

Sexual Dysfunction Association

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Injection and urethral treatments for erectile dysfunction (ED)

Erectile dysfunction, or impotence, is the persistent or recurrent inability to attain or maintain an erection sufficient to complete sexual intercourse or another chosen sexual activity. It is very common and **affects at least one in every ten men**. This means that there are an estimated 2.3 million men in the UK suffering from erectile dysfunction. Regrettably, only about 10% of sufferers actually receive treatment. The number of men suffering from erectile dysfunction increases with age.

This factsheet explains how injection and urethral therapy can be used to help men with erectile dysfunction. Other factsheets deal with the subject of oral treatments and vacuum pumps therapy.

Injection therapy

The first drugs commonly used in the UK for erection problems were papaverine and phentolamine, but they were unlicensed for erectile dysfunction, and have been superseded by *alprostadil*. This is identical to a substance called *prostaglandin E1* that occurs normally in the penis and is involved in the natural erection process. Alprostadil has been used as an injection in the treatment of erection problems in the UK since 1994. It does not work as a tablet. In injection form, the alprostadil relaxes the muscles and the blood vessels feeding blood into the penis, allowing the blood flow to increase and be trapped there, so maintaining an erection. Injection therapy is very successful in those men who do not respond to tablets.

The patient (or his partner) is taught by a nurse or doctor how to inject the drug directly into the shaft of the penis when he wants an erection. Erection usually follows within fifteen minutes of the injection. Even though the *thought* of it brings tears to the eyes of some of the strongest men, the procedure is easy to learn and it does not hurt. The erection will last up to 60 minutes, although very occasionally, it will last longer if the dose of alprostadil is too large. The erection tends to go down with ejaculation but if this doesn't happen, the erection may become slightly painful and you will need to reduce it as soon as possible. Doctors recommend exercise to achieve this, such as running up and down stairs or cycling vigorously. If the erection lasts longer than 4 hours, you should go immediately to a hospital casualty unit, as a long delay may cause permanent damage.

Other possible side effects are an occasional pain or burning sensation in the shaft of the penis, or a small nodule in the shaft which disappears if the injection site changes. There have been no reported side effects in a female partner.

Two alprostadil products are available – Caverject or Viridal – and they are 90% successful. The doses should be decided by the doctor. They are available as 5 micrograms (mcg), 10 mcg and 20 mcg. They can only be obtained on prescription.



You should not use alprostadil if you have a severe form of Peyronie's disorder (see fact sheet), have sickle cell anaemia, leukaemia or multiple myeloma, as this may cause a prolonged erection.

MUSE (or Medicated Urethral System for Erection)

This treatment is based on the discovery that the urethra (the tube through which urine is passed) can absorb certain medications, which then pass into the surrounding erectile tissue of the penis, creating an erection. The active ingredient is *alprostadil*, which is identical to the chemical which the body produces naturally in developing an erection. It has been used alternatively as an injection for many years (see above).

It is made as a very small pellet which is put in the urethra using a special disposable applicator. It is pain free. It is best put in just after passing urine, as a moist canal makes absorption of the drug easier. When it works, it will take from 10-20 minutes for an erection to occur and it will last for 30-60 minutes. It can be used twice in 24 hours, but not consecutively. The doses are in 4 strengths: 125 micrograms (mcg), 250, 500 and 1000 mcg. The initial dose is usually 500 mcg, progressing to 1000 mcg, the first dose being decided by your doctor in consultation. It is effective in about 50% of cases.

The side effects are minimal. If you are rough in inserting the applicator, you can scratch the lining of the urethra, which can cause some discomfort or even a speck of blood. This is not harmful. Other (very rare) side effects are light headedness or dizziness (or even very rarely, fainting, usually at the thought of the application). Sometimes, what has been called an alprostadil burning sensation may occur for an hour or two but this should not interfere with intercourse. Very occasionally, your partner may have some internal itching or burning. If your partner is pregnant, it is advisable to use a condom.

If you suffer from sickle cell anaemia, leukaemia or multiple myeloma, you should not use MUSE.

An invitation

..... to enrol as a friend of The Sexual Dysfunction Association. For a small annual subscription you will know that you are contributing to a charity that helps overcome the problems of male and female sexual dysfunction. If you are interested please telephone or write for an application form or complete our on-line registration form.

