

Fact sheet: Medications for enlarged prostate



Most men who have prostate problems either wait a while to see how their symptoms develop or take medication. Medication is often used when the symptoms are not bad enough to warrant surgery, but have become too bothersome to cope with. The man might have to get up several times a night to urinate, or constantly feel the need to urinate during the day too because his bladder will no longer empty properly. These typical symptoms of an enlarged prostate can become a real burden.

There are several types of drugs and combinations of drugs that can be used to relieve the symptoms of an enlarged prostate. As with all medications, there are possible benefits and adverse effects to be weighed up. Enlarged prostates mostly affect men over the age of 50, who are often on other medications as well, for example for high blood pressure (hypertension). Some medications can affect the symptoms of the BPH and perhaps interact with prostate medication as well.

So if you are thinking about using prescription or non-prescription medication for benign prostate problems, there are several things to consider, and we outline those here. If you want to learn more about enlarged prostates, self-management (how you can cope with the symptoms) and surgical treatment, you can read more about that in our [fact sheet series](http://www.gesundheitsinformation.de/a-z-list.539.56.en.html) (URL: <http://www.gesundheitsinformation.de/a-z-list.539.56.en.html>) on benign prostatic hyperplasia.

What is benign prostatic hyperplasia?

The prostate is a gland that lies underneath the bladder and surrounds the urethra. The urethra is the canal through which urine passes from the bladder through the penis. The prostate is an important part of a man's sexual organs. Its main function is to produce the fluid in semen (ejaculate). In younger men, the prostate gland is about the size of a walnut. It grows a little throughout adulthood. In about 1 in 5 men it starts to grow quite a lot after the age of 50 years.

The medical term for an enlarged prostate is "benign prostatic hyperplasia" (BPH), and the group of symptoms that it causes is sometimes called "benign prostatic syndrome" (BPS). "Benign" means that, although it is a growth, it is not cancerous. The word "hyperplasia" comes from the Greek word meaning "enlargement". An enlarged prostate can press on the bladder and urethra, which interferes with the flow of urine and the function of the muscles underneath the bladder. This can cause several problems affecting urination. But that does not mean that

there is always a direct relationship between the size of the prostate and the symptoms. Some men have a greatly enlarged prostate but few symptoms, while others have only a small enlargement but major symptoms.

The severity of the symptoms is critical to the decisions around whether or not to have treatment and, if so, which kind of treatment to choose. With milder symptoms, it may not be necessary to do more than wait and see how things develop. Medication is the most common kind of treatment for mild to moderate symptoms. For many men, the first treatment they try is often over-the-counter medication.

Are there any herbal preparations that have been proven to make a difference to prostate problems?

Treatment with herbal medicines is also called phytotherapy. Herbal medicines for prostate problems are among some of the most widely used forms of phytotherapy. Many men try them, especially for light or moderate prostate symptoms. In Germany, as many as 1 in 4 of the men who seek medical treatment for BPH use herbal products. They may use them alone, or sometimes in combination with prescribed medication for BPH.

There are more than 30 different botanical (plant) products that are used in non-prescription medications for BPH. The most common herbal ingredients are:

- Saw palmetto (*S. repens*), also called dwarf palm
- African prune tree (*P. africanum*)
- Rye pollen (*S. cereale*)
- South African star grass (*H. rooperi*)
- Cucurbita peponis semen (*cucurbita pepo* L.), also called pumpkin seed oil
- *Urtica radix* or *dioica*, also called nettle root

However, most of the herbal products for BPH have not been studied in the kinds of trials that are done for prescription medicines. These are called randomised controlled trials (RCT). In RCTs, volunteers are randomly assigned to different groups. In trials of medication, one group usually takes the medication being tested, while one or more other groups have a placebo (dummy) tablet or another medication, or sometimes a completely different treatment or no treatment at all. If the participants do not know what treatment they are receiving, we say they are "blinded".

The idea here is that the differences between the participants are spread evenly across the groups to make a fair comparison possible. If a trial has been done very well, and the group of people taking the medication being tested did better or worse than the others, then it is very likely that the improvement or adverse effect observed was caused by the medication. If several of these good, large trials all come to similar conclusions, then we can be really sure about what that medication can do.

The most studied herbal medicine for BPH is a saw palmetto extract or a combination of this substance with, for example, a nettle root extract. Some trials have suggested that these products might help. But other research has come to different conclusions. One reason for this could be because the different products looked at in the trials do not always have the exact same ingredients because they are prepared differently. Also, the men in these trials had symptoms of varying severity. Researchers have not reported any major safety concerns with these products.

If a herbal product is going to make a difference to your BPH symptoms, you could expect to notice a difference within about one or two months. However, the symptoms might have improved by themselves during this time, or the severity may vary over time anyway. You can read more about the various issues to consider when you are using non-prescription herbal medicine products here ([URL: http://www.informedhealthonline.org/index.383.en.html](http://www.informedhealthonline.org/index.383.en.html)) . If researchers report on important developments in trials of herbal medicines for BPH, we will update this fact sheet. If you want to read more about what you can do yourself to manage your BPH symptoms, this is covered in our fact sheet ([URL: http://www.informedhealthonline.org/index.440.en.html](http://www.informedhealthonline.org/index.440.en.html)) on self-management.

What are the most common prescription medicines for BPH?

Alpha blockers

The most common medications for BPH used in Germany and similar countries belong to a group of drugs called alpha blockers (alpha 1 receptor blockers). They aim to relax the muscles around the bottom of the bladder so that it is easier to empty the bladder. Alpha blockers were originally developed to reduce high blood pressure (hypertension), and so they might be particularly suitable for men who also have hypertension. But for men whose

blood pressure is normal, there is a risk of their blood pressure getting too low.

The most common alpha blockers used for prostate problems are:

- Tamsulosin
- Alfuzosin
- Terazosin
- Doxazosin

In Germany, tamsulosin is used far more often than any other drug for BPH.

According to the latest reviews of trials of drugs for BPH, alpha blockers are the most effective medicines. Researchers have estimated that about 6 out of every 10 men who use these drugs should be able to notice at least some improvement in their symptoms. For comparison, trials have shown that 3 to 4 out of every 10 men who had taken placebos also reported that their symptoms improved, but only a little.

If these drugs are going to work for you, you can expect to notice a clear improvement within days. They usually reach their maximum effect within a month. If the drug has not helped after eight weeks, then it is unlikely that it will work for you.

The adverse effects of alpha blockers include headaches, drowsiness, low blood pressure, blocked or runny nose, and reduced semen ejaculated during orgasm. This ejaculation problem affected up to an extra 1 out of 10 men who took tamsulosin compared to those who took a placebo. And 1 out of 10 men who took doxazosin reported feeling weak (asthenia). Researchers estimate that between 4 and 10 out of 100 men who take these drugs experience adverse effects. But men who took a placebo reported having some of these adverse effects too. Sometimes men who are taking terazosin or doxazosin start on a low dose to reduce the risk of adverse effects, particularly on blood pressure, but that is not necessary for tamsulosin and alfuzosin.

Enzyme inhibitors

These used to be the most commonly used drugs for BPH, but the alpha blockers have largely replaced them. The full name of this group of drugs is 5-alpha-reductase

inhibitors. Reductase is an enzyme (a protein molecule that speeds up certain metabolic processes). If an enzyme is inhibited, the metabolic process slows down. In the treatment of BPH, enzyme inhibitors aim to reduce the size of the prostate by reducing the amount of hormone that contributes to prostate growth. The enzyme inhibitors used for BPH are:

- Finasteride
- Dutasteride

These drugs can reduce the symptoms of BPH, but they start working much more slowly than alpha blockers. There might even be no real noticeable effect for as long as a year, although usually the maximum effect is reached by around six months. Because enzyme inhibitors work by reducing the size of the prostate, they are not likely to have as much of an effect in a man who has BPH symptoms without having a very enlarged prostate.

Around 4 out of every 100 men who take enzyme inhibitors experience adverse effects. It is not clear how common adverse effects are with placebos. Because the drugs influence the hormones, they can have adverse effects on the men's sex lives, including erection problems, a decrease in sexual desire or reduced ejaculation of semen during climax.

One of the complex issues around using these inhibitors is that their effect on the risk of developing prostate cancer is unclear. Some research has suggested that they might delay the onset of prostate cancer, but slightly increase the risk of developing a more severe form of prostate cancer. These drugs also change the level of "prostate-specific antigens" (PSA) in the blood. If you are taking one of these drugs, any doctor that gives you a PSA test for prostate cancer needs to know that you are taking an enzyme inhibitor for BPH.

Drug combinations

Alpha blockers and enzyme inhibitors are combined to try to prevent the prostate from growing more by using the enzyme inhibitor, while getting the maximum early relief from symptoms by using an alpha blocker.

Researchers have found, however, that taking the enzyme inhibitor on top of an alpha blocker does not improve symptoms or quality of life in the first year or so. The enzyme inhibitors can have adverse effects on men's sex

lives too. So the combination of alpha blockers and enzyme inhibitors is controversial, but research is continuing in this area.

It is possible to combine herbal BPH medication with alpha blockers or enzyme inhibitors, but this has not been proven to achieve a better outcome.

Anticholinergics or antimuscarinics

These drugs are much less commonly used for BPH, and they probably do not help as much as alpha blockers or enzyme inhibitors. In fact, these drugs were actually developed to help with other kinds of problems that cause similar symptoms to BPH. They are used to treat a condition called overactive bladder syndrome or certain forms of incontinence (when urine leaks because the bladder cannot control it). For men who have one of these problems as well as BPH, these drugs might be used. But for men who are experiencing a lot of problems with obstruction of their urine flow, these drugs could make the problem worse.

How do these drugs for BPH interact with other drugs?

When you consult a doctor about BPH symptoms, one of the first things he or she will do is ask you about other medications you are taking. This is for two major reasons. Some drugs, like drugs called diuretics, might actually make your urinary symptoms worse. Diuretics are drugs that are used for hypertension and other conditions. Secondly, your doctor will want to check with you whether there are any drugs that you are taking that could interact with a drug used for BPH.

There is not enough research to be really certain about the effects of taking BPH drugs together with other drugs. For example, it is still not clear how drugs for erectile dysfunction and BPH might affect each other. Both alpha blockers and drugs for erectile dysfunction can cause low blood pressure. If men take both of these drugs, they could experience adverse effects.

What if the medicines do not work or the adverse effects are not tolerable?

If one medicine does not work for you, you can discuss with your doctor whether there is another, more suitable, medicine that you could try. Each of the individual medications can have different advantages and disadvantages. It could take a few months of trying

medications before you find out if they can really help you.

However, if your symptoms keep getting worse, or the adverse effects are a problem, then the next option that might be considered is surgery. For most men, though, BPH will not become so severe that they need to have surgery.

Surgery is mainly considered when the symptoms have become severe or too difficult to cope with. Surgery has more serious adverse effects than medication. These adverse effects are fairly common and sometimes irreversible. But when the symptoms are severe, some forms of surgery also offer more symptom relief than medication can. The standard surgical procedure usually reduces the symptoms to a mild level in most of the men who have it.

You can read more about this and other surgical options and men's experiences in our feature (URL: <http://www.gesundheitsinformation.de/a-z-list.539.56.en.html>) and fact sheet (URL: <http://www.informedhealthonline.org/index.442.en.html>) on surgery.

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Glossary

hormones

“Hormones” is the collective term for different types of messenger substances in the body. They are produced in different organs or tissues and released into the blood or the lymphatic system to be distributed throughout the body. Hormones only have an effect on those parts of the organism that have a corresponding docking site. This is how hormones can have such specific effects. Insulin, estrogens, vasopressin and thyroxine are some well-known hormones. Many medical ingredients imitate the effect of hormones.

bladder

The urinary bladder is the organ that collects urine before it is released from the body through the urethra. The urine passes from the kidneys to the bladder by travelling through tubes called ureters. An adult bladder can hold between 0.5 and 1 liter of urine (about 17 to 34 ounces), but the urge "to go" is usually already felt when there are smaller amounts of urine. The bladder can change in size depending on how much urine it is holding thanks to the muscles surrounding it. The urine is held back by sphincter muscles. When we urinate, the muscles of the bladder contract and the sphincter muscles relax, causing the bladder to open.

incontinence

Incontinence is the medical term for not having voluntary control over holding in stool or urine. The term is usually used to refer to urinary incontinence, where bladder control is impaired. There are different types of incontinence: Involuntary loss of urine when someone coughs or sneezes is called stress incontinence. This is mostly caused by a weak bladder outlet, as can happen in women who have weak pelvic floor muscles, for example. Neurological conditions such as multiple sclerosis or dementia, but also an enlarged prostate gland in men, may cause what is called urge incontinence: this is where only small amounts of urine can be stored in the bladder before the urge to urinate is felt. Damage to the spinal cord, for example in people with paraplegia, affects the bladder's sphincter muscle directly. This is referred to as reflex incontinence.

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