THE UROLOGY FOUNDATION

What is Erectile Dysfunction (ED) and how is it managed?

Erectile Dysfunction (ED) or impotence. It is defined as the inability for a man to achieve or maintain an erection suitable for satisfactory sexual intercourse. It is a common condition in men over the age of 40. It has a variety of causes and it is often treatable. Having trouble with erections from time to time is not necessarily ED. However, having ongoing issues with your erection can be a source of stress, anxiety and may lead to marital problems and lack of self-confidence.

More importantly ED can be a sign of an underlying health condition that needs to be diagnosed and treated accordingly. ED is also an established risk factor for heart disease.

Causes of ED

Male sexual stimulation is a complex process that involves the brain, emotions, nerves, hormones, muscles and blood vessels. ED can result from a problem with one or a combination of these. The following are some of the common causes of ED:

- Anxiety or psychological
- Low Testosterone
- Obesity
- Diabetes
- Smoking
- Cardiovascular disease
- High blood pressure
- High Cholesterol
- Peyronie's disease
- Drugs/alcoholism
- Neurological conditions
- Pelvic surgery or injury

How is ED diagnosed?

A urologist or an andrologist takes a full medical and sexual history and performs a thorough clinical examination. The medical and sexual history can reveal diseases or treatments that cause ED. Blood tests and urine tests are also arranged to assess various aspects of your health and to rule out conditions which may be causing your ED. Other specialist tests such as doppler

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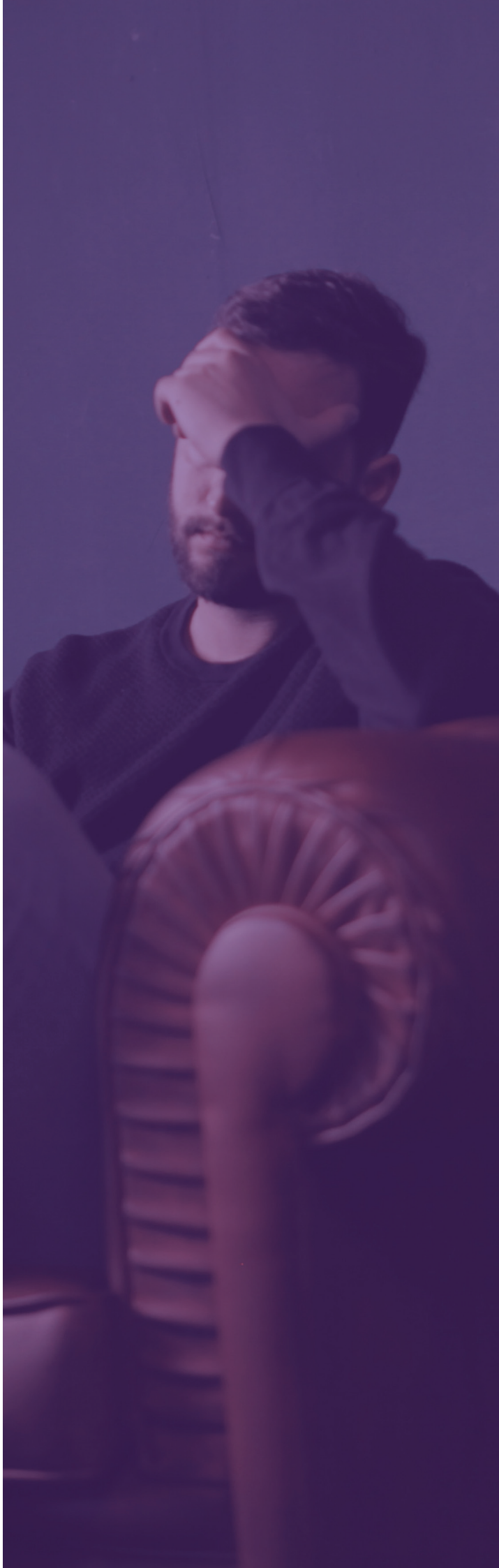

ultrasound scan with a penile injection to achieve an artificial erection, nocturnal penile tumescence test (Rigiscan) can be arranged if required.

Treatment for ED

Treatment for ED is based on the cause and severity of the erectile dysfunction. Any underlying causes are addressed and dealt with accordingly. The pros and cons of each treatment is discussed with the patient taking into consideration their preferences and circumstances.

Lifestyle changes are the first step in the treatment of erectile dysfunction. Lifestyle changes such as quitting smoking, limit alcohol intake, weight loss, physical activity, quitting illicit drugs can help treat and improve erectile dysfunction. Recent studies have found that aerobic exercise, can improve erectile dysfunction.

Oral medications are commonly used and are a successful form of treatment for many men. They include Sildenafil (Viagra), Tadalafil (Cialis), Vardenafil (Levitra) and Avanafil (Spedra). They increase a natural chemical (nitric oxide) in your penis which relaxes the muscles leading to increased blood flow and an erection in response to sexual stimulation.

However, medications do not work in everyone and in some conditions are less effective, such as after pelvic surgery or in poorly controlled diabetics.

Vaccuum erection device (VED) is a non-invasive and effective form of treatment for erectile dysfunction in men who are not keen on taking medications or undergoing surgery. A hollow cylinder tube with a hand-powered or battery-powered pump is placed over the penis, the pump is used to suck out the air inside the tube. This creates a vacuum that pulls blood into the penis resulting in an erection. An elastic ring is applied on the base of the penis to prevent blood escaping from the spongy erectile tissue of the penis in order to maintain the erection.

Other forms of medication for ED include Alprostadil urethral suppositories, creams and injections. Alprostadil suppository (MUSE) involves placing a little nozzle-like applicator into the tip of the urethra (water-pipe) to dislodge a suppository into the urethra. The drug is absorbed into the erectile tissue and leads to an erection after 10 minutes, the erection may last 30-60 minutes when the treatment is effective. Alprostadil cream (Vitaros) is an alternative form of Alprostadil, it is a topical drug applied on to the opening of urethra on the the tip of the penis. Alprostadil injections (caverject), the drug is injected into the side of the penis using a fine needle. The drug is absorbed directly by the spongy erectile tissue of the penis leading to relaxation of the muscles resulting in an erection. Side effects can include minor bruising or pain at the injection site, painful erection , prolonged erection (priapism) and rarely formation of scarring at the injection site.

Some patients develop erectile dysfunction and low sex-drive (libido) as a result of low testosterone levels. Therefore, testosterone replacement therapy might be recommended as the first step or given in combination with other therapies.

Psychosexual counselling is recommended to patients with ED due to stress, anxiety or depression, psychogenic ED. A psychosexual therapist works by supporting the patient and their partner to alleviate any stress or anxiety related to sex.

Surgery

Penile implants or prosthesis are usually the last resort. The surgery involves insertion of a device into the penis. The implants consist of either inflatable (hydraulic) or malleable rods. Three-piece inflatable devices allow a more natural erection where the patient is in control of their erections. However, the malleable rods keep the penis firm at all times but allow bending of the penis.

Inflatable implants have a high degree of patient satisfaction among those who have failed medical therapies. As with any surgery, there's a risk of complications, such as infection, malfunction and erosion.

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THE UROLOGY FOUNDATION

The Urology Foundation is the UK's only charity representing all urological diseases and conditions including prostate, bladder and kidney cancers and non-malignant conditions including incontinence, urinary tract infections (UTIs), erectile dysfunction and kidney stones. We are committed to improving outcomes, quality of life and saving lives through investment in ground-breaking research, training and education programmes, campaigns and awareness. Working with the UK's leading urologists, scientists, nurses and allied health professionals, influencers and decision makers, patients and their families and those with an interest in urology, we are improving the nation's urology care.

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