This term is used to describe any symptom or set of symptoms arising from the lower urinary tract.

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There are two sets of symptoms arising from the lower urinary tract:

STORAGE symptoms

These are caused by the bladder not acting as an adequate storage organ and include: increased urinary frequency, urgency, nocturia ( getting up at night) and rarely urge incontinence ( or leaking before reaching the toilet),

VOIDING symptoms

These are caused by a blockage on the way out – slow stream, hesitancy in starting urination, terminal dribble and feeling of incomplete evacuation.

You may have varying degrees of combination of these two sets of symtoms.

A symptom score helps evaluate the severity of your symptoms when due to the benign enlargement of the prostate and quantify how much bother it causes.

The IPSS (International Prostate Symptom Score) is the name for one of these questionnaires.

The symptoms are graded as:

• Mild: score 1 to 8

• Moderate: score 9 to 19

• Severe: score 20 to 35

Mild and non bothersome urinary symptoms

If your urinary symptoms are mild (ie IPSS less than or equal to 7 out of 35) and do not cause bother (bother score less than 3 out of 6), then only changes in lifestyle are usually all that is necessary especially if the prostate is small, the PSA is less than 1.5 ng/ml and the bladder empties efficiently. If necessary medication such as an alpha blocker may be given to reduce symptoms. A 5 alpha reductase inhibitor may shrink the prostate over time and reduce the chance of significant problems in the future. Surgery is not usually suggested if the symptoms are mild and respond well to alpha blockers.

Moderate and bothersome urinary symptoms

If the symptoms are more moderate (IPSS between 8 and 19 out of 35) and bothersome (bother score 4 or more out of 6), then treatment by either drugs (alpha blockers), or otherwise surgical options will need to be considered. If alpha blockers have not worked well or the bladder is emptying less well over time, then surgery is recommended.

What do I do about having to get up at night?

Getting up at night and passing urine becomes more common as one gets older.

Surgery on the prostate may help if the bladder is not emptying completely because of obstruction. However, the prostate is not always the cause of getting up at night.

Usually, urine production stops at night, but this may not occur resulting in excess urine production at night. To detect this, keep a record of the total amount of urine passed during the day and night. If the amount of urine made at night is more than 25% of the total daily amount, then the following can help, but discuss with your doctor before adopting the advice below:

• stop drinking 4 or more hours before going to bed

• take a nap in the afternoon making sure the legs are elevated and the body is horizontal if possible.

• wear tight compression leg stockings during the day

Your doctor should advise you further.

Drugs such as alpha blockers (eg tamsulosin or alfuzosin) can also be of benefit.

These measures can be combined with a tablet to help encourage more urine production in the afternoon (a diuretic) and something to stop urine production at night (DDAVP).

In some cases, the urgent need to pass urine occurs during the day and night. This problem may be due to overactivity of the bladder muscle and can be helped by avoiding caffeine and taking medicines. These medicines include solifenacin (Vesicare), tolterodine (Detrusitol) and oxybutynin (Lyrinel).

When you go to see a specialist ( Urologist), a detailed history will be taken by the doctor including the IPSS score. Examination of the prostate will be carried outy to assess the size and whether it is benign or cancerous.

Following this a series of tests will be recommended.

What tests are there to help decide what treatment is necessary and appropriate?

These tests include the following, but do not necessarily have to be performed always:

• Urinary symptoms (IPSS) questionnaire: This quantifies the severity of the symptoms and how much bother they cause.

• Blood test: for kidney function and to estimate the size of the prostate, and risk of prostate cancer (PSA)

• Urine Chemical Analysis: to determine the presence of blood or evidence of infection

• Urine Flow Rate: you will be asked to pass urine into a special machine that measures the speed of your urine flow as well as the volume of urine expelled. This test helps in evaluating the function of your bladder and the degree of prostatic obstruction.

• Measurement of the urine left in the bladder after passing urine (postvoid residual): The volume of urine in the bladder after it has been emptied can be measured by an ultrasound scan. If this is increasing over time, then surgery is probably a good idea

• Transrectal ultrasound measure of prostate volume: A probe is inserted in the back passage (rectum) and the size of the prostate is accurately measured. The larger the p prostate, the greater the chance of problems in the future.

• Urodynamics: Measuring pressure in the bladder during urination can determine how strongly the bladder contracts, the extent of obstruction by the prostate, and whether the bladder contracts inappropriately when it is filling with urine. This test also is done by placing a small catheter in the bladder and rectum.

• Cystoscopy: To look at the configuration of the prostate and changes in the bladder that may be responsible for urinary symptoms.

Urodynamics in men with an enlarged prostate: why, what and what to expect?

What are Urodynamics?

This is a one-hour outpatient diagnostic test to help understand why urinary symptoms are present and to help predict the outcome of treatment. The tests aims to determine the activity of the bladder whilst it is filling with fluid, and the pressure and speed at which urine is passed.

To do this, a very narrow tube has to be passed into the bladder through the urethra. Sometimes, it is combined with x-rays and is known as 'videourodynamics'. A gel with local anaesthesia may be used, but not general anaesthesia. Pressures are measured in the rectum (a.k.a. back passage) at the same time through another narrow tube.

Why am I having this test?

The test can determine the cause of urinary symptoms such as:

• slow flow, stopping and starting, and the need to dribble to finish passing urine

• increased frequency of passing urine during the day and night

• urine leakage (incontinence)

It can also help predict whether drugs or surgery are likely to have a good result for:

• urinary symptoms in men due to obstruction of the bladder by the prostate (BPH) or other cause

• overactivity of the bladder (also known as detrusor instability or detrusor overactivity)

What should I do before this test?

If you are taking drugs for your prostate or bladder, you should probably stop these a week before having the test. Check first with the nurses or doctors. These include:

- solifenacin (Vesicare)

- tolterodine (Detrusitol)

- oxybutynin (Kentera patches, Cystrin, Ditropan, Lyrinel)

- trospium (Regurin)

- propiverine (Detrunorm)

- tamsulosin (Flomax)

- terazosin (Hytrin)

- indoramin (Doralese)

It is not necessary to fast the night before or take laxatives. As long as a urine test to test for infection is normal, the study is very safe and can be performed with minimal discomfort. It is important to arrive with an almost full bladder since it may be necessary to do a urinary flow test before the formal urodynamic test. Usually, a nurse will be in the room during the study. Occasionally, a radiographer or doctor may be there also.

What will happen during the test?

You will need to undress and put on a gown. Local anaesthetic jelly will be placed in the urethra. A narrow tube (catheter) will be placed by a doctor or nurse through the urethra into the urinary bladder. In addition, another narrow tube will be placed in the rectum, which improves the accuracy of the test. The study can be performed whilst standing or sitting. A computer will record all of the measurements and a “tracing” will be generated.

Your doctor may be present during the critical parts of the study. He will analyse and interpret the study based on the tracings and x-rays if these are taken.

What happens after the test?

Half an hour after the test, you will be able to go home. You may experience some burning when passing urine for a few days and this is normal. There may be some blood in the urine, but as long as large clots are not formed, the bleeding will settle if you drink plenty of fluid. You can resume regular diet, medications, and normal activity levels after you leave. Often, antibiotics are prescribed for a few days afterwards. Your results will be discussed in outpatients.

For more information, download this file:

Are there any medicines that can help symptoms due to an enlarged prostate?

Rather than an operation, drugs, such as alpha blockers (e.g. tamsulosin, Flomax, Omnic, alfuzosin, Xatral, Cardura), relieve prostate symptoms by relaxing the muscle of the bladder neck and prostate and are useful in some patients with BPH — typically younger men with milder symptoms.

The drugs reduce symptoms by about 25% or 4 to 6 points out of a total of 35 (see IPSS questionnaire) in more than half of men who take the drug. Symptoms are reduced within a few days.

Side effects include drowsiness and headache in about 15% of men, reduced semen volume, and nasal congestion.

Finasteride or dutasteride can reduce the size of the prostate by about 20%, and improve symptoms in about 30 percent of patients who take it.

Symptom scores improve by about 4 or 5 points out of 25. For example, if your symptom score was 16, then the symptom score would be about 11 or 12 out of 35 after 6 months or more of treatment.

The chance of needing surgery for the prostate or being completely unable to pass urine ('acute urinary retention') is reduced by about 50%.

To remain effective, the drugs need to be taken for the rest of your life. The side effects of finasteride include reduced volume of semen and altered semen quality, impaired erections, reduced libido, and occasional growth of the breast tissue.

Using finasteride and an alpha-blocker together is more effective than either drug alone to relieve symptoms and prevents BPH getting worse. The two-drug regimen reduced the risk of BPH progression in two out of three patients, compared to one-in three for an alpha-blocker alone and one in three for finasteride alone.

Rather than an operation, drugs, such as alpha blockers (e.g. tamsulosin, Flomax, Omnic, alfuzosin, Xatral, Cardura), relieve prostate symptoms by relaxing the muscle of the prostate and are useful in some patients with BPH, especially younger men with milder symptoms.

Should I have an operation?

At one time, BPH was invariably thought to be a progressive disease. That is no longer the case. Only about 40 to 50 percent of all men with BPH actually develop any symptoms due to this condition, and of that number, only a proportion will need prostate surgery.

BPH requires treatment only if the symptoms are severe enough to disrupt your life or threaten your health. If, during your prostate examination, your doctor finds that you have significant symptoms and that your prostate gland is enlarged, you may start a program of medication and changes in life style to improve your symptoms. During this time, your doctor may examine you periodically and ask you to complete questionnaires (e.g. IPSS).

If your urination problems are not adequately relieved by medication or the side effects of the drug are excessive, you might then consider a TURP or laser prostatectomy (HOLEP).

Less invasive of all treatments include Urolift and Rezum or Aqua-ablation,.

TURP removes the prostate via a key hole surgery and

HOLEP utilises a laser to remove prostate tissue.

Removal of the enlarged part of the prostate is the best long-term solution for patients with BPH.

Surgery usually relieves the obstruction and incomplete emptying caused by BPH more than any other treatment.

For certain patients with particular signs and symptoms, a TURP or laser prostatectomy is almost always recommended. These signs and symptoms include:

• Total inability to urinate

• Profuse bleeding through the urethra due to prostatic enlargement

• Difficulty emptying the bladder because of prostatic obstruction, which can lead to progressive kidney failure

• Recurrent urine infections

If you decide to have a prostatectomy for reasons of comfort or for a more severe indication, you should know that an operation offers the greatest chance of getting rid of your symptoms.

Are there any alternatives to TURP or laser prostatectomy for BPH?

Less invasive treatments may not affect ejaculation. A stent is another alternative, but this is usually reserved for older men for whom a surgical procedure is particularly risky.

The same principle is used in Rezum which utilises steam for ablating the tissue. Urolift is another less invasive procedure( which essentially is placing staples in the prostate) and another alternative is prostate artery embolization (PAE) which utilises the principle of placing coil in the blood vessels supplying prostate which shrinks the prostate.

What are the risks/benefits of surgery?

Although there are nonsurgical treatments available to treat BPH, an operation offers the highest chance of alleviating prostate problems. However, it also can result in problems either during or after surgery.

After a TURP or laser prostatectomy, some men will find that semen does not go out of the penis during orgasm. Instead, it passes into the bladder and is passed with the urine next time. The feeling of orgasm stays the same. This backwards ejaculation is a problem for couples who want to have a baby.

Some conditions after TURP or laser prostatectomy may require additional treatment including:

• impotence (small risk)

• uncontrolled urine leakage i.e. incontinence (very small risk)

• a constriction of the urethra (stricture); or the necessity of a second operation later, in some patients (10%).

These risks and benefits must be considered by anyone considering a prostate operation, and your doctor can help you make your decision.

How do I decide what treatment is necessary?

Your GP and Urology specialist will help you with this decision.

When drugs are used, it's better to use a combination of alpha blockers with finasteride or dutasteride especially when the prostate is large or the PSA is greater than 1.5 ng/ml.

The HOLEP laser prostatectomy and TURP are more effective than drugs. In general, HOLEP laser prostatectomy and TURP are most likely to be effective if the prostate is causing obstruction of the bladder. This can be determined by the tests listed above.

The alternative procedures are – Rezum, Urolift and Prostatic Artery Embilization

Severe and bothersome urinary symptoms

For severe urinary symptoms (IPSS 20 or more) that are bothersome (4 or more out of 6), it is important to look in the bladder to make sure there are no other problems..

Further tests to determine whether urinary symptoms are due to obstruction by the prostate will often be necessary, especially if a TURP or other surgical procedure is being considered.

The biggest improvement in symptoms and quality of life occurs with the HOLEP or TURP, but not everyone wants these procedures.

Medicines such as alpha blockers or finasteride/dutasteride also relieve symptoms, but not as much. If drugs are used alone, further treatment is necessary. A poor response to alpha blockers and increasing residual urine or symptoms mean that surgery is almost always necessary.

In addition, if surgery is delayed when the bladder is obstructed by the prostate, the benefit of surgical procedures may be less than when surgery is performed early. This is possibly because the bladder may undergo irreversible changes if it is blocked for a long period of time.

With less invasive treatments available now (eg prostatectomy and Urolift , Rezum or Prostatic Artery Embolisation), it may be better to opt for one of these earlier than later.

How do I decide between drugs or surgery?

Conservative treatments and drugs such as alpha blockers work best when symptoms are mild or moderate. Urolift and Rezum gives symptom relief as a minimally invasive procedure that preserve normal sexual function. If symptoms are severe and the prostate is causing a blockage, then HOLEP or TURP surgery is more effective and lasts longer than less invasive treatments or drugs.

The severity of symptoms is judged best by assessing the symptom score (IPSS). If the symptom score is 20 or more and the symptoms are bothersome (4 or more). A test called urodynamics can determine if there is a blockage or not, and can also tell if the bladder contracts at the wrong time.

Sometimes, urinary symptoms such as getting up at night or having to rush urgently to pass urine are not due to the prostate; these symptoms may be due to the bladder contracting inappropriately.

Urodynamics can help predict if surgery may help. Surgery is most effective when there is obstruction present and this is usually proven by urodynamic testing.

Other factors are also important such as general fitness. It may not be safe to have an anaesthetic, which is necessary for most prostate surgery but not all. Drugs may be the only treatment possible.

What about Saw Palmetto?

Saw palmetto (Serenoa repens) is a type of palm tree, also known as the dwarf palm. Its primary medicinal value lies in the oily compounds found in its berries. Most dietary supplements are composed of an extract from the berries or a berry powder.

Saw palmetto dietary supplements improve urinary flow, and reduce the frequency and urgency of urination in men with prostate enlargement. Saw palmetto is believed to inhibit the actions of testosterone in the prostate that cause prostate enlargement and interference with urinary flow.

Fatty acids and sterols found in Saw palmetto inhibit testosterone in the prostate. Sterols are also present in other herbs (such as pygeum bark, stinging nettle root, and pumpkin seed extract) used in treating symptoms of prostate enlargement.

Saw palmetto is commonly used in Germany and other parts of Europe and the United States, but less commonly in England. There have been concerns about the quantity of active agent in various preparations of Saw palmetto.

Overview on TURP. (Transurethral Resection of the Prostate)

TURP is the classic treatment for urinary symptoms due to the prostate (prostatism) or BPH. Prostatic tissue is removed and so the physical bulk of the prostate is reduced. Obstruction is reduced and urinary symptoms considerably improved. The operation is performed through the penis and usually there are no cuts or surgical incisions. The procedure is tolerated reasonably well, although associated with retrograde ejaculation.

It is the gold standard treatment for BPH with many years of history to support its use.

Why have a TURP?

There are several potential reasons for having a TURP:

• urinary symptoms due to an enlarged prostate (BPH) that are bothersome and are not adequately improved by medicines or changing one's lifestyle

• urinary symptoms due to BPH that are bothersome and cannot be treated by drugs or other minimally invasive techniques

• urinary symptoms due to BPH proven to be due to bladder outlet obstruction on urodynamics with a desire to remove obstruction in order to avoid long term problems of bladder outlet obstruction

• The inability to pass urine without a catheter ('urinary retention')

• kidneys that are not functioning properly because the prostate is blocking the bladder

• recurrent urine infections due to obstruction caused by the prostate

• bleeding from the prostate due its enlargement (BPH), which may not have improved with a 5-alpha reductase inhibitor like finasteride or dutasteride

• prostate cancer ('channel TURP'): this is to allow urine to flow and is not intended to be curative

What are the advantages of a TURP?

TURP has several advantages. These include:

• rapid removal of prostatic tissue at the time of surgery

• it can be combined with some other procedures such as removing small bladder stones

• many years of data to support its use with a thorough understanding of its advantages, risks and outcomes

• widespread use throughout hospitals in most countries by urologists

How well does TURP work?

Almost 9 out 10 men who have a TURP for BPH find that their symptoms are significantly better after TURP providing

• bladder outlet obstruction is proven (e.g. on urodynamic studies)

• bladder that contracts with normal strength and has not become weak.

Men experience a much stronger flow of urine, shorter time in the toilet when passing urine and longer intervals between visits to the toilet. If the bladder did not empty before surgery, then getting up a night may also improve. After a year, the urgent desire to pass urine that some men suffer also gets better.

Men who have had to use a catheter to empty their bladder before find that they can pass urine without a catheter in many cases. However, this is not always true.

What are the risks or disadvantages of a TURP?

Most men have little trouble with the procedure and only about 1 in 6 have some form of problem. The most common is the inability to pass urine after the procedure ('urinary retention'). This may occur in about 1 in 14 men (about 6%) and usually resolves after another period of catheterisation.

Blood loss may occur but the need for a transfusion is very rare. Occasionally, bleeding results in blood clots in the urine. If these are very large, they may block the catheter. A urinary infection may occur and rarely this can be severe and lead to loss of life. This is very rare affecting less than 1% of men.

The fluid used during the procedure can be absorbed resulting in a drop in the sodium level of the blood. This is known as 'TUR syndrome'. This can occur in 2% of men (i.e. 1 in 50 men). In some cases, this is serious, but it can be avoided by following safe procedures.

Bleeding can occur in the urine for up to 3 weeks after leaving hospital. About 1 to 2 weeks after the operation, blood clots may appear in the urine, which also becomes pink. Drinking fluid and going to the toilet frequently clears the clots.

After the procedure, a strong sense of urgency may develop i.e. an urgent desire to pass urine sometimes associate with urinary leakage ('urge incontinence'). This occurs because the bladder muscle is intrinsically overactive in about 1 in 3 men who have the procedure, and the prostate prevented leakage by its sheer bulk before surgery. Drugs such as tolterodine, oxybutynin or solifenacin can improve these symptoms. This usually resolves by 6 months.

Rarely (less than 1 in 30 men), the muscle mechanism that controls the flow is damaged by TURP leading to incontinence on activity ('stress incontinence'). Pelvic floor ('Kegel') exercises can help this and again this usually resolves within 6 months of surgery. In the most severe cases, another operation may be needed to reduce leakage.

A narrow area may develop in either the urethra, which is known as a urethral stricture, or at the bladder neck, which is known as a bladder neck contracture. This affects about 1 in 30 men after TURP and can explain why urinary symptoms deteriorate after an initial improvement. These may need further surgical procedures before improvement.

Most men (over 70%) find that they have either a very reduced volume of semen or no semen when they have an orgasm and ejaculate. This is called 'retrograde ejaculation'. The semen is passed in the urine. This is not dangerous, but obviously some men may find that unacceptable in which case they should either not have surgery or choose Urolift or Rezum, which does not have this side-effect.

Erections may get worse or sometimes get better. As it is not possible to guarantee that erections will not be affected, one needs to think about this possibility before undergoing a TURP.

What are the alternatives to a TURP?

There are several procedures of which the most common are listed below.

• HOLEP: Compared to TURP, There is much less blood loss, a shorter hospital stay and reduced chance of needing a blood transfusion. For up to 2 months after HOLEP, there may be much more frequency, urgency and discomfort felt in the bladder and penis when passing urine. Patients have to go home with a catheter and may experience pain after. The leakage of urine can happen in upto 3-5% patients

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• Open prostatectomy: For this, an incision is made in the lower abdomen under general anaesthetic or when the skin is made numb from the waist down, and the prostate removed. Urinary symptoms are improved possibly slightly better than TURP. A prolonged hospital stay is required and bleeding can occur sometimes requiring a blood transfusion. This option is reserved for very large prostates that are usually too large to be treated by one of the other options.

• Prostate stent: This is usually reserved for patients who are unsuitable for any other form of therapy. It is performed in day surgery, involves local anaesthesia, but is probably less effective than the other options. Problems are more common later than after other procedures.

• Urolift: The prostate is stapled to the sides by a quick procedure and patients may get upto 40% benefit as compared to TURP or HOLEP. It does not compromise sexual function – complete maintenance of normal ejaculation and sensation on ejaculation as well as no deterioration of erectile function. It works immediately; no 3 month delay as with standard surgery, and patients often describing improvements in 1 – 3 weeks.

• Rezium: Ablation of prostate tissue is achieved by steam and is done as a day case procedure. A catheter is left for 7-10 days and the procedure may cause pain after wards. The benefit as compared to TURP or HOLEP is about 40-50%. It preserves sexual and urinary functions.

Are any special tests needed before a TURP?

In general, the tests performed before to evaluate urinary symptoms are all that required. If there is concern that the prostate is not the only cause for problems, then a flexible cystoscopy to examine the prostate, bladder and urethra (water pipe) may be necessary. If there is concern that prostate cancer may be present, then it may be necessary to take prostate biopsies.

What do I need to do before a TURP?

You should take your normal medication as before the procedure. Ask your doctor if you should stop aspirin or clopidogrel (Plavix) 7 days before the operation. In addition, you may need to stop warfarin, so be sure to check what needs to be done. You may need a blood test before surgery to determine if clotting has become normal enough. In some cases, you may be allowed to continue with warfarin.

If you have symptoms that might indicate a urine infection, antibiotics may need to be given to make it safe to have the procedure. Symptoms such as pain passing urine, increased visits to the toilet, bladder discomfort, offensive smelling urine or feeling unwell may indicate a urine infection. The urine should be checked by a health professional.

No food should be eaten 6 hours and no fluid drunk 4 hours before the planned time of laser prostatectomy. Special stockings to reduce the chance of a blood clot in the legs are worn on the day of surgery.

What happens during a TURP?

Under general anaesthesia (i.e. asleep) or spinal anaesthesia (i.e. numb from the waist down), a telescope examination is made of the prostate and bladder using a camera mounted on the end of a tube passed through the water pipe (urethra). As the instrument used for the procedure is quite large, the urethra may be enlarged slightly by performing what is known as an optical urethrotomy

A resectoscope is passed to the prostate. This has a tiny looped wire that is used to shave away layer after layer of prostatic tissue. The shaved tissue is then flushed into the bladder and washed out through the tubing at the end of the operation.

For men with smaller prostates, an alternative operation may be chosen: a TUIP (transurethral incision of the prostate) also known as a bladder neck incision (BNI). In this case, the surgeon uses an instrument that makes a few small cuts in the prostate and bladder neck rather than removing tissue. These cuts reduce the obstruction in the urethra and improve urine flow.

A catheter is placed in the urethra. This is used to wash the bladder gently following the procedure.

What happens immediately after a TURP?

At the end of a TURP, a catheter will be inserted through the urethra into the bladder to drain away the urine and blood. It is normal for the fluid draining from the bladder to be bright red after the operation. There is some discomfort but usually no pain post-operatively. The catheter will be left in place for a few days and removed when the urine is pink. Drinking plenty of fluids (8 cups a day or 3 litres/day) will ensure a good flow of urine and decrease the possibility of of blood clots, which can block the catheter The catheter may cause you to have bladder spasms or to feel the need to urinate. These symptoms can be improved by drugs.

You may be given antibiotics while you are in the hospital to prevent infection. The day after surgery, you should be able to get out of bed and walk around.

The catheter is held in place by a balloon inflated with water. When the balloon is deflated, the catheter slips out. You may feel pain the first few times you urinate because the prostatic urethra will still be healing. After removal of the catheter, the desire to pass water may be very urgent and it may sting a little.

This improves gradually over the next few weeks. If you have difficulties, it may be helpful for you to try to hold on for 10 minutes each time you wish to pass water.

Medication can also help.

Another exercise is to stop passing urine in midstream and count to three. This helps improve your control. Do not worry if you experience some dribbling of urine at this stage. Providing your bladder is emptying completely, you will be able to go home. Sometimes, an ultrasound scan of the bladder will be performed to check the bladder is empty.

What is life like after TURP?

Recovery can take anywhere from two to eight weeks. During the first few weeks after the operation, there may be a deterioration of some of the symptoms present before surgery. You may have some temporary problems controlling urination, but long-term incontinence rarely occurs. These symptoms can be helped by pelvic floor exercises and medication sometimes, especially to reduce the urge to pass urine.

During the first month after TURP or BNI, the scab inside the prostatic urethra may loosen and cause bleeding. The bleeding usually will subside if you increase your fluid intake and decrease your physical activity or by resting in bed and drinking fluids.

Contact your doctor if

• your urine is so red that it is difficult to see through it

• if it contains clots

• if you feel significant or increasing discomfort

In general, you should:

• Continue drinking a lot of water to flush the bladder.

• Avoid straining when moving your bowel.

• Eat a balanced diet to prevent constipation. If constipation occurs, ask your doctor if you can take a laxative.

• Don't do any heavy lifting.

• Don't drive or operate machinery.

By six to eight weeks after the operation, urination should be easier and less frequent, although you may have to get up at night to urinate. Months may go by before you feel completely normal. Generally, the longer you had the problem before you were treated, the longer your recovery time will be.

What will happen to my sex life?

You should not resume sexual activity until your surgeon says you are ready, which is usually about 4 weeks. Many men are afraid that prostate surgery will make their sex life a thing of the past. Today, that is generally not the case. In fact, if you have been suffering with an enlarged prostate for a long period, your sex life may actually improve after surgery.

What happens to my erections?

There is a small chance that TURP or open prostatectomy will affect your ability to have an erection. However, if you were in good health and were capable of having an erection before the operation, and if the nerves involved were not affected by the procedure, your chances of resuming normal sexual activity are very good.

However, surgery cannot usually restore potency that was lost before the operation. Complete recovery of the sexual function you had may take up to 1 year, lagging behind a person's general recovery. The exact length of time depends on how long after symptoms appeared that BPH surgery was done and on the type of surgery.

What happens when I ejaculate after a TURP?

Although most men are able to continue having erections after a TURP, a prostatectomy frequently makes them sterile (unable to father children) by causing a condition called "retrograde ejaculation" or "dry climax." During sexual activity, sperm from the testes enters the urethra near the opening of the bladder. Normally, a muscle blocks off the entrance to the bladder, and the semen is expelled through the penis.

However, the coring action of prostate surgery cuts this muscle as it widens the neck of the bladder. Following surgery, the semen takes the path of least resistance and enters the wider opening to the bladder rather than being expelled through the penis. Later it is harmlessly flushed out with urine.

Will I still have an orgasm if I can’t ejaculate?

Most men find little or no difference in the sensation of orgasm, or sexual climax, before and after surgery. Although it may take some time to get used to retrograde ejaculation, you should eventually find sex as pleasurable after surgery as before.

Many people have found that concerns about sexual function can interfere with sex as much as the operation itself. Understanding the surgical procedure and talking over any worries with the doctor before surgery often help men regain sexual function earlier.

If you have any problems after treatment for a prostate condition, talk to your doctor. Erection problems and loss of bladder control can be treated, and chances are good that you can be helped.

Is further treatment needed later for BPH?

Since surgery for BPH leaves behind part of the gland, it is still possible for prostate problems, including BPH, to develop again. However, surgery usually offers relief from BPH for at least 15 years. Only 10 percent of the men who have surgery for BPH eventually need a second operation for enlargement. Usually these are men who had the first surgery at an early age.

Sometimes, scar tissue resulting from surgery requires treatment in the year after surgery. Rarely, the opening of the bladder becomes scarred and shrinks, causing obstruction. This is known as 'a bladder neck contracture' and may need a surgical procedure similar to transurethral incision. More often, scar tissue may form in the urethra and cause narrowing ('urethral stricture'). This problem can usually be solved during an outpatient visit when the doctor stretches the urethra.

Can I get prostate cancer even though I have had a TURP?

Prostate cancer is still a possibility, since surgical procedures such as TURP do not remove the entire prostate. Prostate cancer can appear in the remaining tissue of the prostate. Therefore, it is important to maintain contact with your doctor, so that he or she can determine if any further investigation or treatment is required.

Who does the TURP and does experience matter?

Almost all urological surgeons are taught how to perform a TURP and so NHS or Private Consultant Urological Surgeons should be able to perform the procedure as part of their basic training.

Who is suitable for treatment by TURP?

Men who fulfil one of the reasons for surgery are suitable for TURP. There should be a good reason to undergo the procedure. The advantages, alternatives and risks need to be carefully considered before having the procedure.

Who is suitable for treatment by TURP?

If there is uncertainty about having a TURP, it may be wiser to try drugs for a period of time, as these can alleviate symptoms well in some people. TUNA can also alleviate symptoms and is less invasive than a TURP and preserve normal ejaculation.

Men with urinary symptoms and have no obstruction at all on urodynamics are unlikely to do well after a TURP.

Certain conditions or drugs make bleeding significantly more likely during or after TURP. Such drugs include aspirin, warfarin, clopidogrel and other drug thinners. Other surgical options less likely to cause bleeding such as laser prostatectomy may cause fewer problems.

Men who have an unstable heart (e.g. recent heart attack or coronary stent) or lung problem may be better waiting for a few months before having a TURP. If necessary a prostatic stent can be inserted if men are unable to pass urine and this can avoid a catheter.

Certain neurological conditions (e.g. myasthenia gravis, multiple sclerosis, or Parkinson disease) give rise to urinary symptoms in their own right. In such cases, extra special care should be taken to ensure that the prostate is in fact the primary cause for the symptoms. Video-urodynamic studies are necessary before surgery otherwise incontinence may results. If there is uncertainty about the benefit of a TURP, a prostatic stent can be inserted as this can be removed simply. Similarly, severe pelvic fractures can also give rise to incontinence after TURP.

Some men develop urinary symptoms after radiotherapy for prostate cancer. In general, it is better to delay or avoid a TURP as much as possible because incontinence may develop.

Treatment for prostate cancer by cryotherapy or brachytherapy can also cause problems if a TURP is performed. Alternatives should be sought if possible.

If an active urinary infection is present, a TURP should be deferred until the infection has been cleared or antibiotics have been administered.

HOLEP Laser Prostatectomy

Overview on HOLEP treatment for BPH

The HOLEP Laser System uses a laser to remove the prostate. A thin fibre is inserted into the urethra through a cystoscope, which is an instrument that allows the doctor to examine the bladder and prostate. A wide-open channel is created in the prostate allowing urine to flow much better than before. There is minimal if any bleeding and patients can either go home the same or next day

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Why have a laser prostatectomy?

The reasons are the same as for a TURP, which are:

• urinary symptoms due to an enlarged prostate (BPH) that are bothersome and are not adequately improved by medicines, changing one's lifestyle

• urinary symptoms due to BPH that are bothersome and cannot be treated by drugs or other minimally invasive techniques

• urinary symptoms due to BPH proven to be due to bladder outlet obstruction on urodynamics with a desire to remove obstruction in order to avoid long term problems of bladder outlet obstruction

• The inability to pass urine without a catheter ('urinary retention')

• kidneys that are not functioning properly because the prostate is blocking the bladder

• recurrent urine infections due to obstruction caused by the prostate

• bleeding from the prostate due its enlargement (BPH), which may not have improved with a 5-alpha reductase inhibitor like finasteride or dutasteride

• prostate cancer ('channel TURP'): this is to allow urine to flow and is not intended to be curative

In addition, the treatment can be performed in patients who have abnormal clotting or are on drug thinners (e.g. aspirin, warfarin etc) in certain cases.

What are the advantages of a laser prostatectomy?

Urinary symptoms are reduced as much as for traditional surgery and significantly more than with the use of medication. In addition, there is shorter stay in hospital, shorter period or no catheterisation and less blood loss. There is much less bleeding, which is why the procedure can be performed on men taking aspirin.

The instrumentation for a laser prostatectomy is smaller than that used for a TURP, so, in theory, there should be a reduced chance of a urethral stricture.

Saline is used during the procedure to irrigate the area, and this is safer than the irrigation used to a TURP that can cause a rare but dangerous problem known as TUR syndrome.

How well does a laser prostatectomy work?

The HOLEP works as well as TURP for small or moderate sized prostates. Providing men have bladder outlet obstruction, 9 in 10 men should experience a significant improvement in urinary symptoms after laser prostatectomy. Patients who had a catheter in should be able to pass urine with little problem.

What are the disadvantages of a laser prostatectomy?

The procedure takes longer to perform than a standard TURP and is effective on very large glands.

Discomfort or pain on passing urine is more common after a laser prostatectomy than after a TURP. This may last a week or sometimes go on for several months. This is sometimes accompanied by needing to visit the toilet more often and urgently during the day and the night.

Sometimes, slough, which is dead prostatic tissue, may be passed after the laser prostatectomy. This may temporarily interrupt the flow of urine; TURP can also be affected by blood clots that has similar problems.

There is a higher incidence of urinary leakage after the operation as compared to TURP.

Complications can occur although these are rare and can follow inappropriate firing of the laser into the bladder and damaging the tissue in that area.

What are the alternatives to HOLEP

There are several procedures of which the most common are listed below.

•TURP: This is the gold standard treatment for BPH by which other treatments are judged. Compared to laser prostatectomy, There is more blood loss and a greater chance of needing a blood transfusion, a longer hospital stay and more post operative complication. There is less discomfort felt in the bladder and penis after this compared to laser prostatectomy and usually there is no slough to pass.

• Urolift: The prostate is stapled to the sides by a quick procedure and patients may upto 40% benefit as compared to TURP or HOLEP. It does not compromise sexual function – complete maintenance of normal ejaculation and sensation on ejaculation as well as no deterioration of erectile function. It works immediately; no 3 month delay as with standard surgery, and patients often get describing improvements in 1 – 3 weeks.

• Rezium: Ablation of prostate tissue is achieved by steam and is done as a day case procedure. A catheter is left for 7-10 days and the procedure may cause pain after wards. The benefit as compared to TURP or HOLEP is about 40-50%. It preserves sexual and urinary functions.

• Open prostatectomy: For this, an incision is made in the lower abdomen under general anaesthetic or when the skin is made numb from the waist down, and the prostate removed. Urinary symptoms are improved possibly slightly better than laser prostatectomy. A prolonged hospital stay is required and bleeding can occur sometimes requiring a blood transfusion. This option is reserved for very large prostates that are usually too large to be treated by one of the other options.

• Prostate stent: This is usually reserved for patients who are unsuitable for any other form of therapy. It is performed in day surgery, involves local anaesthesia, but is less effective than the other options.

• Transurethral Microwave Thermotherapy (TUMT): this is another minimally invasive option that works well in selected patients but still results in retrograde ejaculation

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Are any special tests required before laser prostatectomy?

To make sure that a man has the appropriate prostate that can be treated well by laser prostatectomy, the following tests or investigations are sometimes necessary in addition to those necessary to evaluate symptoms:

• Ultrasound scan of the prostate: an ultrasound probe is through the anus to scan the prostate. It may be uncomfortable, but no needles are used and it is not painful. This gives the size of the prostate which determines if the prostate is not too large for laser prostatectomy.

• Telescope examination of the bladder (flexible cystoscopy): this is to evaluate the shape of the prostate and rule out other potential reasons that may cause urinary symptoms or prevent treatment by laser prostatectomy.

In some men, biopsies from the prostate may need to be taken to exclude prostate cancer. If prostate cancer is found, then alternative treatments may be necessary.

What do I need to do before a laser prostatectomy?

You should take your normal medication as before the procedure. Ask your doctor if you should stop aspirin 7 days before the operation. In addition, you may need to stop warfarin, so be sure to check what needs to be done. You may need a blood test before surgery to determine if all is well. In some cases, you may be allowed to continue with warfarin.

If you have symptoms that might indicate a urine infection, antibiotics may need to be given to make it safe to have the procedure. Symptoms such as pain passing urine, increased visits to the toilet, bladder discomfort, offensive smelling urine or feeling unwell may indicate a urine infection. The urine should be checked by a health professional.

No food should be eaten 6 hours and no fluid drunk 4 hours before the planned time of laser prostatectomy.

Patients have not reported any pain during the procedure. You and your doctor will discuss appropriate sedation.

Most patients can go home a few hours after the procedure. Sometimes, you may need to spend the night in hospital and go home the following morning. This is more likely if your procedure is done late in the day, or if you travelled a long distance to reach the hospital.

What happens during a laser prostatectomy?

Under general anaesthesia (i.e. asleep) or spinal anaesthesia (i.e. numb from the waist down), a telescope examination is made of the prostate and bladder using a camera mounted on the end of a tube passed through the water pipe (urethra). The laser is introduced and the prostate removed.