

Enlarged prostate

A guide for men concerned about
benign prostatic hyperplasia
(BPH)

Introduction

This booklet is for men who want to know more about a non-cancerous enlargement of the prostate gland, called benign prostatic hyperplasia (BPH). You may have been diagnosed with BPH or you may want to find out more about this common prostate problem. This booklet describes the causes, symptoms, diagnosis and treatment of BPH. You will find a list of medical words used in this booklet on page 31. If you have any questions about anything you read in this booklet, you can call our confidential Helpline on 0800 074 8383.

The following symbols appear throughout the booklet to guide you to sources of further information:



The Prostate Cancer Charity Helpline



The Prostate Cancer Charity publications

If you would like to know more about anything you read in this booklet, you can call our specialist Helpline nurses



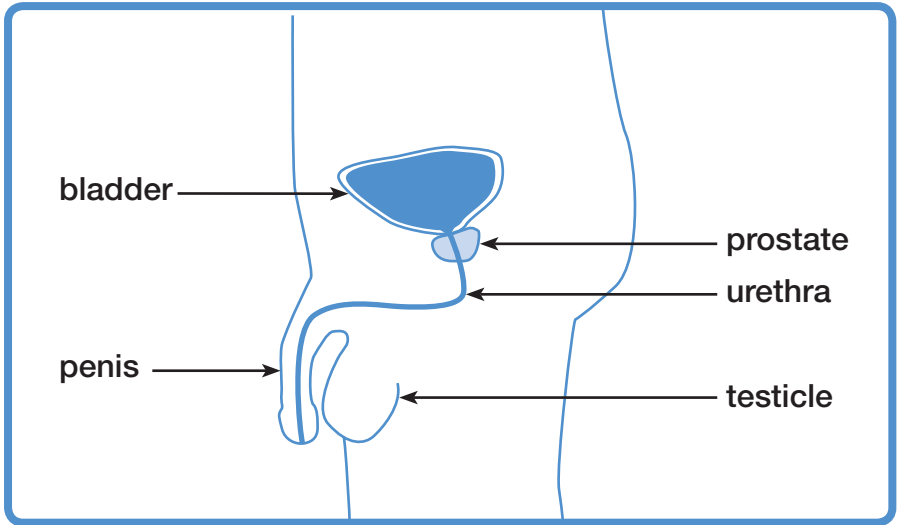
on 0800 074 8383.

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What is the prostate gland?

Only men have a prostate gland. The prostate is usually the shape and size of a walnut. It lies underneath the bladder and surrounds the tube that men pass urine and semen through (urethra). The prostate gland's main job is to make some of the fluid that carries sperm, called semen.



What is benign prostatic hyperplasia (BPH)?

Benign prostatic hyperplasia (BPH) is a common condition that affects many men from the age of about 50 years. About four out of every ten men (40 per cent) over the age of 50 and three out of four men (75 per cent) in their 70s have urinary symptoms that may be caused by BPH.

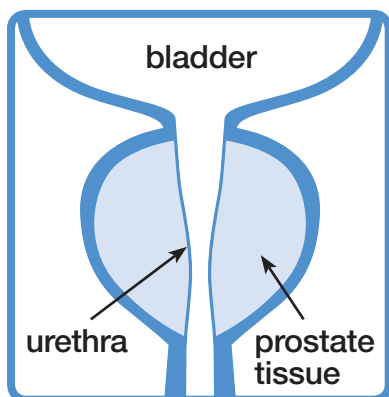
BPH is an increase in the number of non-cancerous cells in the prostate gland:

- Benign – non-cancerous
- Prostatic – to do with the prostate gland
- Hyperplasia – an increase in the number of cells

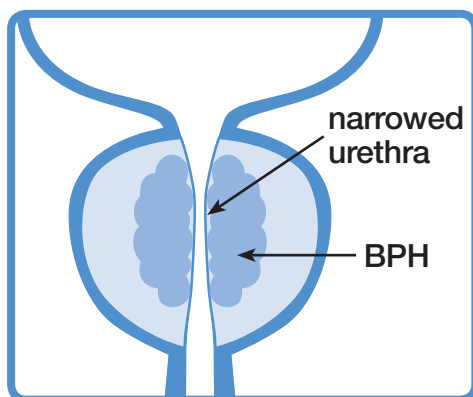
BPH is not a form of cancer.

BPH causes your prostate gland to grow in size as you get older. In some cases if your prostate gets bigger it can cause the urethra to narrow and slow down the flow of urine.

A prostate gland without BPH



A prostate gland with BPH



What causes BPH?

We do not yet fully understand what causes BPH. However, there are two risk factors that we do know about. These are:

Age

Your risk of getting BPH increases as you get older. Many men over the age of 50 will get an enlarged prostate gland but not all of these men will get symptoms.

Hormone levels

Changes in the balance of hormones in your body as you get older may cause cells in the prostate gland to grow.

Other factors

Some studies have also shown that obese men and men who have diabetes may be more at risk of BPH. You may be able to reduce your risk by doing more exercise and reducing the amount of alcohol you drink. However, we need more studies into the causes of BPH to know if, and how, we can prevent it.

What are the symptoms?

Common symptoms of BPH include:

- A weak urine flow
- Needing to urinate more often, especially at night
- A feeling that your bladder has not emptied properly
- Difficulty starting to pass urine
- Dribbling urine
- Needing to rush to the toilet – you may occasionally leak urine before you get there

You may have only a few of these symptoms.

BPH is the most common cause of urinary symptoms in men as they get older. Without treatment, some men may find that the symptoms of BPH slowly get worse. However, these symptoms can be caused by other medical problems that are not related to the prostate. They may also be caused by lifestyle factors and some medicines. You should visit your GP to find out what is causing the problem.

Am I more likely to get prostate cancer if I have BPH?

Having BPH does not put you at greater risk of getting prostate cancer. BPH and prostate cancer begin in different areas of the prostate gland and it is possible to have both BPH and prostate cancer at the same time. In most cases, early prostate cancer does not cause any urinary symptoms. Visit your GP if you are concerned about prostate cancer. You can also call our confidential Helpline on 0800 074 8383.



How might BPH affect my life?

BPH affects men in different ways. Some men are able to cope with their symptoms well and do not need treatment. Other men find that having to stay near a toilet makes work, driving, being outdoors and attending social events very difficult.

For a few men, the symptoms of BPH may improve over time without treatment but for most men the symptoms will stay the same or will get worse. A small number of men may go on to develop acute or chronic retention of urine (see page 8). This is more likely if you are aged over 70, have a large prostate, a raised prostate specific antigen (PSA) blood test or have severe urinary symptoms.

If you are diagnosed with BPH, the doctor at the hospital will look at your test results to see if you are at risk of these complications.

Possible complications of BPH

Acute retention of urine

This is a sudden and painful inability to pass urine. Acute urine retention needs treating straight away, usually at a hospital. The bladder is drained using a tube that is passed through the penis into the bladder (catheter).

Chronic retention of urine

This develops more slowly than acute retention. You may feel that you are not emptying your bladder fully. The first signs for some men include leaking urine at night, wetting the bed or an expanding waistline.

Chronic retention is usually painless but it means that you are not passing all of the urine in your bladder. Because of this your bladder slowly stretches, which can damage the bladder muscle. The urine left in your bladder may cause an infection or bladder stones. Without treatment, over a period of time, the build up of urine can overwork the kidneys and cause them to fail.

How is BPH diagnosed?

There are several tests that your doctor can do to find out whether you have BPH. They will ask you about your symptoms, how long you have had them and whether they are getting worse over time. They will check whether your symptoms could be caused by another health problem, such as diabetes, or by any medicines you are taking, such as anti-depressants. Your lifestyle may also cause urinary symptoms, for example if you often drink a large amount of fluid or drink a lot of alcohol or caffeine.

Your GP may do some of these tests or you may need to visit a doctor who specialises in urinary problems (a urologist) or specialist nurse at the hospital. Ask your GP for more details about which tests you will have and what they involve. You can also call our confidential Helpline on 0800 074 8383.

You may not have all of the following tests. If you are diagnosed with BPH, you may have some of these tests again after treatment to find out how well your treatment is working.

Urine test

You may be asked for a urine sample to check for any infection that could be causing you problems passing urine.

Blood tests

You may be offered a blood test to check that your kidneys are working properly.

You may also have a prostate specific antigen (PSA) test. PSA is a protein produced by cells in the prostate gland. BPH can cause the PSA level in your blood to rise. However, other factors, such as age, infection and prostate cancer may also affect your PSA level. You can find out more about the PSA test by reading

i our booklet, **PSA and beyond: a guide for men concerned about prostate cancer.**

Digital rectal examination

The doctor or specialist nurse may feel the back surface of your prostate gland for any hard or irregular areas and to estimate its size. This is called a digital rectal examination (DRE). If the prostate gland is larger than expected this could be a sign of BPH.

You will usually be asked to lie on your side on an examination table with your knees brought up towards your chest. The doctor or nurse will put on a thin vinyl or rubber glove, lubricate their gloved forefinger with gel and slide it gently into your back passage. Some men find this uncomfortable or embarrassing, but it should not be painful.

Urine flow test

This test involves passing urine into a machine that measures the speed of your urine flow. You will need a full bladder for the test. Your doctor or nurse will tell you how much you will need to drink beforehand. They may also ask you not to go to the toilet for two to three hours before the test.

Ultrasound scan

An ultrasound scan can show whether your bladder is emptying properly. You may have the scan after the urine flow test, described above, when you have finished passing urine. The scan will show any urine that is left in the bladder.

Symptom check

Your doctor or specialist nurse will ask you about your symptoms and how they are affecting your life. To help you explain your symptoms to your doctor, you might like to think about how often you have experienced each of the following symptoms over the last month. There is a space below for you to write notes by each symptom.

- A sensation of not having emptied your bladder after you have finished passing urine

- Needing to go again within two hours of passing urine

- Stopping and starting while passing urine

- Finding it difficult to wait before passing urine

- Having a weak stream of urine, compared to when you were younger

- Needing to push or strain to start passing urine

- Getting up during the night to pass urine

Diary

Your doctor or specialist nurse may ask you to keep a diary for a few days to measure how much fluid you are drinking, what type of drinks you are having (eg water, alcohol), how much urine you pass and how often. This can be helpful, particularly if you have to get up a lot during the night to pass urine. The diary may highlight what may be causing your symptoms and will help your doctor find the best treatment for you.

Other tests

There are further tests that you may have to find out what is causing your symptoms. You may not need to have these if your other test results were clear.

Bladder pressure test

This test is not commonly used but you may need it if your other test results do not give a clear diagnosis or if your symptoms have not improved after surgery. The test, called a urodynamics test, can show how well your bladder is working. Thin tubes are passed into your bladder through your penis and into your back passage (rectum). These measure the pressure in your bladder, abdomen and urethra while your bladder is filled with a clear liquid and again as you pass urine.

Flexible cystoscopy

This is not a routine test but you may have it if your other test results do not give a clear diagnosis. You may also have this test if your urologist suspects that you have a narrowing in the urethra or bladder neck (stricture) caused by prostate surgery or injury to your urethra.

A cystoscopy lets the doctor or specialist nurse see whether there are any blockages or abnormal tissue in your urethra or bladder. You will be given some local anaesthetic to numb the urethra and then the doctor or specialist nurse will pass a thin tube through your penis into your bladder. The tube has a light at the end to help them see clearly. It may have an eye piece for them to look through or a camera on the end so that they can see the urethra and bladder on a screen. A clear fluid is flushed into the bladder to give them a better view.

What are my treatment options?

If you are diagnosed with BPH, your doctor or specialist nurse will look at your test results together with your medical history and personal preferences and recommend the best type of treatment for you. If one type of treatment is no longer controlling your symptoms or if you are not happy with the side effects you are getting, your doctor or specialist nurse may suggest another type of treatment.

There are three main types of treatment for BPH:

- Watchful waiting
- Medicines
- Surgery

Watchful waiting

If your symptoms are not affecting your quality of life and there are no complications, the best approach may be to wait and see how your condition develops. BPH usually develops slowly and your symptoms may not get any worse.

Mild symptoms may be relieved by making some simple changes to your lifestyle, such as:

- **Avoiding alcohol and caffeine**

Alcoholic drinks or drinks containing caffeine, such as tea, coffee or cola, can make you need to pass urine more often.

- **Drinking less in the evening**

Try to reduce the amount you drink in the evening and avoid drinking anything for two hours before you go to bed. This will reduce the chance of you needing to get up in the night to pass urine. Make sure you are still drinking enough fluid earlier on in the day. You should aim for two litres (three to four pints) of fluid a day.

- **Emptying your bladder**

Go to the toilet before long journeys or when you know you will not be able to reach a toilet easily.

- **Double voiding**

This involves waiting a few moments after you have finished passing urine before trying to go again. It can help you to empty your bladder properly. Take care not to strain or push.

- **Checking your medicines**

Check with your doctor whether any medicines you take may be making your urinary symptoms worse, such as anti-depressants or decongestants.

- **Eating more fruit and fibre**

This will help you to avoid getting constipation, which can put pressure on the bladder.

- **Bladder retraining**

There are some techniques that can help you to hold on for longer before going to the toilet. Ask your doctor or specialist nurse for more information.

Medicines

If lifestyle changes are not enough to improve your quality of life, medicines can help to control your symptoms.

The main types of medicine are:

- Alpha-blockers
- 5-alpha-reductase inhibitors
- Combination treatment

Alpha-blockers

These medicines relax the muscles surrounding the neck of the bladder and in the prostate, making it easier to pass urine.

Alpha-blockers can help to control symptoms in around two thirds (66 per cent) of men. Symptoms may start to improve within 48 hours but you may need to take them for at least a month before they have a full effect. For most men, alpha-blockers continue to work for several years.

If after one or two months your symptoms have not improved, alpha-blockers are unlikely to help you and your doctor will recommend another treatment.

There are several alpha-blocker medicines available. The most common ones are called:

- Tamsulosin (brand names Flomaxtra, Bazetham, Contiflo, Diffundox, Omnic, Stronazon, Tabphyn)
- Alfuzosin (brand names Xatral, Besavar)
- Doxazosin (brand names Cardura, Doxadura)

All of the alpha-blocker drugs work in the same way and are equally effective at controlling symptoms of BPH. You will usually take them as tablets, once a day, by mouth.

Like any medicine, alpha-blockers can cause side effects. These vary from person to person and there is no way of knowing which of these you will get or how bad they will be. Read the information leaflet that comes with your medicine for more information or speak to your doctor, specialist nurse or pharmacist.

Possible side effects include:

- Headaches
- Dizziness when you stand up
- Dry mouth, diarrhoea and feeling sick (nausea)
- Loss of energy
- Congestion in the nose
- Dry ejaculation – you may pass little or no semen when you orgasm. This can affect around one in 50 men (two per cent) taking tamsulosin. We do not know how many men taking the other alpha-blockers listed above will experience this side effect.

5-alpha-reductase inhibitors

These medicines can shrink the prostate gland by up to a third (20 to 30 per cent). This takes pressure off the urethra and makes it easier to pass urine.

There are two 5-alpha-reductase inhibitor medicines available:

- Finasteride (brand name: Proscar) taken as a tablet once a day.
- Dutasteride (brand name: Avodart) taken as a capsule once a day.

They can take up to six months to work fully but the treatment is effective in the long-term. Studies show that men continue to see improvements in symptoms up to ten years after starting treatment.

Both finasteride and dutasteride reduce the risk of acute urinary retention and the need for surgery.

These medicines can cause side effects in some men. These effects are mainly linked to sexual function and are most common during the first year of treatment. Possible side effects include:

- Less desire for sex (reduced libido)
This affects two or three out of every 50 men taking the medicine (four to six per cent of men).
- Problems getting and keeping an erection (erectile dysfunction)
This affects three or four out of every 50 men taking the medicine (six to eight per cent).
- Ejaculating less semen during orgasm
This affects up to two out of every 50 men (two to four per cent).
- Breast enlargement or tenderness
This affects one out of every 100 men (one per cent of men).

Your doctor, specialist nurse or pharmacist can give you more information about side effects of the 5-alpha-reductase inhibitor you are taking. Your medicine will also come with an information leaflet.

These medicines can be harmful for pregnant women so if your partner or anyone in your family is pregnant they should avoid handling broken tablets or capsules. You may need to use a condom if there is a chance your partner could become pregnant.

Finasteride and dutasteride reduce the amount of PSA in your blood and so can mask any abnormal rises in PSA. If you have a PSA test, always tell your doctor or nurse that you are taking a 5-alpha-reductase inhibitor. They will need to double your PSA test result to get an accurate idea of what your PSA level would normally be.

Combination treatment

For some men, taking both an alpha-blocker and a 5-alpha-reductase inhibitor at the same time works better at relieving symptoms and reducing the risk of complications than taking either drug on its own.

Combination treatment may work best in men who have symptoms that affect their quality of life and have a particularly large prostate gland or a PSA level of more than 4 ng/ml.

A disadvantage of combination treatment is that you may get side effects from both medicines. Because alpha-blockers work best over a shorter period of time, men taking both medicines may be able to stop taking the alpha-blocker after nine months to a year without it affecting the success of the overall treatment.

Herbal remedies

Some men find that herbal remedies, such as saw palmetto and red stinkwood (African plum) help to control their BPH symptoms. However, research into these remedies has shown differing results.

Some studies have shown that they may improve symptoms for an average of two months. Other studies have shown that they have no effect on symptoms. We need the results of larger studies before we can recommend these complementary medicines as treatments for BPH.

If you notice changes in your urinary habits, visit your GP in the first instance and always tell your doctor or nurse if you are taking any kind of complementary medicine.

Surgery

If medicines do not control your symptoms, or if you risk developing complications, your doctor may recommend surgery.

Surgery involves removing part of your prostate gland. There are different types of operations available, including:

- Trans-urethral resection of the prostate (TURP)
- Holmium laser enucleation of the prostate (HoLEP)
- Photoselective vaporisation of the prostate (PVP)
- Bladder neck incision (BNI)
- Open prostatectomy
- Minimally invasive surgery, such as TUNA or TUMT

Trans-urethral resection of the prostate (TURP)

Trans-urethral resection of the prostate (TURP) is an operation to remove the inner parts of the prostate gland that have overgrown and are blocking the tube that you pass urine through (urethra). It is the standard surgical treatment for BPH.

Who may benefit from TURP?

TURP is the most common type of surgery for treating BPH. It is most suitable if you have moderate to severe urinary symptoms and/or you are not getting enough relief from medication.

What are the advantages and disadvantages?

Advantages:

- The operation is widely available across the UK.
- It improves the flow of urine and quality of life.
- It has a long-lasting effect.

Disadvantages:

- All operations carry risks and your surgeon should explain these to you before you have a TURP.
- You may need to stay in hospital for a few days after the operation.
- The risk of side effects increases with the size of your prostate gland (see page 23 for details of possible side effects).
- At some point you may need another operation. About one in ten men (ten per cent) will need another operation after ten years.
- Between two and five out of every 100 men (two to five per cent) who have a TURP need to have a blood transfusion.

What does the operation involve?

Preparing for the operation

It is common to be asked to attend a pre-admission clinic at the hospital about two weeks before your operation. If you are taking any medications, it is useful to take a list of these with you.

Your specialist team will make sure that the operation is suitable for you and that you are fit enough to have an anaesthetic. They will also explain the operation and answer any questions you may have. You will be told when you need to go into hospital. This may be the day before your operation or on the day itself.

On the day of the operation

The doctor will answer any further questions you may have. The specialist who is going to give you your anaesthetic (an anaesthetist) will tell you whether you are going to have a spinal anaesthetic, so that you do not feel anything below your waist, or a general anaesthetic so that you are asleep throughout the operation.

You may be asked not to eat or drink for six to eight hours before the operation. You may also be asked to wear special stockings that help to prevent blood clots forming in your legs during the operation.

The operation

The surgeon starts by passing a thin metal tube into the urethra through your penis. There are no cuts made to the outside of the penis. The surgeon passes an electrically-heated wire loop through the tube and uses it to remove small pieces of prostate tissue. Once the prostate tissue has been removed there is a clear passage for the flow of urine. The pieces of prostate tissue are sent to the laboratory to be checked for any abnormal cells. The operation takes between 30 minutes and an hour.

During the operation your bladder is flushed with a fluid to clear away the small pieces of prostate tissue that have been removed during surgery. The fluid is clear and allows your surgeon to get a good view of the prostate.

Very occasionally, if this fluid enters your bloodstream, it can upset the salt balance in your blood and may cause breathing problems, sickness and confusion. This is a temporary condition known as TUR syndrome. If you have any of these symptoms after the operation, tell your specialist team straight away.

TUR syndrome can affect between one and two in every 100 men (one to two per cent of men) who have a TURP but it is rarely severe. Some recent studies have shown that a newer method of performing TURP, called a bipolar TURP, may reduce this risk altogether. Ask your specialist team which kind of procedure you are going to have.

At the end of the operation a tube (catheter) is passed through the penis into the bladder to allow urine and any loose prostate tissue to pass out of the body. For the first 12-18 hours after the operation the tube is also used to flush a salt water fluid (saline) through your urethra and into your bladder, to remove any blood clots. You may notice the fluid draining into your catheter bag is quite red at first but over time this will start to clear.

Sometimes the catheter can cause discomfort in the penis or bladder spasms. If you experience this, it is important to let your nurse know so that you can be given medication to help relieve your discomfort.

What happens afterwards?

When your urine is clearer, usually two to three days after the operation, your nurse will remove the tube. The nurse will check that you are passing urine easily before you go home.

Most men notice that their urine flow improves immediately after the operation though some men may find it uncomfortable to pass urine at first. This may be due to the catheter or swelling from the operation.

A small number of men find that they cannot pass urine at all after their catheter has been removed. If this happens, you will need a new catheter put in for about 24 hours. Most men are able to pass urine normally once this catheter has been removed.

It may take between four and eight weeks to fully recover from a TURP. During this time you should avoid strenuous activity and heavy lifting. Your doctor will be able to tell you when you are fit enough to return to work and start driving.

If you have an active sex life you should wait for about two to three weeks after the operation, or until you feel fully recovered, before you have sex. However, if you are concerned about this, your specialist team can give you support and information. You can also call our confidential Helpline on 0800 074 8383.

You will have a follow-up appointment a few months after your operation to check on your symptoms.

What are the side effects of TURP?

You may get some side effects from the operation. The most common ones are described below. Your specialist team can give you more information about these. You can also call our confidential Helpline on 0800 074 8383 to speak to a specialist nurse.

Problems passing urine

At first some men find that they urinate more often and sometimes urgently but this usually improves over time. Speak to your specialist team if you continue to experience this problem.

Some men find that they may leak urine when they cough, sneeze, laugh or exercise. This is called stress incontinence and can happen to around two in every 100 men (two per cent) after a TURP.

Your specialist team can give you advice on pelvic floor exercises that can help to improve your bladder control, or you can call our confidential Helpline on 0800 074 8383.

You may notice blood in your urine for a couple of weeks after your operation. Often the urine clears and then you see a small amount of blood five to ten days after your operation. This is normal and your specialist team will tell you what to expect and what to do if you have any problems.

There is also a small risk of a urine infection. If you develop a high temperature or your urine is smelly or cloudy or you have a burning sensation when you urinate, contact your GP.

Scar tissue from the operation can narrow the urethra or bladder neck, slowing down the flow of urine. This affects nearly four out of every 100 men (four per cent of men) who have a TURP. The scar tissue can be removed with a simple operation.

Sexual problems

After a TURP, you may notice that you pass little or no semen when you orgasm. Instead, the semen passes into your bladder when you orgasm and is passed out of the body the next time you pass urine. This may feel quite different to the orgasms you are used to. It is called a retrograde or dry ejaculation and happens because the neck of the bladder may have become wider during the operation. It affects up to seven out of every ten men (65 to 70 per cent of men). Men who have dry orgasms may not be able to father children through sex but this should not replace the use of contraception.

Up to seven out of 100 men (seven per cent) may have problems getting an erection after TURP. However, if you have good erections before the operation, you may be less likely to have problems afterwards.

Holmium laser enucleation of the prostate (HoLEP)

This operation is similar to a TURP but uses a laser to remove pieces of the prostate. The surgeon uses a high powered holmium laser to remove two or three pieces of the prostate gland that are blocking the urethra. These pieces pass into the bladder and are then removed with a different instrument. The pieces of prostate tissue are sent to the laboratory to be checked for any abnormal cells.

You will either be asleep during the operation (general anaesthetic) or you may be awake but unable to feel anything in the area being operated on (spinal anaesthetic). After surgery you will have a catheter to drain urine from your bladder for 12 to 24 hours afterwards. Before you go home your nurse will remove your catheter and will check that you are passing urine easily.

Advantages of HoLEP include:

- A quicker recovery and shorter stay in hospital than TURP (one to two days).
- Minimal risk of TUR syndrome (see page 21).
- It may be more suitable than TURP for men who are taking medicine to prevent their blood clotting (anti-coagulants).
- It is suitable for men with large prostates.
- The holmium laser can also be used to treat bladder stones, if present.
- There is less blood loss and therefore you are much less likely to need a blood transfusion.

Disadvantages of HoLEP include:

- It is a newer treatment than TURP so we do not have as much information about its long term effectiveness and possible side effects.
- The operation takes longer than TURP.
- The operation is not currently as widely available as TURP.
- At some point, you may need another operation.

Possible side effects of HoLEP include:

- Temporary pain when passing urine (dysuria) This affects around one in ten men (ten per cent of men).

- Blood in your urine (haematuria) for a short time after treatment.
- Dry ejaculation. Up to eight out of ten men (75 to 80 per cent of men) have retrograde ejaculation, where semen passes into the bladder during orgasm (see page 24).
- Difficulty getting or maintaining an erection (erectile dysfunction). The likelihood of this is similar to a TURP (see page 24).
- Needing to go the toilet urgently, sometimes leaking before you get there. This usually settles down over time.
- A urine infection, usually treated with antibiotics (see page 24).

Photosensitive vaporisation of the prostate (PVP)

You may also hear this treatment called ‘GreenLight™’ laser surgery. This is where the surgeon uses a laser to destroy (vaporise) the prostate tissue that is blocking the urethra. Another very similar but less common treatment is Holmium laser ablation of the prostate (HoLAP). This is not the same as HoLEP (see page 24)

You will either be asleep during the operation (general anaesthetic) or you may be awake but unable to feel anything in the area being operated on (spinal anaesthetic). After surgery you may have a catheter to drain urine from your bladder for 12 to 24 hours afterwards.

Advantages of PVP include:

- A quicker recovery and shorter stay in hospital than after TURP. You may not need to stay in hospital overnight.
- Minimal risk of TUR syndrome (see page 21).
- It causes less blood loss than TURP and therefore you are much less likely to need a blood transfusion.
- It may be more suitable for men who are taking medicine to prevent their blood clotting (anti-coagulants).

Disadvantages of PVP include:

- It is a newer treatment than TURP so we do not have as much information about its long term effectiveness and possible side effects.
- It destroys the prostate tissue, so it cannot be checked for signs of prostate cancer.
- At some point you may need another operation after PVP. Short term results suggest that between two and seven men (two to seven per cent) will need retreatment after two years.

We do not have as much information about PVP but possible side effects may include:

- Temporary pain when passing urine (dysuria) and blood in urine (haematuria)
- Needing to go the toilet urgently, sometimes leaking before you get there. This usually settles down over time.
- Experiencing dry ejaculation (see page 24).
- A urine infection, usually treated with antibiotics (see page 24).
- A build up of scar tissue around the neck of the bladder.

Bladder neck incision (BNI)

If you have a small prostate gland but you are still experiencing urinary symptoms, your urologist may recommend a bladder neck incision. This is similar to a TURP but is a simpler operation and has a shorter recovery time. Small cuts are made in the neck of the bladder to allow urine to flow more freely. Side effects include:

- temporary pain (dysuria) and frequency passing urine
- blood in urine (haematuria)
- experiencing dry ejaculation (see page 24). This affects around four in ten men (40 per cent)

Open prostatectomy

This is not commonly used to treat BPH but you may have an open prostatectomy if you have a very large prostate (80 to 100 ml) or if you have other medical problems such as large bladder stones.

The prostate gland is removed through a cut in the abdomen under general anaesthetic. You will need to stay in hospital, usually between five and seven days, and you may need several months to recover fully.

Possible side effects include:

- Leaking urine when you cough, sneeze or move quickly (stress incontinence). This affects up to one in ten men (ten per cent).
- Dry ejaculation, where semen passes into the bladder during ejaculation. This affects around eight out of ten men (80 per cent).
- Scar tissue from the operation causing the urethra or bladder neck to narrow, slowing down the flow of urine. This may affect one in 50 men (two per cent).
- Difficulty getting or maintaining an erection (erectile dysfunction).

Minimally invasive surgery

There are several forms of less invasive surgery. These are not widely available across the UK and doctors are still reviewing the benefits and risks of these treatments. Two of the most common alternatives are:

Trans-urethral needle ablation (TUNA)

TUNA uses radio-frequency energy to heat and destroy prostate tissue. You can have this treatment as an outpatient, so you do not need to stay overnight in hospital. As with most medical treatments, TUNA has a risk of side effects. Your specialist team will be able to provide you with more information on whether this treatment is suitable for you.

Trans-urethral microwave therapy (TUMT)

This procedure uses microwave heat to shrink the prostate tissue. As with most medical treatments, TUMT has a risk of side effects. Your specialist team will be able to provide you with more information on whether this treatment is suitable for you.

What if I am not able to have surgery?

If surgery is not suitable for you, your specialist team may recommend a catheter to drain urine from your bladder. The catheter may be permanent or temporary.

Your specialist team will show you how to insert a temporary catheter yourself. You will need to insert the catheter several times a day to drain urine from your bladder out through the penis. This is called clean intermittent self-catheterisation (CISC).

A permanent catheter drains urine out of the body, either through the penis or through the wall of your abdomen above your pubic bone. If you have a catheter that drains urine out through the penis then this may interfere with your sex life. Your doctor or specialist nurse will be able to discuss this with you. There is also a greater risk of getting an infection than with a temporary catheter.

Questions to ask your doctor or specialist nurse

What tests will I need to have?

Which treatment for BPH would be most suitable for me?
And why?

What are the possible side effects of the treatments?

How long can I take to decide which type of treatment I want?

How will BPH affect my quality of life?

Glossary

Catheter

A thin hollow tube that is used to drain urine from the bladder out of the body.

DRE

Digital rectal examination. The doctor or nurse feels the surface of the prostate gland with a gloved finger inserted into the back passage (rectum).

GP

General practitioner. A doctor who deals with a range of medical problems in people of all ages. Also called a family doctor.

LUTS

Lower urinary tract symptoms. Problems passing urine. LUTS are common in older men and have several possible causes.

PSA

Prostate specific antigen. A kind of protein, called an enzyme, which is produced by the prostate gland. It is normal to find some PSA in a man's blood stream.

Retrograde ejaculation

A possible side effect of some treatments for prostate problems. Passing little or no semen on orgasm. Instead, the semen passes into the bladder and is passed out of the body the next time you pass urine.

Urethra

The tube that carries urine from the bladder, and semen from the reproductive system, through the prostate and penis to the outside of the body.

The Prostate Cancer Charity

The Prostate Cancer Charity is the UK's leading charity working with people affected by prostate cancer. We fund research, provide support and information, and we campaign to improve the lives of men with prostate cancer. Our vision is of a world where lives are no longer limited by prostate cancer.

Free and confidential Helpline

If you have any questions about prostate cancer or other prostate problems call our confidential Helpline to speak to a specialist nurse.



Free and confidential Helpline
0800 074 8383*
Mon - Fri 10am - 4pm, Wed 7pm - 9pm

You can also send your questions to our specialist nurses by using our Helpline email contact form.

Visit www.prostate-cancer.org.uk and click on 'support' for details of how to contact the Helpline.

*Calls are free of charge from UK landlines. Mobile phone charges may vary. Calls may be monitored for training purposes. Confidentiality is maintained between callers and The Prostate Cancer Charity.

Other leaflets on prostate problems can be ordered free of charge from The Prostate Cancer Charity:

i Know your prostate: a guide to common prostate problems

A booklet for anyone who wants to know more about the prostate gland and prostate problems.

i PSA and beyond: A guide for men concerned about prostate cancer

A booklet for men who are thinking about having a PSA test or want to know more about PSA.

i Prostatitis

A booklet for men who want to know more about the different types of prostatitis, including their causes, symptoms, diagnosis and treatment.

To order these publications call our **Helpline on 0800 074 8383** or email us at **literature@prostate-cancer.org.uk**.

You can also download all of our publications from our website at **www.prostate-cancer.org.uk**.

More information

The following organisations can give you support and information on BPH and other prostate problems:

www.medicines.org.uk

For information on medicines, including details of how to get guides in large print, audio and Braille.

NHS Choices

www.nhs.uk

Includes an A-Z of treatments and conditions and information on NHS health services in your local area.

Patient UK

www.patient.co.uk

This website contains information that GPs use with their patients. Includes information on prostate problems.

Prostate UK

www.prostateuk.org

Telephone: 020 8788 7720

For information on prostate problems.

References to sources of information used in the production of this booklet are available at www.prostate-cancer.org.uk

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The Prostate Cancer Charity funds research into the causes of, and treatments for, prostate cancer. We also provide support and information to anyone concerned about prostate cancer. We rely on charitable donations to continue this work. If you would like to make a donation, please call us on 020 8222 7666.

The Prostate Cancer Charity makes every effort to make sure that its services provide up-to-date, unbiased and accurate facts about prostate cancer. We hope that these will add to the medical advice you have had and will help you to make any decisions you may face. Please do continue to talk to your doctor if you are worried about any medical issues.

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THE
PROSTATE
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