15 minutes. (Unlike with tablets, the erection occurs whether or not you are sexually aroused.)

With regard to intracavernosal injections there is data suggesting

that there is an increased percentage of treated patients experiencing return of natural erections compared with patients who receive no treatment.

Urethral medication

Vitaros is a cream that is applied directly to the urethra to treat erectile dysfunction. It contains the active ingredient alprostadil which increases the levels of a naturally occurring chemical in the penis. This causes the blood vessels in the penis to swell and should give you a firmer and longer lasting erection. Vitaros works in 5 to 30 minutes, but it won't give you an erection if you're not aroused.

Another medication that works similarly is MUSE with this method you are taught to place a small pellet into the end of the urethra (the tube which passes urine and opens at the end of the penis). The pellet contains a similar medicine to that used for the injection treatment. The medicine is quickly absorbed into the penis to cause an erection, usually within ten to fifteen minutes. This medication is not as widely available in pharmacies so please let your consultants know if you require an alternative to be prescribed.

Vacuum devices

There are several different devices. Basically, you place a plastic container over your penis. A pump then sucks out the air from the container to create a vacuum. This causes blood to be drawn into the penis and cause an erection. When erect, a rubber band is placed at the base of the penis to maintain the erection. The plastic container is then taken off the penis and the penis remains erect until the rubber band is removed (which must be removed within 30 minutes).

A recent study encouraged men to use the vacuum device to obtain an erection and maintain it for ten minutes a day without using a constriction ring. There was an improvement in penile length and erections in those doing this compared to those people who did not over a six months period. These are not available through the hospital but can be bought from **iMedicare**. The representative for this company can be contacted on **(0044)7887725751**.

You can also talk to the Urology clinical nurse specialist in the hospital if you require more information on these devices.

When would I begin penile rehabilitation?

If you have trouble with your erections before the operation it is worthwhile considering trying out one of the methods of achieving an erection before the operation is performed. This will help you to gain confidence with a method before your surgery. You should discuss this with your consultant.

You can begin your rehabilitation programme at any stage after radical prostatectomy following removal of the catheter. Some men feel that they are not up to sex soon after the operation and want to wait until any continence problems have settled down before they embark on further treatment. There are no hard and fast rules about how soon rehabilitation should start but the general feeling is the earlier the better. We would certainly hope to begin within in three months of the operation.

What would be the rehabilitation regime?

The exact details of the regime will depend on the method of rehabilitation chosen by the individual. Patients can choose which type of erection aid they would like to try. It is fine to try all methods to see which one suits the patient and their partner the best.

It is perfectly possible to use a mixture of the methods. For example you may wish to take an oral medication on a daily basis and use a vacuum device at least three times a week or you may wish to take an oral medication two to three times a week to keep the penis healthy and use a penile injection for intercourse.

What happens if after two years I still cannot get an adequate erection?

If at two years post-operatively you are still not experiencing any erectile function then you can be considered for penile prosthesis. This is when a surgeon inserts a 'rod' permanently into the penis. The most sophisticated type can be inflated with an inbuilt pump to cause an erection. The more basic type keeps the penis rigid all the time.

Orgasmic Function Following Radical Prostatectomy

Many men will experience changes in their orgasm's following radical prostatectomy. It is normal to be able to obtain a sensation of orgasm even if the penis is not erect.

Before surgery most men will ejaculate at the time of orgasm. The ejaculate contains fluid from the prostate, from the seminal vesicles and (providing you have not had a vasectomy) from the testicles. All

these fluids enter the urethra (water pipe) through the prostate and are ejaculated at the time of orgasm. When the prostate is removed there is no way for these fluids to enter the urethra and so the ejaculation is 'dry'. The fluids that are created are absorbed back into the body in a harmless way. It is no longer possible to father children by sexual intercourse following radical prostatectomy.

Following surgery some men will continue to experience their normal orgasmic sensations just without any ejaculation. It is common, especially when general continence is still an issue, that men will leak a variable amount of urine at the time of orgasm. It is sensible to empty the bladder before embarking on sexual stimulation. Urine is sterile and cannot harm your partner. Some men find the orgasm is more intense after surgery others find it is less intense and takes more time happen. Other men have discomfort at the time of orgasm and this tends to settle down with time.

General Health Advice Following Radical Prostatectomy

Although we know that radical prostatectomy is likely to be the primary cause of erection problems following this surgery it is also important to diagnose and treat any other 'risk factors' for ED.

In the general population 8 in 10 cases of ED are due to a physical cause. You may already have had the 'risk factors' for ED before surgery. Diagnosing and treating these risk factors may increase your chance of recovering erectile function. These risk factors all potentially lead to reduced blood flow to the penis.

Like in other parts of the body, the arteries which take blood to the penis can become narrowed, and the blood flow may not be sufficient to cause an erection.

Risk factors include:

- Uncontrolled high blood pressure.
- High cholesterol.
- Diabetes.
- Smoking.
- Being overweight in particular if the waist measurement is increased.
- Having a sedentary life style.

If you haven't had these risk factors checked in the last six months then it is sensible to see your GP or practice nurse to have the relevant tests done. They will also be able to offer advice regarding smoking cessation. There is good evidence that increasing exercise and decreasing weight by 10%, if you are overweight, increases your chance of responding to PDE5 inhibitors and improved erectile function.

Useful Telephone Numbers

Bon Secours Hospital Cork (021) 454 2807

Ward: _____

Bon Secours Cork Physiotherapy: 021 - 4801630

Mr Kevin O'Connor
Consultant Urologist
087 1822212

Prof Philip Cornford
Consultant Urologist
087 7162285