

Patient information

Prostate Gland Enlargement

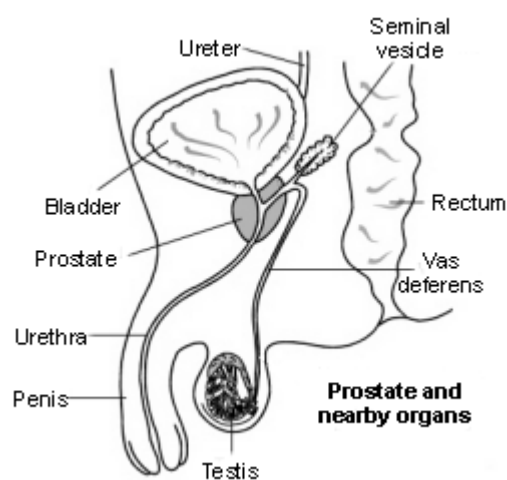
The prostate gland commonly becomes larger in older men. This is called Benign Prostatic Hyperplasia. It can cause problems with passing urine. Symptoms are often mild. Without treatment, symptoms do not always get worse, and may even improve over time. If symptoms become troublesome or distressing, they can often be improved by medicines or surgery.

This leaflet only deals with benign (non-cancerous) enlargement of the prostate. Cancer of the prostate is a separate condition and is dealt with in another leaflet.

What is the prostate gland?

The prostate gland (just called 'prostate' from now on) is only found in men. It lies just beneath the bladder (see diagram). It is normally about the size of a chestnut. The urethra (the tube which passes urine from the bladder) runs through the middle of the prostate. The prostate helps to make semen, but most semen is made by the seminal vesicle (another gland nearby).

The prostate gets bigger ('enlarges') gradually after the age of about 50. By the age of 70, about 8 in 10 men have an enlarged prostate. So, in later life it is as normal for your prostate to enlarge as it is to have grey hair.



What are the symptoms of prostate enlargement?

About 1 in 3 men aged over 50 have some symptoms due to an enlarged prostate. As the prostate enlarges it may cause narrowing of the first part of the urethra. This may partially obstruct the flow of urine from the bladder. This can lead to 'obstructive' symptoms such as:

- **Poor stream.** The flow of urine is weaker, and it takes longer to empty your bladder.
- **Hesitancy.** You may have to wait at the toilet for a while before urine starts to flow.
- **Dribbling.** Some urine may trickle out and stain underpants soon after finishing at the toilet.
- **Poor Emptying.** You may have a feeling of not quite emptying your bladder. The enlarged prostate may also 'irritate' the urethra and lower bladder which may cause:
 - **Frequency** (passing urine more often than normal). This can be most irritating if it happens at night. Getting up several times a night is a common symptom and is called 'nocturia'.
 - **Urgency.** This means you have to get to the toilet quickly when you 'need to go'.

Usually, the symptoms are mild to begin with. Perhaps a slight reduced urine flow or having to wait a few seconds to start passing urine. Over months or years, the symptoms may become more troublesome and severe. Complications develop in some cases.

NOTE 1: an enlarged prostate does not always cause symptoms. Also, the severity of the symptoms is not always related to the size of the prostate. It depends on how much the prostate presses on the urethra and lower bladder.

NOTE 2: not all urinary symptoms in men are due to an enlarged prostate. In particular, if you pass blood or have pain it may be due to bladder, kidney, or other prostate conditions. You should see a doctor if these symptoms occur, or if there is a change from your usual prostate symptoms.

What are the possible complications?

Complications are not common, but include the following:

- In some cases, a sudden total blockage of urine occurs. This is called 'acute urinary retention'. It is very distressing and painful, and you may need emergency treatment to drain the bladder. It occurs in less than 1 in 100 men with an enlarged prostate each year. It is more common if you have fairly troublesome symptoms already. However, in some cases, it can develop 'out of the blue' in a man who has not previously had any prostate-related symptoms that they are aware of.
- In some cases, only some of the urine in the bladder is emptied when you pass urine. Some urine remains in the bladder at all times. This is called 'chronic (ongoing) retention'. This may cause recurring urine infections, or incontinence (as urine dribbles around the blockage rather than large amounts being passed each time you go to the toilet).
- There is a small increased risk of developing sexual problems. For example, difficulty with getting an erection, pain on ejaculation, and reduced amount of semen when you ejaculate. It is not clear how an enlarged prostate may cause these problems in some cases.

Note: the risk of prostate cancer is not increased. Men with a benign prostate enlargement are no more or less likely to develop prostate cancer than those without benign prostate enlargement.

Do I need any tests?

- A doctor / specialist nurse may examine your prostate to see how big it is. This is done by a doctor or specialist nurse placing a gloved finger inside your anus to feel the prostate from behind.
- A urine and blood test may be done to check the function of your kidneys, and to rule out other causes of passing urine frequently (such as diabetes or a urine infection).
- A referral to a specialist (Urologist) may be advised if symptoms are severe, or if complications develop. Tests may be done in these more severe cases, particularly if surgery is being considered as a treatment. For example; cystoscopy (a look inside the bladder with a special telescope); a urine flow test to assess how bad the obstruction has become; a scan to see whether much urine remains in the bladder after you pass urine.
- A PSA (Prostate Specific Antigen) blood test may be offered. This can be used as a 'marker' for the size of the prostate. Larger prostates make more PSA. (Note: a high PSA level is found in people with prostate cancer. It has to be stressed that most men with prostate symptoms do not have prostate cancer. The result of the PSA test needs to be interpreted by a doctor / specialist nurse who takes into account various factors such as your age, size of prostate, etc.)

Is treatment always necessary?

No. In most cases, an enlarged prostate does not do any 'damage' or cause complications. Whether treatment is needed usually depends on how much bother the symptoms cause. For example, you may be glad for some treatment if you are woken six times a night, every night, with an urgent need to go to the toilet. On the other hand, slight hesitancy when you go to the toilet, and getting up once a night to pass urine may cause little problem and not need treatment.

What can we do to help ourselves?

- **Drinking**
 - Avoid caffeinated drinks and fizzy drinks and try a decaffeinated option.
 - Some health tips recommend drinking 2 litres of water a day. This could make the symptoms of frequency and urgency worse, therefore the best option is a compromise. Please do discuss further with your health-care professional who will advise you on this.
- **Bladder Training**
 - This means training your bladder to hold on to more urine before passing urine and resisting the first sensation to pass urine. This should only be done as a treatment if you have been advised to do so by a Urologist
 - Do this gradually and see if this is an improvement.
 - If the flow becomes worse when the bladder is properly filled, then this often indicates that treatment is indicated

What are the treatment options for prostate enlargement?

Not treating may be an option (often called 'watchful waiting')

If symptoms are mild, then this may be the best option. You may be happy to just 'see how things go' if the symptoms are not too bothersome and are not affecting your life very much. The situation can be reviewed every year or so, or sooner if there is change in symptoms.

Symptoms do not always become worse. They may even improve. One study of men with moderate symptoms who had no treatment, but were followed up for five years found:

- In 9 out of 20 cases, the symptoms remained about the same.
- In 8 out of 20 cases, the symptoms improved (without treatment).
- In 3 out of 20 cases, the symptoms became worse.

Medicines

The decision to treat with medicines usually depends on how much bother the symptoms are causing you. There are two main types of medicines that may help - alpha-blockers and 5-alpha reductase inhibitors. Medicines do not cure the problem, nor do they usually make symptoms go completely. However, symptoms often ease if you take a medicine.

Alpha-blocker medicines

There are several different types and brands of alpha-blockers which include: prazosin, indoramin, tamsulosin, alfuzosin, doxazosin and terazosin. These medicines work by relaxing the muscle tissue of the prostate and at the outlet of the bladder. In most cases, symptoms improve with taking an alpha-blocker. However, the amount of improvement varies from person to person. Some improvement usually occurs within a few days, but the full effect may take four to six weeks.

Most men can take an alpha-blocker without any problems, but side-effects occur in some cases. These include: slight drowsiness, headaches, and dizziness. (Read the leaflet in the medicine packet for a full list of possible side-effects).

5-alpha reductase inhibitor medicines

These are often used in addition to alpha-blockers. There are two types - finasteride and dutasteride. These medicines work by blocking the conversion of the hormone testosterone to dihydrotestosterone in the prostate. They do this by blocking an enzyme (chemical) called 5-alpha-reductase. Dihydrotestosterone is partly responsible for making the prostate enlarge. Therefore, a reduced amount of dihydrotestosterone in the prostate tends to cause it to shrink.

On average, finasteride or dutasteride can cause the prostate to shrink by about 30%. Symptoms may improve as the prostate becomes smaller. The full effect can take up to six months as the prostate gradually shrinks. As with alpha-blockers, the amount of improvement with finasteride or dutasteride varies from person to person, and no improvement occurs in some cases.

Side-effects sometimes occur with these medicines. Two examples are impotence and reduced sex drive. These occur in up to 1 in 20 men who take finasteride or dutasteride but are reversible if the medication is stopped. (Read the leaflet in the medicine packet for a full list of possible side-effects.)

Which medicine is chosen?

The severity of symptoms is not always related to the size of the prostate. A small or large enlargement may cause mild or severe symptoms. An alpha-blocker may help whatever the size of the prostate, as it works by relaxing muscle fibres. Finasteride or dutasteride tend to work best if you have a particularly large prostate which has more tissue to shrink.

Your doctor / specialist nurse will advise which medicine may be best in your circumstances. Also, if you develop a problem or side-effect with one type of medicine, then another type may be an option.

Combinations of medicines

In some cases, a combination of an alpha blocker plus a 5-alpha reductase inhibitor is used. This may give quicker and better relief of symptoms than either alone.

Some studies suggest that in men who take a combination of two medicines, about four in five can stop the alpha-blocker after six to twelve months without their symptoms getting any worse. This is likely to be because the prostate will have shrunk with the 5-alpha reductase inhibitor after this time, and the alpha-blocker is no longer then needed.

Herbal remedies

Herbal remedies that you can buy for an enlarged prostate include: saw palmetto, beta sitosterol plant extracts, rye grass, and Pygeum africanum bark extract. These are sometimes heavily advertised, but there is little scientific evidence that they work well. Saw palmetto has some evidence that it helps, but it is not conclusive. It may be worth a try if symptoms are mild.

Surgery

Although surgery is a more invasive procedure than medication, it is far more effective at treating the problem. A common operation performed is called 'Trans Urethral Resection of Prostate' (T.U.R.P). Removal of all, or part, of the prostate is an option if symptoms are very bothersome, or if medicines do not help. However, in some patients the prostate can re-grow following surgery, but this can take an average of 8 - 15 years before a second procedure is required.

Please refer to the hospital leaflet “**Surgical treatments for Benign Prostate Obstruction**” where the surgical options are discussed in more detail.

Further help and information

Prostate Research Campaign UK

10 Northfields Prospect, Putney Bridge Road,
London, SW18 1PE
Tel: 020 8877 5840
Web: www.prostate-research.org.uk

Prostate Help Association

Langworth Lincoln LN3 5DF
Web: www.pha.u-net.com
(Email or postal contact only. Please send two
1st class stamps for initial information.)

Prostate Cancer UK

Tel: 0800 074 8383
Web: www.prostatecanceruk.org
Facebook: Prostate Cancer UK
Follow on Twitter: @ProstateUK

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the patient experience team on 0300 131 4784 or esh-tr.patientexperience@nhs.net.

Hand hygiene

We are committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of our leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department on 0300 131 4434 or esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

Reference

The following clinicians have been consulted and agreed this patient information:
Consultant Urologists: Mr P D Rimington, Mr G M Watson. Urology Specialist Nurse
Practitioner, Penny Whitling.

The directorate group that has agreed this patient information leaflet:
Diagnostic, Anaesthetic and Surgery - Urology

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