Vacuum devices are drug free and suitable for patients who have not responded to or are not suitable for other treatments. However, there is a lack of spontaneity associated with vacuum devices and the penis may feel cold to the partner.

Penile prosthesis

These are splints, which are inserted surgically into the penis. There are two main types: semi-rigid rods and hydraulic pump devices. They should only be considered after other ED treatments have been tried.

Surgical treatments

Surgery is an option if ED is caused by abnormalities in blood flow in and out of the penis.

Common myths associated with ED

There are many myths surrounding ED. Here are some of the most common myths:

ED is not a serious medical problem. ED should be taken seriously because of the associated impact the condition can have on self-esteem and relationships.

ED is all in the mind. Organic (physical) causes such as heart disease, high blood pressure or diabetes are present in 75% of men suffering with ED. In most cases of ED a combination of both organic and psychogenic causes will be present.

I am/my partner is to blame for my ED. ED is the result of organic or psychogenic causes, or more commonly a combination of both. No one is therefore to be blamed for ED.

ED is an old man's problem. Although the number of men affected increases with age, ED can occur at any age. Age should therefore not be a barrier to accessing treatment for ED.

Ageing causes ED. Ageing does not directly cause ED. However, as a man gets older his blood vessels become narrower reducing the blood supply to various organs. Coupled with a variety of medical conditions this can alter the man's sexual response. It is therefore not unusual for men to notice subtle changes in the erections they experience as they become older. For example, they may notice that it takes longer to achieve an erection and that their erections are not as firm compared to when they were younger.

Loss of sex drive (libido) is the same as erection problems. These are very different medical conditions but are often linked. For example, if a man is experiencing ED and is not able to engage in sexual activity, his libido is likely to reduce. If the ED is then treated and the man becomes more confident in his ability to perform sexually, his libido may increase.

Sex can be bad for the heart. Sexual activity is a form of exercise and is therefore good for the heart. However, it is important that physical fitness is considered before performing any type of exercise. If your health has changed it is important to check that you are physically fit enough to take part in sexual activity.

Tablets taken for ED produce a spontaneous erection. The tablets available for the treatment of ED help men respond to sexual stimulation. They do not produce an erection without such stimulation.

ED is to do with my hormones. As men get older testosterone levels fall. It is extremely uncommon for erection problems to be attributed to a low testosterone level as testosterone controls sex drive rather than erections. If a man is able to produce stubble on a daily basis there will be a sufficient level of testosterone for sexual activity, so other possible causes of ED would need to be investigated.



Erectile Dysfunction (ED) – the facts and the treatment options

When a man experiences ED he can become anxious, question his masculinity and have a lowered self-esteem. ED can also have a significant impact on an otherwise healthy personal relationship with implications for the partner as well as the man suffering with ED.

This leaflet provides some useful information about ED. It explains just how common ED is, the normal erection process, the possible causes of ED, and the solutions that are available to treat the condition.

What is erectile dysfunction (ED) and how common is it?

Erectile dysfunction (ED or impotence) is the persistent inability to achieve or maintain an erection sufficient for satisfactory sexual performance. It is a common problem with at least one in every ten men affected (in the UK approximately 2.3 million men suffer with ED). The likelihood of experiencing ED increases with age and approximately half of all men aged 40-70 will at some time experience some form of ED.

Most men will experience occasional failure to attain or maintain an erection at some stage in their life. The most common causes of temporary erection failure include excessive alcohol consumption, stress and anxiety, and tiredness. The temporary inability to achieve or maintain an erection should not be cause for concern. However, if the problem becomes more persistent, advice should be sought to allow further investigation. If ED is diagnosed there are a number of treatment options available.

Unfortunately, only about 10% of sufferers actually seek treatment, but there is no need to feel embarrassed and suffer, as ED will usually respond well to treatment.

How does an erection occur naturally?

An erection occurs when signals from the brain or direct stimulation of the penis causes the muscle around the arteries in the penis to relax. This relaxation allows more blood to flow into the erectile tissue of the penis. As the erectile tissue fills with blood the veins that normally carry blood away from the penis become compressed, reducing blood flow out of the penis. An erection occurs as the blood flow into the penis is greater than the blood flow out. After orgasm, the penis returns to its flaccid state when the muscle around the penile arteries stops relaxing and constricts. Blood is carried away from the penis by the veins, resulting in fading of the erection.

What are the causes of ED?

There are many possible causes of ED. The causes can be organic (of a physical origin) or psychogenic (originating in the brain). It was previously thought that psychogenic causes were largely responsible for ED. However, it is now known that organic causes are present in 75% of men suffering with ED. In most cases of ED a combination of both organic and psychogenic causes will be evident.

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Organic (physical causes)

ED as a result of an organic cause tends to occur gradually over time and often increases with age. As the natural erection process involves both nerve signals from the brain and dilation (widening) of the penile blood vessels, any condition/disease that impairs this process can cause ED.

Organic causes of ED include:

- Endocrine disorders e.g. diabetes, thyroid disorders, hypogonadism (low testosterone level and reduced or absent sex drive)
- Heart disease e.g. high blood pressure, high cholesterol, angina and heart attack
- Neurological disorders e.g. stroke, multiple sclerosis (MS), Parkinson's disease, spinal cord injury and tumours
- Vascular disorders any condition that narrows the arteries including those of the penis
- Kidney and/or liver disease
- Structural changes or deformation to the penis e.g. Peyronie's disease
- Surgery involving the pelvic region (e.g. prostatectomy) or lower abdomen (colostomy) due to nerve or blood vessel damage
- Excessive drainage of blood from the penis (venous leak)
- Lifestyle factors e.g. smoking, excessive alcohol consumption and recreational drug use
- HIV
- · Side effect of prescribed medication

Psychogenic causes

ED of a purely psychogenic nature is usually sudden in onset. The man may experience erections under some circumstances, for example morning erections. This indicates that physically, the erection process is still working but is being inhibited by other factors.

Such factors include:

- Job or financial stress and anxiety
- Marital conflicts and/or dissatisfaction with the relationship
- · Sexual inexperience or lack of sex education
- Sexual stress and anxiety (fear of failure or letting down their partner)
- Depression
- Sexual boredom
- Change in circumstances e.g. new baby, living with relatives
- Loss of partner (feelings of guilt when beginning a sexual relationship with a new partner)
- Other bereavement or break up
- Psychological trauma and/or abuse

Erection changes associated with ageing

Although ageing does not directly cause ED, normal ageing alters the male sexual response.

- The following changes can be associated with normal ageing:
- Morning erections decrease in frequency
- Sex drive may decrease slightly
- After age 35-40 direct penile stimulation rather than desire alone is often required to obtain an erection
- The erectile response may be delayed due to decreased penile sensitivity
- · Erections may be less firm
- Some men may be able to maintain an erection for longer before ejaculating
- Ejaculation may be shorter and have reduced intensity.
- Orgasm without ejaculation is normal
- After ejaculation the penis returns to its flaccid state more quickly than previously
- · After sexual activity, the interval before a man can get another erection and ejaculate again lengthens

The changes listed above are subtle and for many men will be unnoticeable. Most men find the changes are easy to adapt to providing they have a reasonable expectation of their own body.

Some older men and their partners are able to accept loss of erectile function as a part of ageing and do not want to access treatment for ED. However, other couples are unhappy about losing such an important part of their lives and will want to continue an active sex life into old age.

Your relationship

The treatment options for ED explained later in this leaflet are often only one part of ED treatment. As there are many possible causes of ED, some men or couples also benefit from other forms of support to enable them to resume a fulfilling sex life.

If psychogenic factors or relationship difficulties are present, sex therapy may prove useful in helping couples re-establish a sexual relationship. Other support can be obtained from books and leaflets, from other organisations and through the Internet.

You may find the following references useful:

The Sexual Dysfunction Association, www.sda.uk.net Tel: 0870 774 3571 Men's Health Forum, www.menshealthforum.org.uk Tel: 020 7388 4449 Relate, www.relate.org.uk Tel: 08451 304016

What are the treatment options for ED?

There are a number of options available for the treatment of ED. If appropriate a doctor may prescribe any of the treatments on a private prescription. For items on a private prescription the patient pays for the cost of the treatment and not the standard NHS prescription charge. For men with certain medical conditions such as diabetes, multiple sclerosis, or Parkinson's disease, the treatments are available on the NHS. The following information highlights the key points about each treatment option for ED. The treatment options include:

The Boots Pharmacy + ED Programme:

This is a pharmacist-led service for men aged 30-65 with ED. The programme screens for, and will confirm the diagnosis of ED (if present). It provides an effective tablet treatment and regular reviews are arranged with your Boots pharmacist. The programme is available from selected stores only and an appointment with the Boots pharmacist is necessary. For more information or to find your nearest store please visit boots.com/ED, or call 0845 0708090.

Tablets:

There are a number tablets that can be prescribed for ED. They help men respond to sexual stimulation by relaxing the blood vessels in the penis, although they do not produce an erection without sexual stimulation. Tablet preparations are convenient, discreet, non-invasive and effective in most men with ED. They should be taken about an hour before sexual activity. However, they are not suitable for all men, especially those who take nitrate-containing medicines for chest pains (angina). Tablets taken for ED are generally well tolerated, but as with all medicines there can be some side effects. The most common side effects are headache and facial flushing.

Penile injections:

This involves a small injection into the side of the penis. The injection delivers a drug that relaxes the blood vessels in the penis allowing an increase in blood flow resulting in an erection. Unlike the tablets taken for ED, the injection produces an erection whether or not sexual stimulation is present. The injection acts rapidly producing an erection within 5-20 minutes, which lasts for approximately 60 minutes. Initially the injections are given under medical supervision to establish the correct dose, although men are also taught how to administer the injection correctly. Side effects associated with the penile injection include penile pain, bleeding and bruising. As the injection is an invasive treatment it may not be acceptable to all men and their partners.

Penile pellet:

A pellet is inserted into the urethra (water passage of the penis). The pellet contains a drug, which dissolves rapidly causing an increase in blood supply to the penis resulting in an erection. The pellet works in a similar manner to the penile injection and may be suitable for those patients with a fear of needles or who are unsuitable for tablets. Side effects include penile pain.

Vacuum devices:

Vacuum constriction devices consist of a clear plastic cylinder and a pump that may be hand or battery operated. The devices work by creating a vacuum that draws blood into the penis. An elastic ring is then placed at the base of the penis. This keeps the blood in the penis, allowing a reasonable erection for as long as the elastic ring is left in place.