Removing your prostate to treat your prostate cancer
an open radical retropubic prostatectomy

This leaflet gives you information about having surgery to treat your prostate cancer – referred to as an open radical prostatectomy. It explains why this operation may be suitable for you and what you can expect. It also outlines the advantages, possible risks and alternatives to this procedure and the most common questions raised by patients.

More detailed information is available from your consultant or specialist nurse if you wish.

What is the prostate?

Your prostate is part of your reproductive system. It is a plum-sized gland and is only found in men. It lies at the base of your bladder and surrounds your urethra (tube that takes urine from the bladder, along the penis and out of your body). Your prostate produces nutrients for your sperm and makes up part of the milky fluid (semen) when you ejaculate.

The male urinary system. Image supplied by the Prostate Cancer Charity.
What is an open radical retropubic prostatectomy?

‘Radical’ means that this is a treatment for cancer, where we remove the whole of your prostate, rather than just a part of it.

A prostatectomy is an operation to treat localised prostate cancer (cancer that has not spread outside the prostate gland). It is performed under a general anaesthetic, which means you are asleep for the whole procedure.

The operation involves making an incision (cut) of 10–20cm to the lower part of your abdomen (tummy) and removing your prostate gland, seminal vesicles (glands that store semen) and possibly blood vessels, nerves and fat around the prostate. Removing these structures may increase the likelihood of removing all the cancer cells. The urethra (tube that carries urine through the penis and out of the body) is cut during the operation and then re-attached to your bladder.

If your surgeon thinks that the draining lymph nodes may be affected, they may be removed at the same time. This is called a lymph node dissection. Lymph nodes are found throughout the body. They filter tissue fluid (lymph) and contain white blood cells and antibodies, which fight infection.

A prostatectomy is rarely recommended for people over 70 years old and for people with certain other conditions, as the risk of side effects increases with age.

Who will perform the procedure?

This procedure is currently performed by Mr Popert, Mr Cahill, Mr Challacombe and Professor Dasgupta. If you decide to have this operation you will be told the current outcome data from operations performed by your surgeon.

What are the advantages of this treatment?

- The procedure has been used to treat prostate cancer for many years and is the gold standard treatment by which other treatments are compared.
- It may be possible to avoid damaging the nerves that control erections - referred to as a nerve sparing procedure.
- The surgeon is more able to ‘feel’ your tissues or organs than if the operation is performed using keyhole or robotic-assisted surgery. Sometimes it is possible to feel abnormalities even when they cannot be seen. If your prostate feels abnormal, neighbouring tissue that may be affected can also be removed. It is easier to do this during an open prostatectomy. Your consultant or specialist nurse will discuss this with you further.
- Relief from your symptoms if you have benign prostatic hyperplasia or benign prostatic hypertrophy (BPH). These are non-cancerous conditions where the prostate enlarges, constricting the urethra. Removal of the prostate relieves the symptoms of BPH.
What are the alternatives?

An open prostatectomy is just one of the available treatment options. Your doctor will discuss the alternatives below with you if they are appropriate for your grade and stage of cancer:

- **robotic radical prostatectomy**, which is laparoscopic surgery but involves the use of robotic instruments to aid the surgeon.
- **brachytherapy**, where radiotherapy ‘seeds’ are implanted into the prostate to destroy the cancer cells.
- **external beam radiotherapy**, where beams of radiation are used to destroy the cancer cells.
- **active surveillance/monitoring**. In some cases it may be an option not to treat your cancer. This is referred to as active surveillance or monitoring. Some cancers need to be treated more urgently than others, depending on how aggressive they are. If a very aggressive cancer is not treated, it may spread to other parts of the body. Your doctor or specialist nurse will tell you if active surveillance is an option for you, but please do not make any decisions before speaking to your doctor or specialist nurse.

Please ask for our other leaflets for information on these specific treatments.

What else should I consider before surgery?

If you decide to have surgery you should consider whether or not to try to preserve the nerves and blood vessels (“neurovascular bundles”) attached to the side of the prostate. These contribute to normal erections. Although some form of erectile dysfunction is inevitable following a prostatectomy, preserving them makes normal erections following surgery more likely. The erectile function of approximately half of patients returns at some point after surgery, although this could be months or even years afterwards.

However, nerve preservations can only be done if there is no clear sign of cancer at the edge of the prostate next to the neurovascular bundles. Overall, preserving the neurovascular bundles increases the chance of leaving some cancer behind. Your consultant will discuss with you whether to attempt nerve preservation and the risks involved in this.

Men under 60 years old, with good erections before surgery and with the neurovascular bundles preserved during surgery are most likely to recover erectile function after surgery (up to eight out of 10 men). If you have problems achieving erections before surgery, you are more likely to have problems with erections after surgery. Other factors (risk factors) that make erectile dysfunction more likely include high blood pressure, diabetes, obesity, smoking and the extent of your cancer.

You should also be aware that if you are able to achieve orgasm, you will not ejaculate any semen, so you will be infertile. This is because you will no longer have a prostate gland, which produces the milky fluid that combines with your sperm to form semen.
What are the possible risks?
An open radical prostatectomy is major surgery. Your consultant will discuss the risks below with you in more detail, but please ask questions if you are uncertain.

- **problems relating to a general anaesthetic**, such as a chest infection; deep vein thrombosis (DVT); a pulmonary embolus (blood clot in the lung); stroke; or heart attack. If you have any of these problems you may need to stay in the intensive care unit and your recovery will be delayed. You may want to read our leaflet Having an anaesthetic – please ask your nurse for one.
- **infection or hernia** at the wound site.
- **blood loss**. If the bleeding is severe you may need a blood transfusion or another operation.
- **erectile dysfunction** (inability to get or maintain an erection). Some degree of erectile dysfunction is inevitable following any form of radical prostate surgery.
- **urinary incontinence** (inability to control when you pass urine). All forms of prostate surgery result in some degree of urinary incontinence in the short term. By retraining the bladder and performing pelvic floor exercises, continence can be recovered within about six months for most patients. However, depending on the extent of your cancer and other factors, it may take longer or be permanent. You may need to wear pads or have further surgery to treat the problem.
- **very rarely there can be injury to your rectum** (last section of your bowel) caused by the instruments and you may need a temporary colostomy. This is where an opening is made in your large intestine and abdomen, so your stool is collected in a bag attached to the opening on your abdominal wall, bypassing your rectum.
- **delay in leaving hospital**. This is most commonly due to a pelvic haematoma (collection of blood) or a urine leak. A haematoma is managed by bed rest and possibly a blood transfusion. If the join between the bladder and the urethra is loose, it will leak urine that will be collected in the drain. If this happens, the drain is left in place for a few extra days until it stops leaking.
- **scrotal swelling**. If your lymph nodes around your prostate are removed, scrotal swelling can occur. This is where lymphatic fluid and blood pools in the scrotum. This is a short term complication.
- **death**. This is very rare - between three and eight in every 10,000 patients who have this operation die.

It is important to note that you may need further treatment, such as radiotherapy or hormonal therapy later if we find that the cancer has spread outside of your prostate.

If your surgeon thinks the cancer might have spread to your lymph nodes and removes them, tissue samples of the nodes will be examined while you are in theatre. If this confirms that the cancer has spread, the procedure will be abandoned and alternative treatments will be discussed with you when you have recovered from the anaesthetic.

Preparing for your surgery
We will send you a date to come to the pre-assessment clinic before your surgery. You must come to this appointment, as this is when we will assess your suitability and fitness for surgery and anaesthetic. We will carry out a number of tests to make sure that your heart, lungs and kidneys are working properly. You may have a chest X-ray, ECG or electrocardiogram (which records the electrical activity of your heart) and some bloods taken. Your nurse will explain any tests you need.
Your consultant or specialist nurse will also discuss the details of the procedure with you as part of, and before your consent. If you do not come to this appointment, we may have to cancel your surgery. Please see page below for more information on consent.

If you smoke, you should try to stop, as this increases the risk of developing complications, such as a chest infection. Smoking can also delay wound healing. For help giving up smoking, please speak to your nurse or call the NHS Smoking Helpline on 0800 169 0 169.

We will give you special advice if you take aspirin, warfarin, clopidogrel, or any other medication that might thin your blood. Do not make any changes to your usual medicines, whatever they are for, without consulting your specialist first. Please remember to bring all your medicines to hospital with you.

**Coming to hospital**

You will need to come into hospital the day of your surgery and should expect to stay for three to four days.

The anaesthetist will see you the, morning of your surgery, to discuss the anaesthetic. Your specialist nurse will also be on hand to make sure that you have no further questions or concerns.

You will be able to eat and drink as normal the evening before your surgery. However, you must not eat or drink anything for six hours before your surgery (referred to as nil by mouth). This is important because anaesthetic can make you feel nauseous (sick). If you are sick while anaesthetised, your stomach contents could pass into your lungs and cause complications. The nurses in the pre-admission clinic will tell you when you must stop eating and drinking. If you continue to eat or drink after this, your surgery will be cancelled.

**Asking for your consent**

We want to involve you in all the decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This confirms that you agree to have the procedure and understand what it involves. You should receive the leaflet, Helping you decide: our consent policy, which gives you more information. If you do not, please ask us for one.

**On the day of your surgery**

Most men are admitted for their surgery on the day of the procedure either at 7am or 11am in the morning depending on whether they are booked for the morning or afternoon theatre list. You will be told what time to arrive by the admission clerk that books your surgery.

You will be given an enema to give yourself the night before your surgery or the morning of your surgery. An enema is medicine that speeds up bowel movement. This is done to make sure your bowels are empty before your surgery, so you are more comfortable after the procedure. It also simplifies things if your bowel is affected during the surgery.
Once you have opened your bowels you will be asked to have a shower and put on a clean gown and anti-thrombus stockings. These help to prevent blood clots forming in your legs (DVT) during surgery. You can take them off to shower during your hospital stay, but you must keep them on at all other times to help reduce the risk of blood clots. You will be able to remove them when you leave hospital.

You will need to be ready for surgery at least one hour before the scheduled surgery time. You will be taken on your bed to the anaesthetic room, where you will be seen by the anaesthetic nurse and doctors. They may put another drip into your arm or neck to allow them access to your veins during your operation.

Once anaesthetised, you will be taken through to the operating theatre. The whole procedure generally takes about two to four hours.

What should I expect after my surgery?
You will be taken to the recovery room and remain there until the anaesthetic wears off. This may take an hour or two. You will then be taken back to your ward. On the day of the procedure, friends and family members can visit you afterwards.

Your consultant will see you after you have returned to the ward and your nurse has settled you in.

You will wake up with:

- **a catheter**. This is a tube inserted into the bladder through your penis and is attached to a leg bag. This will collect your urine so you will not need to leave your bed to pass urine. We will leave this in place for 10–14 days, to allow your wound between your bladder and urethra to heal. Before you leave hospital, please make sure you are given a date to come back to have it removed.
- **a drain**. This is a plastic tube that will come out of your wound. It prevents blood and urine collecting inside your wound after surgery. It is normally removed the morning after surgery.
- **stitches** closing the wound along your abdomen. These dissolve and do not need to be removed.
- **a dressing** over your wound, which will generally be removed 48 hours after surgery.
- **a drip** to prevent dehydration. You will be able to start drinking clear fluids when you come round from the anaesthetic. The drip is usually removed the day after your surgery.

You may be in pain once you have woken up from the anaesthetic. You may have discomfort bending at the waist and your scrotum or penis may be tender and swollen. We will either give you strong painkillers to treat this or attach you to a machine that allows you to help control your pain. This is called a PCA (patient controlled analgesia) pump. When you are in pain, you can push a button to deliver a small dose of medicine to help relieve your pain. This is generally used until you are able to eat and drink; you will then be able to take tablets to control your pain.

Your penis may appear shorter following surgery because the urethra will be shorter once the prostate has been removed. The urethra is quite elastic and can be stretched out by exercising the penis. This will help restore the length. You will be taught by your nurse specialist how to use a vacuum device to stretch the tissue after the operation.
You will need to remain in bed at first. We will ask you to move your feet and ankles and wiggle your toes to help encourage circulation in your legs. This will also reduce the risk of blood clots in your legs. You should be able to get up and start walking around the morning after your surgery. Please speak to your nurse when you feel ready to do this and he/she will help you.

Leaving hospital

You will able to leave when you:

- can move around as well as you did before you came into hospital
- are able to care for your catheter and your leg bags
- your pain is well-controlled using the appropriate tablets taken by mouth (orally).

You may find it easier if a relative or friend travels home with you.

Before you go home, your prostate nurse specialist will make sure you have:

- a PSA (prostate specific antigen) request form to have your PSA taken at the hospital seven weeks after your operation
- an outpatient appointment date for you to have your catheter removed
- an outpatient appointment for you to see your consultant’s team eight weeks after your operation.

What can I expect when I get home?

You will have had major surgery, so allow yourself plenty of rest. Although you will be able to look after yourself, ideally you should have someone with you for the first few days. It is quite common to have bouts of tiredness after major surgery, so build up slowly to doing your usual tasks.

Some men experience bladder spasms (contractions) caused by the catheter rubbing against the trigone (muscle) inside of your bladder. The spasms result in urine passing down the sides of the catheter or make you have the urge to pass urine, which can be uncomfortable.

You might find after the first few days that you notice some urine bypassing around the sides of your catheter. This is perfectly normal and may happen because your bladder is not used having the catheter tube in place and is irritated by it. Your district nurse will supply you with some pads during this period to keep yourself dry. If you become very uncomfortable, contact your ward or specialist nurse who will give you advice. You may also leak some blood around the catheter when you first open your bowels after the procedure.
You will need to:

- carry out twice-daily catheter care to help reduce the risk of infection. We will show you how to do this before you leave hospital.
- eat a light, soft diet until your bowel movements are back to normal.
- keep taking your pain relief regularly. This will keep it at a constant level in your body, so it will control your pain better.
- take it easy. Do not lift anything heavy or do anything too energetic for example, shopping, mowing the lawn, lifting weights or running, for at least four to six weeks after your surgery. Doing these things may put too much strain on your stitches and could make your recovery take longer.
- give yourself a couple of weeks rest before returning to work. If your work involves heavy lifting or exercise, please speak to your consultant.

Only start driving again when you are able to perform an emergency stop without feeling hesitant. Check with your insurance company to make sure you are covered to start driving again. **If you are still taking painkillers please check with your pharmacist whether it is safe to drive.**

**Looking after your wound**

We will arrange for a district nurse or your GP’s surgery to check on how your wound is healing. The stitches you will have along your abdomen run under the skin and will not need to be removed as they are dissolvable. They usually dissolve in about two weeks.

If you can, take a shower rather than a bath until your wound has healed completely. A bath will soak the wound and make it soggy, which increases the chances of it becoming infected. Rinse any soap thoroughly from your body as this can irritate your wound. Keep it clean and dry at all other times. Please do not use lotions or creams around your wound while it is healing, as this may also increase the possibility of infection.

**Your catheter removal**

Your catheter will be removed by a senior nurse at your outpatient appointment 10–14 days after your surgery. You will not see a doctor at this appointment. The specialist nurse will then monitor you for the next few hours to make sure you are able to pass urine and are not retaining it. This is straightforward, so please do not worry. We may give you antibiotics when the catheter has been removed.

The nurse will also teach you how to do pelvic floor exercises at this appointment and then discharge you back to the care of your district nurse. The district nurse should supply you with some pads to make sure you remain dry in the initial stages after the catheter has been removed.

If you have problems with continence after surgery, regularly practising the pelvic floor exercises will help. Almost all patients have some incontinence when the catheter is taken out, so please do not feel embarrassed. Most patients are pad free three months after their surgery and nine out of 10 are pad free after a year. We recommend that you start the pelvic floor exercises as soon as your catheter is removed and repeat them every day. Your continence should improve with time and persistence with the exercises.
Rarely, some men never regain full control of their continence. If this happens to you, there are many ways to deal with this problem, which your consultant or specialist nurse can discuss with you.

**When can I have sex again?**

You may begin sexual activity again two weeks after your operation, as long as you feel comfortable. You may not be able to achieve an erection in the early stages of your recovery, but you can experience arousal and even climax without an erection.

It will be harder for you to have an erection than before your surgery while you are recovering. How difficult it will be will depend on many things such as:

- the extent of the cancer
- how much of the area and surrounding structures were removed during surgery
- whether your surgeon was able to spare the nerves.

Please make a note of any erections or feelings you have after the surgery and report them to your consulting team when you come to hospital for your follow-up appointment. We can offer you treatment, such as medication, to help restore your erectile function. We may start you on tablets to aid erections after your catheter is removed.

**When will I have a follow-up appointment?**

Your follow-up appointment will be about eight weeks after your surgery. Please make sure your specialist nurse has given you a PSA request form before you leave hospital, as you will need to have a PSA blood test taken two weeks before your follow-up appointment. At your follow-up, your surgeon or a member of his team will give you the histology results (the extent of cancer within your prostate) and your PSA results.

After this you will be seen every three months and will need a PSA blood test taken one week before each appointment.

**What is the cancer outcome following this procedure?**

This is a well-established procedure, having been carried out for the last 25 years.

The success of the procedure is related to your PSA rate, grade of cancer and the stage of your disease. The consultant carrying out your procedure will give you information about our current cancer outcomes.

If you have any further questions, please do not hesitate to speak to your prostate nurse specialist or the ward nursing or medical staff.

If you feel something has not been covered in this information leaflet, please let us know or fill in a comment sheet before being discharged.
Useful sources of information

Prostate Cancer UK provides support and information for men with prostate cancer.
t: 0800 074 8383  w: www.prostatecanceruk.org

Macmillan Cancer Support provides information and support to anyone affected by cancer.
t: 0808 808 00 00  w: www.macmillan.org.uk

UK Prostate Link provides links to quality assessed information about prostate cancer.
w: www.prostate-link.org.uk

Cancer Research UK has a patient information website, with information on all types of cancer and treatment options, as well as a book list for further information.
t: 0808 800 4040  w: www.cancerhelp.org.uk

Contact us

If you have any further questions concerning this procedure please contact Sharon Clovis, Netty Kinsella, Paula Allchorne or Anna Ashfield (prostate cancer nurse specialists).

Please call the hospital bleep operator on 020 7188 3026, and ask for bleep 1005 for Sharon or bleep 2393 for Netty or bleep 0864 for Paula. Alternatively call 020 7188 7339 and leave a message.

Dimbleby Cancer Care at Guy’s and St Thomas’ Hospital offers information and support for patients with cancer, their relatives and friends. They can provide psychological support, complementary therapies and benefits advice. For more information, please call 020 7188 5918 email RichardDimblebyCentre@gstt.nhs.uk or visit one of the drop-in centres:

- Guy’s Hospital – Outpatient Department, Ground Floor, Tabard Annexe (next to the Minor Injuries Unit)
- St Thomas’ Hospital – Lower Ground Floor, Lambeth Wing.
Pharmacy Medicines Helpline
If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.
\[t: \text{020 7188 8748} \text{ 9am to 5pm, Monday to Friday}\]

Patient Advice and Liaison Service (PALS)
To make comments or raise concerns about the Trust’s services, please contact PALS. Ask a member of staff to direct you to the PALS office or:
\[e:\text{020 7188 8801}\text{ at St Thomas’} \quad \quad t:\text{020 7188 8803}\text{ at Guy’s} \quad e:\text{pals@gstt.nhs.uk}\]

Knowledge & Information Centre (KIC)
For more information about health conditions, support groups and local services, or to search the internet and send emails, please visit the KIC on the Ground Floor, North Wing, St Thomas’ Hospital.
\[t:\text{020 7188 3416}\]

Language support services
If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.
\[t:\text{020 7188 8815} \quad \text{fax: 020 7188 5953}\]

NHS Direct
Offers health information and advice from specially trained nurses over the phone 24 hours a day.
\[t:\text{0845 4647} \quad w:\text{www.nhsdirect.nhs.uk}\]

NHS Choices
Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.
\[w:\text{www.nhs.uk}\]

Become a member of your local hospitals, and help shape our future
Membership is free and it is completely up to you how much you get involved. To become a member of our Foundation Trust, you need to be 18 years of age or over, live in Lambeth, Southwark, Lewisham, Wandsworth or Westminster or have been a patient at either hospital in the last five years. To join:
\[t:\text{0848 143 4017} \quad e:\text{members@gstt.nhs.uk} \quad w:\text{www.guysandstthomas.nhs.uk}\]