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PROSTATE INFORMATION

### **SPOTLIGHT ON**

Prostate conditions and erectile dysfunction



### Introduction

Erectile dysfunction (ED) or impotence are the terms used when a man is unable to get or keep an erection firm enough to have sexual intercourse. Being able to get an erection can be important to men, no matter what age they are.

Although erectile dysfunction is a fairly common problem and becomes more common as men get older, some men are embarrassed about it and therefore don't like to talk about it or ask for help.

ED can be a symptom of some other health problem and may be a sideeffect of another treatment, a medication, a symptom of some other disease or it can be psychological. There are treatments available for ED, and so it is advisable to speak to your doctor or nurse for help with ED. Doctors and nurses are used to helping men with this difficulty and so you don't have to put up with it because of embarrassment.

### How do erections happen?

To help you understand why ED occurs, it may help to know how erections happen in the first place.

In order to get and keep an erection, messages travel from the brain through the nerves to the penis. These nerves lie close to the prostate. Messages travelling through the nerves relax the muscle in the penis letting more blood flow into the tissues surrounding the penis. As a result, the penis becomes larger and erect.

So, for a man to have an erection he needs hormones (such as testosterone), a good blood supply, connecting nerves, the desire to be intimate and stimulation. If one or more of these aren't working properly, a man may not be able to get or keep an erection long enough for sexual intercourse.

### How is the prostate involved in erections?

Although your prostate isn't involved in helping you achieve an erection, it does play a part in sexual intercourse. It supplies a thick, clear fluid that mixes with sperm to form semen, called the ejaculate. This fluid helps to nourish and protect sperm during intercourse.



The nerves that help a man have an erection run very close to the prostate and may be damaged by some of the treatments for prostate cancer and sometimes for treatment of benign prostatic hyperplasia (BPH).

### Some other difficulties not to be confused with ED

### Loss of libido

This is losing interest in having sexual intercourse. It may result from psychological reasons such as depression, or may be a side-effect of some of the treatments for prostate disease/prostate cancer or medications used to treat other conditions.

### Retrograde ejaculation or 'dry orgasm'

This means that at the end of sexual intercourse nothing comes out of the penis because the semen has passed backwards into the bladder rather than down the penis. This doesn't do any harm and passes out in the urine the next time the man goes to the toilet but will however make the urine look cloudy. Retrograde ejaculation can of course affect your fertility as semen has passed backwards rather than coming out of your penis, but it may be best not to rely on this as a method of contraception.

### Causes of ED

ED can be a symptom of, or caused by, another health condition or treatment. The *most common* causes of ED are:

### Other medical conditions

- High blood pressure;
- High cholesterol levels in your blood;
- Heart disease;
- Diabetes;
- Smoking;
- Drinking too much alcohol;
- Being very overweight;
- Some medicines may cause difficulties with erections.



### How you are feeling can also affect your ability to get and keep erections

These include:

- Feeling anxious or worried;
- Feeling depressed;
- Stress;
- Being unable to talk about it with your partner.

However, your ability to get erections can be affected by prostate conditions, surgical treatments for your prostate and sometimes by medications for prostate conditions.

### After a radical prostatectomy

This is the operation that removes the prostate with the intention of curing cancer that is contained within the prostate and hasn't spread away from the prostate. The nerves necessary to have an erection run very close to the prostate, and may be damaged during this operation. It is difficult to predict which men are prone to get ED due to damage to these nerves, but it's very common for a man to have difficulties getting natural erections after this operation. In many cases the nerves (and normal erections) recover with time. However, there are treatments available to help you if ED has become a persistent difficulty.

After a radical prostatectomy, although the man will not be able to ejaculate he can still experience orgasm and he may find that a small amount of urine leaks out instead. This will not do any harm to the man or his partner.

A few things which may affect your erection:

• After the operation your body needs time to heal.

It's common not to have an erection in the first six or nine months after surgery and it may take up to 18 - 24 months before you can have a natural erection.

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### • Your age.

Men under 60 tend to have better quality erections before surgery and, therefore, are more likely to recover erections after surgery.

- Recovery of erections can therefore depend on:
  - How good or firm your erection was before your operation;
  - How sexually active you were before your operation;
  - Whether the surgeon was able to save the nerves (called nerve sparing surgery) that lie very close to the prostate and that are responsible for erections.

Many doctors now think that the sooner you start having stimulation or trying to have intercourse, this may actually improve the chances of having the same kind of erection as you did before your operation. Touching, caressing, holding and massage can help. A lot of evidence now shows that introducing treatment for ED early after the operation may improve your chance of regaining erections.

### Radiotherapy treatments to the prostate to treat prostate cancer

Difficulties in getting and keeping erections may occur in up to 60% of men after radiotherapy. This is because the blood vessels and nerves needed to get an erection can be damaged during the treatment. As this happens gradually, sometimes up to 2 years after treatment, you may not notice any difficulties with erections at first. However, if you have had hormone therapy along with radiotherapy you may already have had difficulties with getting and keeping an erection.

### Hormone therapy to treat prostate cancer

Because of the way hormone treatment works, by switching off or blocking testosterone, common side-effects are ED and loss of libido. If you have intermittent hormone therapy, (having hormone therapy followed by stopping hormone therapy) then during the 'stop' time, you may find that you get back the same kind of erection that you had before starting hormone therapy.



### After a transurethral resection of the prostate (TURP)

Very few men have problems with ED after a TURP. If this happens it is most likely to be men over 70 or those who had difficulties with erections before the operation.

### **Treating Erectile Dysfunction**

#### (Please note:

The information given about treatments is meant as general guidance. As there is more than one approach, and treatments may vary slightly from hospital to hospital, ask for more advice from staff at the hospital you are attending or your GP. If you are given specific information by your GP, consultant or specialist nurse, then it is important that you follow their instructions and guidance.)

There are many treatments available for ED. The treatment will depend on why ED is happening and how healthy you are in general.

Usually treatments include:

- Taking medication or tablets;
- MUSE® (medicated urethral system for erections) using an applicator;
- Injections into the penis;
- External vacuum pump;
- Counselling. The doctor may perhaps refer you to a specialist nurse or counsellor to help with this difficulty.

#### Medication as a tablet

This may be the most commonly used treatment for ED. Your GP or possibly hospital consultant may prescribe these tablets for you. There are 3 types:

- Sildenafil: you may know this as Viagra®;
- Tadalafil : you may know this as Cialis<sup>®</sup>;
- Vardenafil: you may know this as Levitra<sup>®</sup>.

These work by increasing the blood flowing into the penis to help you have an erection. These work best if the nerves running alongside the prostate are not damaged so may not be suitable for all men.





Guidance on using the tablet medication	
Dosage	It's important to follow the instructions given by your doctor or specialist nurse on how to take these. Remember not to increase the dose yourself but ask your doctor or specialist nurse for more advice It may be that you will need to try different tablets, what works for one man may not work for another. Let the doctor or specialist nurse know about any concerns or difficulties that you have and they may change the dose or prescribe a different tablet for you to try
When and how to take	The tablet has to be taken about 30 minutes to an hour before sexual intercourse. You can take these with food but it may take longer to have an erection especially if you have a large or fatty meal. This is particularly true with Viagra®
Time to get an erection	The time varies depending on which tablet you have been prescribed but it usually works in about 30 - 60 minutes. Although it helps increase blood flow to the penis, it still requires the correct mood and normal sexual stimulation to get an erection
Side-effects	<ul> <li>The side-effects are not usually too troublesome. The higher the dose the more likely you are to have some of the side-effects. The most common side-effects are:</li> <li>Headache</li> <li>Flushing</li> <li>Indigestion</li> <li>Blue tinge to your vision perhaps with some dizziness</li> </ul>
Is there anything else I should be aware of?	If you have an erection that lasts for more than 3 - 4 hours, (called priapism), without sexual stimulation there is the risk of permanently damaging tissues in the penis. It needs to be treated urgently so contact your doctor, NHS 24 or go to the closest A&E department



Is there anything that I can do to help these drugs work well?	<ul> <li>Allow enough time to let the drugs take effect before trying to have sexual intercourse</li> <li>Try to be calm and not too anxious or worried</li> <li>Stimulation (such as touch) is necessary</li> <li>Avoid having too much alcohol as this can affect your ability to get and keep an erection</li> <li>Avoid having a very fatty meal when taking Viagra® as this can delay the drug getting into your bloodstream</li> </ul>
Not recommended	Men who also have heart conditions or who take drugs to treat angina should tell their doctor about the other medicines they are taking before taking Viagra®, Cialis® or Levitra®

### Buying these drugs

These drugs can be prescribed on the NHS for ED caused by some treatments for prostate cancer, so you don't have to buy them. However, the drugs are not available to all patients on the NHS. Your doctor can still write a prescription but you may have to pay for the tablets. Ask your GP or specialist nurse for more information.

There are, however, many internet sites that offer Viagra®, Cialis® and Levitra® for sale or 'online prescriptions' for men with impotence. The drawbacks are that these sites don't know the cause of your ED, which other medicines you are taking, how these medicines might affect you, what these medicines actually contain and also most importantly how pure these medications are. If you buy from these sites try to make sure it is a reputable site and let your GP, hospital doctor or CNS know.

### Treatment of erectile dysfunction after a radical prostatectomy

As treatments will vary from man to man ED is treated according to what suits the man best. So once you've been diagnosed with ED after having a radical prostatectomy, the urology department who are looking after you will advise you on the most suitable treatment for your ED taking into account your wishes.



# (As there is more than one approach, and treatments may vary slightly from hospital to hospital ask for more advice from staff at the hospital you attend but a common way to begin treatment is to:)

1. Start off with medications such as sildenafil (Viagra®), vardenafil (Levitra®) and tadalafil (Cialis®). These will usually be prescribed to be taken once per week and should be taken even if you're not planning on being intimate as there is evidence that earlier treatment results in a better response to treatment. It's important that you don't increase the dose yourself without speaking to your doctor.

Your doctor may advise you to take these for a period of time. As doctors differ in how long they prescribe these medications for, ask how long you might be on this type of treatment before they might consider introducing MUSE<sup>®</sup>.

- 2. If you are still not able to have an erection or if you can't take the medication mentioned above, then treatment with MUSE® (see following section for more information) is usually recommended once a week. Again, always keep to the dose recommended by your doctor.
- 3. If neither of these treatments work individually, then your doctor may combine the tablets and MUSE®.
- 4. Where none of these treatments are successful then your doctor may suggest:
  - a. An external vacuum pump (see following section);
  - b. An injection into the penis (see following section);
  - c. Very rarely a doctor will suggest penile implants after radical prostatectomy.

Some hospitals may advise that the vacuum pump is introduced at an earlier stage as it can be used for 'physio' to the penis and can be used when you are taking the oral medications such as Viagra<sup>®</sup>, Levitra<sup>®</sup> and Cialis<sup>®</sup>.

### MUSE® - medication using an applicator

MUSE® stands for Medicated Urethral System for Erections. The medicine, called alprostadil, works by widening the blood vessels going into the penis, allowing more blood into the penis and this gives an erection.



The medicine is given using a small applicator that holds a little pellet of the medicine inside it.

This medicine can be used by men who are taking another type of medicine that prevents blood clots such as warfarin. It isn't suitable for men who have inflammation in the urethra or at the tip of the penis.

#### How is it given?

Your doctor or specialist nurse will show you how to use this medication and it may require some practice to get this right.

First of all, it's important to pass urine so the urethra (water pipe) is moist. This makes it easier to slide the applicator into the urethra as well as helping the pellet of medicine to dissolve more easily. If you pass urine after the medicine is inside the urethra it may reduce the amount of medicine available.

The small tube is gently slid into the urethra inside the penis. By pressing a button on the applicator, the little pellet is released and taken into the tissues that give erections. After the medicine is inside the urethra you should roll the head of your penis in your hands for about 10 - 30 seconds so the medicine is spread evenly. It's best to stand or walk around for about 10 minutes while an erection is developing. If you lie down on your back too soon you may not get enough blood flowing into the penis and the erection may be lost.

An erection usually develops in about 10 minutes and lasts for at least 30 minutes.

### Side-effects

Medicines and their possible side-effects can affect individual men in different ways and just because a side-effect is mentioned it doesn't mean that you will get these side-effects. Some of the potential side-effects are listed here:

- A mild burning feeling in the urethra that can last from 5 to 15 minutes. This isn't usually painful;
- Some mild pain in the penis;



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- Minor bleeding from the urethra;
- Dizziness;
- Fainting;
- Headache;
- Aching in the testicles and legs;
- A painful erection that lasts for more than 3 4 hours (priapism). Contact your GP, NHS 24 or go to an A&E department as soon as possible if this happens as a long-lasting erection can permanently damage tissues inside your penis;
- Your partner may have some irritation such as an itching or burning feeling, so it may be best to use a condom to stop this from happening.

The doctor or CNS helping treat your ED will chat more about the side-effects with you and you should let him/her know of any concerns or worries.

### Medication by injection

Some patients who cannot tolerate other medications, or those who have severe forms of ED which have not responded to other medications well, may need this form of treatment. This involves injecting the drug alprostadil (Caverject®) into the penis using a very fine needle (like the ones that diabetic patients use) so you can have an erection firm enough for intercourse. This is quite a common way to treat ED and usually thought to be the most effective treatment for ED after treatment for prostate cancer.

Although injecting into your penis may sound a bit alarming at first, the specialist nurse or your doctor will make sure that you know how to do the injection by showing you, then making sure that you can do this yourself. You won't need to have any kind of anaesthetic. Most men can learn how to do the injection themselves but it can take between 5 and 10 tries to get it completely right.

Finding the right amount of the drug needed to give an erection varies from man to man so it is important that the doctor treating your ED finds the right dose for you and it is usual to start off on a lower dose and build up to a dose that gives a firm enough erection.



### How does the injection work?

An injection of alprostadil is needed each time you want to have an erection. It works by opening up the blood vessels in the penis, letting them fill with blood and then stopping blood flow out. Usually an erection develops within about 10 minutes and lasts for about 30 - 60 minutes and will go on even after ejaculation/orgasm.

### How is it given?

The injection is given into the side of your penis rather than on the top or bottom so that you don't damage important nerves, blood vessels or the waterpipe called the urethra. It's quite common to find that the injection is slightly painful. If you are in a lot of pain when you do the injection, stop straight away. If you are still in a lot of pain in about half an hour, then you should contact your doctor or NHS 24 for more advice.

### What about side-effects?

You might have some side-effects from the injection such as:

- Pain or discomfort when you do the injection;
- Some bruising under the skin from the injection. This will go away after a few days but contact your GP if the bruise gets bigger;
- Thickening or scarring on the penis can happen if injections are given in the same area all the time;
- Priapism, an erection that lasts more than 3 4 hours needs urgent treatment.

### External vacuum pump

The vacuum pump is made up of a clear plastic tube that is attached to a pump. The pump works either by using a battery or by hand.

### How does it work?

The clear plastic tube is put over your penis and all the air is taken out by using the pump. As air is taken out of the tube, blood is drawn into your



penis so it swells and becomes erect. Once you're familiar with using the pump, it may take only a few minutes to get an erection but when you first try it can take up to about 7 minutes to have a full erection.

To keep your erection, a rubber ring is slipped around the base of the penis to stop blood flowing out of the penis. Your penis might feel cold or numb. You can keep the rubber ring in place for up to 30 minutes - if you leave the ring in place for longer than this it may cause some bruising or some permanent damage to your penis or the waterpipe known as the urethra.

After intercourse has finished, gently stretch the rubber ring so the blood trapped in the penis is released. This means that you will lose your erection and the ring can easily be taken off the penis.

Remember; always take the ring off after intercourse and don't go to sleep with the ring still in place.

Don't be disappointed if a vacuum pump doesn't work for you straight away it may take a few times to be able to use the pump correctly. If you are finding it difficult, speak to your doctor or specialist nurse for more advice.

### Can any or all of these treatments be prescribed for me?

All the treatments outlined above can be prescribed for ED if you have had any of the following conditions or treatments:

- Prostate cancer;
- Radical pelvic surgery;
- Prostatectomy;
- Trans Urethral Resection of the Prostate (TURP).

### Is there anything else that I could do that might help?

### **Pelvic floor exercises**

You might like to ask your doctor or specialist nurse if you would benefit from doing pelvic floor exercises. These exercises are done every day and are to strengthen the pelvic muscles around your urethra, back passage and tummy. You may be referred to a specialist physiotherapist for more information on how to do these exercises or the specialist nurse in the clinic



can explain how to do these. Having strong pelvic floor muscles may also be beneficial in helping you to achieve and maintain an erection. There is a booklet on pelvic floor exercises available from Prostate Scotland 'Spotlight on Pelvic floor exercises for men'. This can be downloaded from our website, or request a copy by contacting us on info@prostatescotland.org.uk or call us and a copy will be sent to you.

### Lifestyle factors

Your ability to get erections may be affected by some of the lifestyle choices you make. Think about your lifestyle – do you have a healthy diet? Do you take enough exercise? Do you need to lose some weight? Do you smoke? Do you drink and if so how much? Do you take drugs that aren't prescribed?

If you're not too sure about any of these, then perhaps the following section on possible changes that you could make to your lifestyle will help or ask your specialist nurse for more information. Often changes that you make to your lifestyle may not only help improve your general health and well-being but may also help with ED.

### Healthy diet

A healthy diet is good for your overall health and wellbeing. All you need to do is eat sensibly, choosing a wide variety of foods. Try to include 5 portions of fruit and vegetables every day. If you would like more information, perhaps you could ask to see a dietitian.

#### Your weight

Being overweight can bring with it many health problems and can also reduce testosterone levels which can affect your sex drive and is associated with a high cholesterol which can 'furr up' arteries to your penis. This in turn can hamper your ability to get and keep an erection.

If you are overweight the best way to shed those extra pounds is to follow a healthy diet and also cut down or cut out sugar, sugary drinks, sweets, chocolate, cakes, puddings, fried foods, crisps and take-aways. If you are very overweight your doctor may refer you to a weight loss clinic.

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### Exercise

Recent studies have all pointed to the value of taking regular exercise which may help with your general health and feeling of wellbeing. If possible, aim for 30 minutes of moderate exercise, 5 times a week. This can include going for a brisk walk, swimming, mowing the lawn, doing the gardening or washing and polishing the car. If you haven't exercised for a long time then you will need to build this up gradually. Always check with your doctor before starting to exercise.

### Alcohol intake

As long as you have not been told otherwise, then a moderate amount of alcohol should be fine. However drinking too much reduces the ability to have an erection so it's best not to go over the sensible drinking limits and have a couple of 'alcohol free' days each week.

### Smoking

The ability to achieve an erection is affected by smoking. The best advice is to give up smoking.

If you have difficulties, worries or concerns with ED, then you should speak to your hospital doctor, CNS or GP.

You will find additional information on the following websites:

- www.sexualadviceassociation.co.uk
- www.nhs.uk/conditions
- www.baus.org.uk/patients/symptoms/impotence