Surgery: radical prostatectomy

This fact sheet is for men who are thinking about having surgery to treat their prostate cancer. Your partner, family or friends might also find it helpful.

We describe the operation to remove the prostate gland, called a radical prostatectomy, and the possible side effects.

Each hospital will do things slightly differently. Use this fact sheet as a general guide and ask your doctor or nurse for more information. You can also speak to our Specialist Nurses, in confidence, on 0800 074 8383, or chat to them online. Find other ways to get support on page 13.

How does surgery treat prostate cancer?

Surgery for prostate cancer aims to remove the whole prostate and the prostate cancer cells inside it. The aim is to get rid of the cancer completely, while keeping the chances of side effects as low as possible.

You might hear the operation called a prostatectomy or radical prostatectomy. The word ‘radical’ simply means that the whole prostate is removed, not just part of it.
Your surgeon will also take out the seminal vesicles. These are two glands that are connected to the prostate and sit just behind it (see diagram on page 1). They store some of the fluid in semen (the fluid that carries sperm).

Your surgeon may also remove the lymph nodes near your prostate if there is a risk your cancer has spread to them. This is called a pelvic lymph node dissection. Lymph nodes are part of your immune system and are found throughout your body.

The lymph nodes will be looked at under a microscope to see if the cancer has spread. This helps your doctor decide if you need any further treatment. It will also remove any cancer that has spread to the lymph nodes.

Who can have surgery?

You might be offered surgery if your cancer hasn’t spread outside your prostate (localised prostate cancer) and you are generally fit and healthy.

Surgery may also be an option for some men whose cancer has spread to the area just outside the prostate (locally advanced prostate cancer). This will depend on how far the cancer has spread. Your surgeon will remove any tissue around the prostate that contains cancer cells. If your cancer has spread so that it wouldn’t be possible to remove all of it with surgery, other treatments will be more suitable.

If you have surgery for locally advanced prostate cancer, you may also be offered radiotherapy afterwards, occasionally with hormone therapy.

If your cancer has spread to other parts of your body (advanced prostate cancer), surgery won’t be an option. Read more in our fact sheet, Advanced prostate cancer.

A radical prostatectomy is a major operation and, as with all operations, there are risks involved (see page 5). It may not be suitable if you have other health problems that would increase the risks involved with surgery, such as heart disease. Surgery can be an option for older men who don’t have other health problems and are generally fit and healthy. Your doctor will discuss whether surgery is suitable for you.

Overweight men are also more likely to have problems during and after surgery. If you are overweight, your doctor may advise you to lose weight before your operation. Our fact sheet, Diet and physical activity for men with prostate cancer, can help you do this safely.

Other treatment options

If you have localised prostate cancer, other treatment options may include:
- active surveillance – a way of monitoring localised prostate cancer
- external beam radiotherapy – which uses X-ray beams to kill the cancer cells
- brachytherapy – a type of internal radiotherapy
- watchful waiting – a way of monitoring prostate cancer
- high-intensity focused ultrasound (HIFU) or cryotherapy, but these are less common.

Read more in our fact sheet, Localised prostate cancer.

If you have locally advanced prostate cancer, other treatment options may include:
- external beam radiotherapy with hormone therapy (and sometimes with high dose-rate brachytherapy)
- hormone therapy alone
- watchful waiting.

Read more in our fact sheet, Locally advanced prostate cancer.

Surgery can sometimes be used to treat cancer that has come back after radiotherapy (recurrent prostate cancer). If surgery isn’t possible, there are other treatments available. Read more in our booklet, If your prostate cancer comes back: A guide to treatment and support.
Deciding whether to have treatment for slow-growing, localised prostate cancer
If tests show your cancer is likely to grow slowly (low risk prostate cancer), you may be offered active surveillance. This is a way of monitoring slow-growing, localised prostate cancer with regular tests, instead of having treatment straight away.

The aim is to avoid or delay the side effects of treatment. If there are signs the cancer may be growing, you’ll be offered treatment that aims to get rid of the cancer.

If you go on active surveillance, there’s a very small chance that your cancer could spread before being picked up. But as you’ll have regular tests to monitor the cancer, the risk of this happening is very low.

Research involving men with low risk localised prostate cancer has shown that men who go on active surveillance have the same chances of living for 10 years or more as men who choose surgery or external beam radiotherapy.

It’s important to think about this when deciding whether to have treatment straight away or go on active surveillance. Read more in our fact sheets, Localised prostate cancer and Active surveillance.

Unsure about your diagnosis and treatment options?
If you have any questions, ask your doctor or nurse. They can talk you through your test results and your treatment options. Make sure you have all the information you need. You can also speak to our Specialist Nurses.

Getting support
If you need support or someone to talk to before, during or after your treatment, there is support available. See page 13 for more information.

After I’d made up my mind to have surgery, we decided not to question it because we can’t know what would have happened if I had chosen another treatment. Immediately the stress of deciding lifted and we were able to concentrate on what lay ahead.
A personal experience

What types of surgery are there?
There are three types of surgery for removing the prostate. The type of operation you have will depend on lots of things, including what’s available at your hospital or where you are prepared to travel to, and what your surgeon recommends.

Keyhole surgery
There are two ways of doing keyhole surgery (also called laparoscopic surgery or minimally invasive surgery).

Keyhole surgery by hand
Your surgeon makes five or six small cuts in your abdomen (stomach area) and removes the prostate using special surgical tools. These include a thin, lighted tube with a small camera on the tip. The image will appear on a screen so the surgeon can see what they’re doing.

Robot-assisted keyhole surgery
Your surgeon uses similar tools as for keyhole surgery by hand, but they control the tools from a console in the operating room via four or five robotic arms. Although it’s called ‘robot-assisted’, it’s still a surgeon who does the operation. You may hear the equipment called ‘the da Vinci® Robot’.

After I’d made up my mind to have surgery, we decided not to question it because we can’t know what would have happened if I had chosen another treatment. Immediately the stress of deciding lifted and we were able to concentrate on what lay ahead.
A personal experience
Open surgery
Your surgeon makes a single cut in your lower abdomen, below your belly button, to reach the prostate. Sometimes the cut is made in the area between the testicles and back passage (the perineum), but this isn’t very common.

The different types of surgery
Although robot-assisted keyhole surgery is the newest way of doing surgery, the most recent research suggests all three techniques are as good as each other for treating prostate cancer. They also have similar rates of side effects such as urinary problems and problems getting an erection.

The advantages of keyhole surgery, both by hand and robot-assisted, are that you are likely to lose less blood, have less pain, spend less time in hospital, and heal more quickly than with open surgery.

Robot-assisted surgery is not available in all hospitals in the UK because it uses specialist equipment that isn’t available everywhere.

What are the advantages and disadvantages?
What may be important for one person might not be important for someone else. The advantages and disadvantages of surgery may depend on your age, general health and the stage of your cancer.

If you’re offered surgery, speak to your doctor or nurse before deciding whether to have it – they’ll be able to help you decide if it’s right for you.

Take time to think about whether you want to have surgery. There’s a list of questions on page 14 that may help. You can also ask about any other treatments that might be available.

Advantages
• If the cancer is completely contained inside the prostate, surgery will remove all of the cancer.
• The prostate is looked at under a microscope after the operation. This gives a clearer picture of how aggressive your cancer is, whether it has spread outside your prostate (see page 10) and if you need further treatment.
• Your health professionals can get a good idea of whether your cancer was completely removed during surgery (see page 10). Your PSA level should drop so low that it’s not possible to detect it (less than 0.1 ng/ml) at six to eight weeks after surgery.
• If there are signs that your cancer has come back or wasn’t all removed, you may be able to have further treatment (see page 10).
• Some men find it reassuring to know that their prostate has been physically removed, although you will still need to have follow up tests to make sure no cancer cells have spread outside the prostate (see page 9).

Disadvantages
• There are risks involved in having a radical prostatectomy, as with any major operation (see page 5).
• You might get side effects such as erection problems and urinary problems (see page 10).
• You’ll need to stay in hospital for a few days – usually between one and seven days.
• If the cancer has started to spread outside the prostate, the surgeon may not be able to remove all of the cancer (see page 10) and you might need further treatment.
• You won’t be able to have children naturally after surgery as you won’t be able to produce semen, but it’s possible to store sperm before surgery for fertility treatment (see page 12).
What are the risks of surgery?
A radical prostatectomy is a major operation, and as with all major surgery there are some risks involved. These include:
• bleeding during or soon after the operation and possibly needing a blood transfusion, but this is uncommon
• injury to nearby tissue, including the bowel, blood vessels, nerves and pelvic floor muscles
• blood clots in the lower leg that could travel to the lungs (less than two out of every 100 men)
• infection (about one to five out of every 100 men)
• problems caused by the anaesthetic, but serious problems are rare.

Things that can affect how your surgery goes, your risk of side effects, and whether or not you will need more treatment include:
• whether your cancer has spread
• how aggressive your cancer is
• your general health
• your surgeon’s experience and skill.

Research suggests that surgeons who perform a lot of prostatectomies each year get better results and fewer side effects. Your surgeon should be able to tell you how many operations they have done, as well as the results of these operations and the rates of side effects.

You can look at information on surgeons and centres that do radical prostatectomies online. This includes the number of operations they’ve done, and whether they were open, keyhole or robot-assisted. It also includes rates of complications (such as the risks of surgery above) but not side effects.

It’s important to remember that some surgeons operate on ‘higher risk’ patients who could be more likely to have complications (for example, if they are overweight) or do more difficult operations, which can affect their results. You can see the information at www.baus.org.uk

What does surgery involve?

Before the operation
A week or more before your operation you will have a check-up at the hospital, usually with a nurse. This is called a pre-op assessment. You will have some tests and checks to make sure you’re fit enough for the anaesthetic (the drugs that stop you feeling anything during the operation). These can include blood and urine tests, an electrocardiograph (ECG) to check how well your heart is working, a physical examination, and scans such as a chest X-ray.

Your nurse will also ask you about any allergies you have, and you’ll need to bring a list of any medicines you’re taking. You might need to stop taking some drugs, such as warfarin.

Your doctor or nurse may suggest you start doing pelvic floor muscle exercises a few weeks before your operation. These exercises strengthen the muscles that control when you urinate (pee). Starting them before the operation might help you recover more quickly from any urinary problems after surgery (see page 11). We describe the exercises in our fact sheet, Pelvic floor muscle exercises.

On the day of the operation
You will go into hospital on the day of your operation or possibly the day before. An anaesthetist will explain the anaesthetic you will have during the operation, and the pain relief you will have afterwards. You won’t be allowed to eat for about six hours before the operation, although you may be able to drink water or certain other drinks until two hours before. This will be explained to you.

You may be given an enema (liquid medicine) or a suppository (a pellet) to clear your bowels. These are put inside your back passage (rectum).

A nurse will prepare you for your operation. They will put elasticated knee length socks on your legs. This is to reduce the chance of blood clots forming in your legs. You will keep these on until you are moving around normally again.
During the operation
You will have a general anaesthetic so that you’re asleep during the operation and you won’t feel anything. You might also have a spinal anaesthetic so that you can’t feel anything in your lower body afterwards, to make you more comfortable.

The operation usually takes two to four hours but can sometimes take longer.

Keyhole surgery by hand
Your surgeon will make five or six small cuts (about 1cm long) in your lower abdomen (lower stomach area) and a slightly bigger cut (a few centimetres long) near your belly button. They will insert a tube with a small camera on the tip through one of the smaller cuts. The image will appear on a screen so the surgeon can see what they’re doing. Your surgeon will then insert the surgical tools through the other cuts (called ports) to do the operation. They will inflate your abdomen with carbon dioxide gas at the start. This creates space between your organs for their surgical tools to move, and for the camera to get a good view of your prostate.

Your surgeon will take the prostate out through the cut near your belly button and close the cuts with a special type of glue or stitches.

Very rarely, the surgeon may need to switch to open surgery if it isn’t possible to complete the operation using keyhole surgery.

Robot-assisted keyhole surgery
This is similar to keyhole surgery by hand, but the surgeon controls the tools using a console in the operating room.

Open surgery
Your surgeon will make a single cut (about 15 to 20cm long) in your lower abdomen (lower stomach area), below your belly button, to reach the prostate. They will do the operation by hand, and then close the cut with stitches or clips.

Saving the nerves during surgery
There are two bundles of nerves attached to the prostate that help you get erections. Your surgeon will try to save these nerves if it’s possible, depending on where the cancer is. This is called nerve-sparing surgery.

If your surgeon thinks your cancer may have spread to the nerves, they may need to remove one or both of these bundles. This will cause problems getting an erection without medical help (see page 11).

Even if the nerves are saved, it can still take some time for your erections to recover.

Although these nerves are involved in erections, they don’t control feeling in the penis. So even if the nerves are affected or removed you won’t lose any feeling and you should still be able to have orgasms.

Getting organised at home
Before your operation, it helps to get organised at home to make life easier when you leave hospital. You won’t be able to lift heavy things for a while and you will need to rest. You could:
• fill your freezer with food so you don’t need to cook
• do your shopping online
• if possible, arrange to have a friend or relative with you for the first couple of days after you go home in case you need any help
• arrange for people to help with things like cleaning
• if you have pets, put pet food into small containers so you don’t have to lift heavy bags
• get a list of useful phone numbers ready
• have some absorbent (incontinence) pads ready (see page 8)
• make sure you have some comfortable, loose clothes to wear while any soreness settles down.
After the operation
You will wake up in the recovery room. You will have an oxygen mask on, as you will be breathing more slowly than usual while the anaesthetic wears off. You will have a drip in your arm to give you fluids and pain relief, and you will have a catheter in place to drain urine from your bladder (see below). You may also have a thin tube in your lower abdomen to drain fluid from the area where your prostate used to be (the prostate bed). This is usually removed 24 to 48 hours after the operation.

Tell your doctor or nurse if you feel any pain or feel sick. They can give you drugs to help with this. When your doctor or nurse is happy with your progress, you will be taken back to the ward.

Catheter
You’ll have a thin, flexible tube (called a catheter) passed up your penis to drain urine from your bladder while the area heals. The catheter is put in place during the operation, while you’re asleep. It may feel strange or uncomfortable at first and you may feel like you need to urinate all the time. But the catheter should drain all the urine without you needing to do anything, and this feeling usually passes after a few hours.

Most men go home with the catheter in, and it will be removed at the hospital one to three weeks after your surgery. Read more on page 8.

Pain
You will be given pain-relieving drugs after the operation if you need them. These should control any pain you have, but tell your doctor or nurse if you are in any pain. They will find the right type and amount of pain relief for you.

The drugs are usually given into a vein in your arm or hand through a drip (intravenous infusion). You might have a pump so that you can give yourself pain relief without having to wait for someone to bring it to you. There is a limit on the pump so that you can’t give yourself too much medicine by mistake.

After keyhole surgery, you may have some pain in the tip of your shoulder for a few days. This is caused by the carbon dioxide used during surgery. The gas irritates the nerves and this can cause pain. Your stomach may also feel bloated and you might feel some cramping and tightness. It’s usually quite mild and goes away over time.

Swelling
You may have some bruising and swelling in and around your testicles and penis. This might make it uncomfortable to sit on hard surfaces. It shouldn’t last more than a few weeks and may pass much sooner. If you have a lot of swelling, or if it’s getting worse, tell your doctor.

If you have some swelling when you go home, you may find underpants (briefs) give you more support and are more comfortable than loose boxer shorts. You can also buy supportive underwear, such as a jock strap or testicle support, to help control any swelling.

If you had lymph nodes removed during the operation, this can very occasionally cause swelling in one or both legs (lymphoedema). You will be given compression stockings to help encourage the fluid to drain from the affected area if you need them.

Eating and drinking
Your team will let you know when it’s safe to start eating and drinking. You will usually start with sips of water.

Getting out of bed
You will be encouraged to get out of bed and start moving around as soon as you can. This reduces your risk of having a blood clot.

You may be prescribed daily injections for two to four weeks to reduce the risk of blood clots. If you need injections, your nurse will teach you how to inject yourself, or you will be referred to a district nurse who can give you the injections.

You will be able to go home one to seven days after the operation, depending on your recovery and your doctor’s advice.
At first, moving in bed was uncomfortable and sore. But it soon got much easier.

A personal experience

Going home
Some men worry about going home after having lots of support in the hospital – but you’ll have the name of someone in your hospital team to contact if there’s a problem. A district nurse might visit you at home during the first few weeks. Talk to your doctor or nurse about this before your operation.

Looking after your catheter
Before you go home, your nurse will show you how to look after your catheter. The catheter will be attached to a bag that can be worn inside your trousers, strapped to your leg. Make sure the tube isn’t bent or blocked, as this could stop urine draining into the bag.

Reducing the risk of urine infection
The following tips can help prevent urine infections.

- Always wash your hands with warm, soapy water before and after touching your catheter.
- Wash the catheter and the area near the tip of your penis at least twice a day with warm water and unscented soap. Use one wash cloth for this and a different one for the rest of your body. Wipe downwards along the catheter, away from your body, and dry it carefully afterwards.
- Drink plenty of water (about 1.5 to 2 litres, or 3 to 4 pints a day).
- Eat plenty of fibre to avoid constipation (difficulty emptying your bowels) as this can stop the catheter draining properly.

Your catheter will be removed at the hospital one to three weeks after your surgery. This can be uncomfortable but it only takes a few seconds. Your doctor or nurse needs to make sure you can urinate before you go home, so you might need to wait for a couple of hours so they can check.

You may notice some bleeding while the catheter is still in and just after it’s removed. This is quite common and usually stops on its own.

It’s common to leak urine when the catheter is removed, so remember to take some absorbent (incontinence) pads and spare underwear and trousers to the hospital. Close-fitting underwear can help to keep the pads in place and men often find loose trousers most comfortable.

Some hospitals will provide a few absorbent pads. You can get more from pharmacies, chemists, large supermarkets or online. Services vary but your local NHS service may provide some free pads. You may also be able to order them from a supplier without paying VAT.

Surgery support pack
If you’ve decided to have surgery, our Surgery support pack might be helpful. It includes information about the operation and how to manage the side effects of surgery. It also includes a small supply of absorbent pads for you to try, disposable bags for used pads, and wet wipes. The pack is designed to help you prepare for surgery, and to support you in the first couple of days after your catheter is removed. If you’d like to order a Surgery support pack, speak to our Specialist Nurses.

When they took the catheter out I needed a pad straightaway, as a lot of urine was coming out.

A personal experience
Your wound
After keyhole surgery, the cuts are usually closed with a special type of glue, clips or stitches. The cuts heal within a few days and the stitches slowly dissolve and fall out on their own, so they don’t need to be removed.

If you have open surgery, the cut is usually closed with stitches or clips. Some types of stitches need to be removed in hospital or by your GP after one to two weeks.

The scars from your operation will fade over time. The muscles and tissues inside your body also need to heal. This may take several months, and can sometimes take up to a year.

You will need to take it easy for the first couple of weeks after surgery. Gentle exercise around the home and a healthy diet will help your recovery. Light exercise such as a short walk every day will help improve your fitness. If you can, avoid climbing lots of stairs, lifting heavy objects or doing manual work for eight weeks after the operation. Talk to your doctor about when it’s safe to return to your usual activities and go back to work.

It’s safe to masturbate or have sex when you feel ready, there’s no need to wait (see page 11).

Constipation
Bowel habits may take a few weeks to return to normal. You may have no bowel movements for several days after surgery. This is usually caused by the painkillers you’ll be taking.

If this carries on or becomes uncomfortable you may need medicine to help empty your bowels (called a laxative). Your doctor might give you some laxatives to prevent constipation, but if not, ask your pharmacist for some as soon as you start having trouble. It’s important you don’t strain. Ask your doctor, nurse or GP for advice.

Eating high fibre foods (such as wholegrains and fruit), drinking plenty of fluids, and doing gentle physical activity will help. Read more in our fact sheet, Diet and physical activity for men with prostate cancer.

I was constipated and passed a lot of wind. Drinking plenty of fluids and taking a regular walk helped get things moving.

A personal experience

Feeling tired
Some men get fatigue (extreme tiredness) for a few weeks or months after surgery. This should pass with time. Try to eat healthily and be physically active when you feel able to. This can help give you more energy. Read more about ways to manage fatigue in our fact sheet, Fatigue and prostate cancer.

When to call your doctor or nurse
It’s important to tell your doctor or nurse if:
• your bladder feels full or your catheter isn’t draining urine
• your catheter leaks or falls out
• your urine contains blood clots, turns cloudy, dark or red, or has a strong smell
• your wound area or the tip of your penis becomes red, swollen or painful
• you have a fever (high temperature of more than 38ºC or 101ºF)
• you feel sick (nauseous) or vomit
• you get cramps in your stomach area that will not go away
• you get pain or swelling in the muscles in your lower legs.

Your doctor or nurse will let you know if you should go to the hospital.

What happens next?
You will have regular check-ups after your operation – this is called follow-up. These appointments are to check whether your surgery has removed all of the cancer, help you deal with any side effects, and give you a chance to raise concerns and ask questions.
Your check-ups will usually start between six and eight weeks after surgery, and they will usually be every three to six months. Over time you may have these less often and two to three years after your treatment you may start seeing your GP instead of your hospital doctor. Each hospital will do things slightly differently, so ask your doctor or nurse how often you will have check-ups.

**PSA test**
You will have a PSA test a week before your check-up, so the results will be available at the appointment. This is a blood test that measures the amount of prostate specific antigen (PSA) in your blood. PSA is a protein produced by cells in the prostate, and also by prostate cancer cells. The PSA test is a good way of checking if your treatment has worked.

Your PSA level should drop so low that it’s not possible to detect it (less than 0.1 ng/ml) at six to eight weeks after surgery. A rise in your PSA level may suggest that some cancer cells were left behind. If this happens, your doctor will talk to you about further tests and treatment.

**Your prostate**
After your prostate is removed it will be sent to a laboratory to be looked at under a microscope. If you had lymph nodes removed these will be looked at too. This can give a clearer idea of how aggressive the cancer might be and whether it has spread.

Your doctor will discuss the results with you at your first check-up. They may talk about ‘positive surgical margin’ or ‘negative or clear surgical margin’. The surgical margins help your team to know if you will need any further treatment.

- **Positive surgical margin** – this means there are cancer cells on the edge of the tissue the surgeon removed. It suggests that some cancer cells may have been left behind, and you may need further treatment.

- **Negative or clear surgical margin** – this means that the tissue the surgeon removed was surrounded by a layer of normal tissue. It suggests all the cancer was removed.

Read more about follow-up in our booklet, *Follow-up after prostate cancer treatment: What happens next?*

**Further treatment**
If your results suggest some cancer cells may have been left behind or the cancer has come back, you might be offered radiotherapy, on its own or with hormone therapy. You may also be able to take part in a clinical trial. Read more in our booklet, *If your prostate cancer comes back: A guide to treatment and support.*

**Going back to work**
The amount of time you take off work will depend on how quickly you recover, how much physical effort your work involves, and whether you feel ready to go back to work. If you have open surgery, you might need longer to get back to your usual activities than after keyhole surgery. Ask your doctor or nurse about how much time you need to take off.

**Driving**
You will be able to sit in a car as a passenger while your catheter is still in. You may want to avoid long journeys for the first two weeks after the catheter is removed until you are more used to dealing with any problems, such as leaking urine.

There are no official guidelines for how long you should wait before driving. Speak to your doctor about when it’s safe for you to drive. You need to feel you can do an emergency stop comfortably. Check with your insurance company how soon after surgery you are insured to drive.

**What are the side effects?**
Like all treatments, surgery can cause side effects. These affect each man differently and you might not get all the possible side effects.

The most common side effects of surgery are leaking urine (urinary incontinence) and problems getting or keeping an erection (erectile dysfunction). Your risk of getting these side effects depends on your overall health and age, how far the cancer has spread in and around the prostate.
prostate and how likely it is to grow, and your surgeon’s skill and experience.

Worrying about possible side effects can make you feel down. Before your operation, talk to your doctor or nurse about the side effects. Knowing what to expect can help you deal with them. You can also speak to our Specialist Nurses.

**Urinary problems**

**Leaking urine**

Most men can’t control their bladder properly when their catheter is first removed. This is because surgery can damage the muscles and nerves that control when you urinate. These include the pelvic floor muscles, which stretch below the bladder and help support it. The muscle at the opening of the bladder, which normally stops urine leaking, may also be affected.

You might just leak a few drops if you exercise, cough or sneeze (stress incontinence). Or you might leak more and need to wear absorbent pads, especially in the weeks after your surgery.

Your risk of leaking urine depends partly on your age and whether you leaked urine before surgery. For example, older men are more likely to have problems with leaking urine after surgery.

Leaking urine usually improves with time. Most men start to see an improvement one to six months after surgery. But some men leak urine for a year or more and others never fully recover. This can be hard to deal with, but there are things that can help.

Read about ways to manage urinary side effects in our fact sheet, *Urinary problems after prostate cancer treatment.*

**Difficulty urinating**

A few men (less than five out of every 100 men) may find it difficult to urinate after surgery (urine retention). This can be caused by scarring around the opening of the bladder or the urethra (the tube you urinate through). This causes the urethra to become narrow, which is called a stricture. It can happen soon after surgery, or it might develop slowly over time.

Some men find they suddenly and painfully can’t urinate. This is called acute urine retention and it needs treating quickly to prevent further problems. Call your doctor or nurse, or go to your nearest accident and emergency (A&E) department. They may need to drain your bladder using a catheter. Make sure they know you’ve had surgery for prostate cancer. If this happens in the few weeks after your surgery you will need to see a urologist.

**Sexual problems**

**Erection problems**

During the operation, the nerves that control erections may need to be removed or they could be affected. This often causes problems getting or keeping an erection after surgery (erectile dysfunction).

If your nerves were removed, you will need to rely on treatments to get an erection. Even if you had nerve-sparing surgery (see page 6), you may still have problems getting an erection. This is because even though the nerves are left in, they could be affected for a while.

How likely you are to have erection problems will depend on several things, such as:
- your age and weight
- the strength of your erections before surgery
- other health problems such as high blood pressure or diabetes
- any medicines you take
- whether you smoke.

I found using pads reassuring. They kept the urine away from my skin so it didn’t irritate.

A personal experience
After surgery, including nerve-sparing surgery, most men find it difficult to get an erection strong enough for sex. It can take anything from a few months to three years for erections to return and they may not be as strong as before. Some men will always need medical help to get erections, and some men might not be able to get erections even with medical help.

There are treatments available to help with erection problems. If you had nerve-sparing surgery, your doctor may prescribe tablets called PDE5 inhibitors, such as:

- sildenafil (generic sildenafil or Viagra®)
- tadalafil (Cialis®)
- vardenafil (Levitra®)
- avanafil (Spedra®).

Other treatment options include a vacuum pump, injections, cream and pellets.

If you have anal sex and are the active partner you normally need a strong erection, so erection problems can be a particular issue. There are things that can help, such as using a constriction ring along with tablets.

Your doctor may suggest starting treatment for erection problems before surgery or in the first few weeks afterwards. This is known as penile rehabilitation. If you had nerve-sparing surgery this may include tablets, and if you didn’t it may involve a vacuum pump. Even if you aren’t ready to have sex, starting treatment soon after surgery may improve your chances of getting erections later on. But it may not work for every man.

There are specialist services available to support men with erection problems. Talk to your doctor or nurse to find out more.

Read more about erection problems after surgery and ways to manage them in our booklet, **Prostate cancer and your sex life**. The booklet includes a DVD featuring six men talking about dealing with changes to their sex life during and after treatment for prostate cancer. You can also watch these stories on our website at prostatecanceruk.org/real-stories.

You can also read our booklet, **Prostate facts for gay and bisexual men**.

Side effects can be managed and there is lots of help out there. Ask your doctor about available services.

**A personal experience**

**Penis shortening**
Some men notice that their penis is a bit shorter after surgery. Some research suggests that taking PDE5 inhibitor tablets may help to prevent the penis getting shorter, or help it return to its normal length. Using a vacuum pump, on its own or with a PDE5 inhibitor, may also help to prevent shortening and improve erections.

**Dry orgasm**
The seminal vesicles, which make some of the fluid in semen, are removed during surgery. This means you won’t ejaculate any more. You may have a ‘dry orgasm’ instead – where you feel the sensation of orgasm but don’t ejaculate. This may feel different to the orgasms you’re used to.

**Having children**
After your operation, you won’t be able to father a child naturally. You may want to think about storing your sperm before having surgery so that you can use it later for fertility treatment. Ask your doctor or nurse about storing sperm.

**Loss of sensitivity**
If you receive anal sex, a lot of the pleasure comes from the penis rubbing against the prostate. Some men who receive anal sex find their experience of sex changes after surgery.
Dealing with prostate cancer
Being diagnosed with prostate cancer can change how you feel about life. You may feel scared, stressed or even angry. There is no ‘right’ way to feel and everyone reacts differently. There are things you can do to help yourself and people who can help.

How can I help myself?
• Look into your treatment options. Ask your doctor or nurse about any side effects so you know what to expect and how to manage them.

• Talk to someone. It could be someone close or someone trained to listen, like a counsellor or someone in your medical team.

• Set yourself some goals, even if they’re just for the next few weeks or months.

• Look after yourself. Take time out and learn some techniques to manage stress and to relax, like breathing exercises or listening to music.

• Eat healthily. This is good for your general health and may help slow down the growth of prostate cancer, or lower the risk of it coming back after treatment. It can also help with some side effects of treatment. Read more in our fact sheet, Diet and physical activity for men with prostate cancer.

• Be as active as you can. Physical activity may help slow down the growth of prostate cancer. It can also help you stay a healthy weight, which may lower your risk of advanced prostate cancer. And it can help with some side effects. Take things at your own pace and don’t overdo it. Read more in our fact sheet, Diet and physical activity for men with prostate cancer.

You can find more ideas in our booklet, Living with and after prostate cancer: A guide to physical, emotional and practical issues.

Who else can help?
Your medical team
It may be useful to speak to someone in your medical team. They can explain your diagnosis, treatment and side effects, listen to your concerns, and put you in touch with others who can help.

Trained counsellors
Many hospitals have counsellors or psychologists who specialise in helping people with cancer. Ask your doctor or nurse if this is available.

Local support groups
At local support groups, men get together to share their experiences of living with prostate cancer. Some groups have been set up by local health professionals, others by men themselves.

Prostate Cancer UK services
We have a range of services to help you deal with problems caused by prostate cancer or its treatments, including:

• our Specialist Nurses, who can answer your questions and listen, in confidence, to your concerns
• our one-to-one support service, where you can speak to someone who’s had surgery
• our online community, a free forum to talk about whatever’s on your mind.

To find out more about any of the above, visit prostatecanceruk.org/get-support or call our Specialist Nurses on 0800 074 8383.

It helps if you’re active before the operation, but it’s never too late to start. I think being active helped me recover faster.

A personal experience
Questions to ask your doctor or nurse

You may find it helpful to keep a note of any questions you have to take to your next appointment.

Do you think surgery is a good option for me and why?

What type of surgery do you recommend for me? Will you try to do nerve-sparing surgery?

How many of these operations have you done and how many do you do each year?

Can I see the results of radical prostatectomies you’ve carried out?

What pain relief will I get after the operation?

How and when will we know whether the operation has removed all of the cancer?

How often will my PSA level be checked?

What is the chance of needing further treatment after surgery?

What is the risk of having urinary problems or erection problems and what support can you offer me?
More information

**Bladder and Bowel UK**
www.bladderandboweluk.co.uk
Telephone: 0800 031 5412
Impartial information and advice about bladder and bowel problems.

**British Association for Counselling & Psychotherapy**
www.itsgoodtotalk.org.uk
Telephone: 01455 883 300
Information about counselling and details of therapists in your area.

**Cancer Research UK**
www.cancerresearchuk.org
Telephone: 0808 800 4040
Patient information from Cancer Research UK.

**Continence Product Advisor**
www.continenceproductadvisor.org
Unbiased information on products for different continence problems, written by health professionals.

**Macmillan Cancer Support**
www.macmillan.org.uk
Telephone: 0808 808 0000
Practical, financial and emotional support for people with cancer, their family and friends.

**Maggie's Centres**
www.maggiescentres.org
Telephone: 0300 123 1801
Drop-in centres for cancer information and support, and an online support group.

**Penny Brohn UK**
www.pennybrohn.org.uk
Telephone: 0303 3000 118
Runs courses and offers physical, emotional and spiritual support for people with cancer and those close to them.

**Sexual Advice Association**
www.sexualadviceassociation.co.uk
Telephone: 020 7486 7262
Information about sexual problems and their treatments, including erection problems.

About us

Prostate Cancer UK has a simple ambition: to stop men dying from prostate cancer – by driving improvements in prevention, diagnosis, treatment and support.

This fact sheet is part of the Tool Kit. You can order more Tool Kit fact sheets, including an A to Z of medical words, which explains some of the words and phrases used in this fact sheet.

Download and order our fact sheets and booklets from our website at prostatecanceruk.org/publications or call us on 0800 074 8383.

At Prostate Cancer UK, we take great care to provide up-to-date, unbiased and accurate facts about prostate cancer. We hope these will add to the medical advice you have had and help you to make decisions. Our services are not intended to replace advice from your doctor.

References to sources of information used in the production of this fact sheet are available at prostatecanceruk.org

This publication was written and edited by our Health Information team.

It was reviewed by:
- Jane Booker, Macmillan Urology Clinical Nurse Specialist, The Christie NHS Foundation Trust, Manchester
- Declan Cahill, Consultant Urologist, Royal Marsden Hospital, London
- William Cross, Consultant Urological Surgeon, St James’s University Hospital, Leeds
- Christopher Eden, Consultant Urologist, The Royal Surrey County Hospital, Guildford
- Kathy Keegan-O’Kane, Uro/Oncology Clinical Nurse Specialist, Kings Treatment Centre, Royal Derby Hospital
- Our Specialist Nurses
- Our Volunteers.
Donate today – help others like you
Did you find this information useful? Would you like to help others in your situation access the facts they need? Every year, 40,000 men face a prostate cancer diagnosis. Thanks to our generous supporters, we offer information free to all who need it. If you would like to help us continue this service, please consider making a donation. Your gift could fund the following services:

- £10 could buy a Tool Kit – a set of fact sheets, tailored to the needs of each man with vital information on diagnosis, treatment and lifestyle.
- £25 could give a man diagnosed with a prostate problem unlimited time to talk over treatment options with one of our Specialist Nurses.

To make a donation of any amount, please call us on 0800 082 1616, visit prostatecanceruk.org/donate or text PROSTATE to 70004†.

There are many other ways to support us. For more details please visit prostatecanceruk.org/get-involved

† You can donate up to £10 via SMS and we will receive 100% of your donation. Texts are charged at your standard rate. For full terms and conditions and more information, please visit prostatecanceruk.org/terms