

Disorders of male sexual function



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Male sexual function has three components:

- 1) **Libido or sexual desire;**
- 2) **Erectile function or arousal; and**
- 3) **Orgasm/ejaculation.**

Libido

Libido in men (and women) is driven by testosterone. Desire disorders may present as hypoactive desire disorder (often lifelong), inhibited desire (may be situational) and desire discrepancy (an increasingly common disorder in couples)

Desire problems in younger men mostly have a psychological basis (often around commitment issues). Older men experience a slow decline in testosterone levels at about one per cent a year from the age of 40. This may not only reduce libido but may also result in a controversial condition called partial androgen deficiency in the ageing male (PADAM). As men age, higher levels of sex hormone binding globulin reduce the amount of bioavailable testosterone.

The clinical symptoms of PADAM are said to be decreased libido, ED, depression, fatigue, decreased muscle mass, decreased bone density and increased visceral fat. Yet men who are depressed may be accused of having PADAM due to the similarity of presenting symptoms.

Testosterone is a requirement for nocturnal erections but appears to play only a minor role in the quality of sexually induced erections. Testosterone, through its receptor sites in cavernosal tissue, helps improve the action of PDE5 inhibitors which otherwise have poor results in hypogonadal men. Treatment with testosterone may increase libido and provides an improved sense of wellbeing. However, it may also aggravate prostate disorders, raise haematocrit and aggravate symptoms of sleep apnoea.

Erectile Function/Dysfunction

Erectile dysfunction (ED) is defined as the inability to achieve and maintain an erection sufficient to permit satisfactory sexual intercourse. ED is a systemic condition often associated with other potentially serious medical conditions, such as coronary artery disease and peripheral arterial disease.

Until the late 1980s, ED was suspected to be mainly psychological in origin. ED is now regarded as a mainly physiological disorder as penile erection is a neurovascular event.

The most common pathological factor for ED is vascular disease, such as that caused by diabetes, hypertension, smoking and hyperlipidaemia. The present worldwide prevalence of over 150 million men with ED is likely to double in the next 20 years, exceeding 300 million men by year 2025, particularly due to the increasing incidence of obesity and diabetes.

The incidence of ED increases with age; smoking; alcohol use; obesity and metabolic syndrome; diabetes; hypertension; hyperlipidaemia; and depression. Some medications, including beta blockers, thiazide diuretics and psychotropic medication, contribute to ED. Asking proactively about ED may expose unknown hypertension, diabetes and ischaemic heart disease as between 39 and 64 per cent of male patients with cardio-vascular disease suffer from ED.

Most doctors are skilled at taking a general medical history but have a level of discomfort in discussing sexual matters. Patients with a sexual problem may have the same discomfort in discussing the problem, so difficulties may not be revealed. However, sexuality may remain important in men and women despite the onset of ill health and the changes of ageing.

Older men require reassurance that changes in their erectile function is a natural process and does not necessarily require treatment other than adjustments to sexual technique. Older men require more stimulation to achieve an erection, have less intense orgasm and reduced ejaculatory volume. Use of condoms can be a problem because of the difficulty maintaining the erection. Repeating the sexual act (refractory period) may require days rather than hours.

Treatment

Initial treatment should be focused on lifestyle changes and management of current medical conditions.

• Oral medication

The introduction of sildenafil (Viagra™) in 1998 heralded a revolution as the first oral medication for ED. Tadalafil (Cialis™) and vardenafil (Levitra™) have since followed. These medications belong to the class of selective PDE5 inhibitors which relax corpus cavernosal smooth muscle. They have proved safe and effective for most causes of ED, except severe vasculogenic and neurogenic ED. They are contra-indicated in men who use nitrate medication or the recreational drug amyl nitrate.

PDE5 inhibitors also have a role in the treatment of psychogenic ED. Each of the three types has the potential for side effects, which include headache, facial flushing, blocked nose and gastric reflux.

• Penile injection

Prostaglandin E1 (PGE1) also known as alprostadil is the medication with the least risk of fibrosis or priapism. PGE1 is prescribed for men where oral medication does not work or is contra-indicated. It is marketed in Australia as Caverject Impulse™, a neat package where the powder is mixed with water and the dose dialed all within the barrel syringe. Combination mixes available through compounding pharmacies use PGE1 and phentolamine (Bimix) or PGE1, phentolamine and papaverine (Trimix). These mixes may have a higher risk of fibrosis and priapism. The treatment of priapism initially involves taking two 60mg pseudoephedrine tablets if the erection remains after two hours.

• Vacuum erection devices

These devices create an erection by extraction of air from a cylinder placed over the penis. The vacuum created causes increased blood flow into the penis that is held by a rubber constriction ring. The technique requires practice and preferably the assistance of a partner.

• Penile implants

Surgically implantable penile prostheses have been in use for 30 years. These days, implants are inserted as the last resort due to the effectiveness of the other ED treatments. A three piece inflatable device (penile rods, scrotal pump and fluid reservoir) gives the best cosmetic and functional result. There are low rates of mechanical failure and infection.

'Treatment should be focused on lifestyle changes and management of current medical conditions'

A note about ED post Radical Prostatectomy

Surgery for prostate cancer is a now a common procedure. If the neuro-vascular bundle on each side of the prostate cannot be saved, then ED will inevitably follow. Treatment with oral PDE5 inhibitors does not work without intact nerves due to the lack of neurotransmitters. Even with intact neurovascular bundles, the return of erectile function may take from six to 36 months to occur (if ever). The quality of erections also depends on the pre-surgery erectile function. Initial treatment is PGE1 injection therapy, however, some men respond early to oral medication. It is important to keep testing with oral medication from time to time because as soon as oral medication becomes effective, injections may stopped. There is some evidence of benefit being on continuous oral medication in the presence of neuropraxia due to the positive effect of PDE5 inhibitors on the endothelium within the cavernosal tissues.

Orgasm/ejaculation

Male ejaculation disorders are premature or rapid ejaculation, inhibited or delayed ejaculation and retrograde ejaculation.

Premature ejaculation (PE) is the commonest disorder, though can be misdiagnosed due to a common male misconception of how long the intra-vaginal ejaculation latency time (IELT) should be. There is some consensus that ejaculation less than 60 seconds after penetration represents true PE. Ejaculation just before or on penetration can be an extremely distressing condition.

PE can be primary or secondary. Primary PE arises in the ejaculation centre in the medial pre-optic nucleus of the hypothalamus and is

no longer regarded as a purely psychological problem. However, it can be complicated by a secondary performance anxiety that often complicates the situation. Secondary PE may be caused by stress and anxiety, relationship problems or ED.

Men with PE are often reassured with explanation of normal IELT. The traditional behavioural techniques such as the stop-start and squeeze techniques remain popular treatments. The ejaculation inhibiting effect of some of the SSRI anti-depressant medication can be a successful treatment in severe cases.

Inhibited ejaculation is usually an issue with sexual intercourse rather than with masturbation. It can arise where arousal from penetrative intercourse does not match the arousal obtained from masturbation. This condition may be seen in certain personality types. If a man is unhappy in a relationship, and particularly if his partner wishes to conceive, then he may be unable to ejaculate in that situation.

Retrograde ejaculation often occurs after surgery for a tight bladder neck or benign prostate hypertrophy. Neurological conditions and diabetes may decrease bladder neck tightness where the sensation of orgasm is intact but the semen is directed into the bladder.

Sexual counselling: A common problem

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Childhood experiences, developmental attitudes and philosophy, religious training and the concealed fantasies of parental behaviour and marital intimacy may be important ingredients in any one or all of the phases of sexual activity.

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Generally, we can assume that if marital partners ever spoke at depth about these issues in the early stages of their relationship, they rarely speak of them later. They tend to act on unspoken assumptions with little in-depth dialogue and with little sympathy for the way the mind, mood and body of each person may operate at different stages of a relationship, in different situations and in the different phases of sexual involvement.

Counsellors and sexual therapists give partners a vital and safe environment free from commentary and direction to explore these important issues, with the added knowledge and perspective that the counsellor/therapist can provide. They are able to designate where the problem is; what meaning and emotion has been loaded on it; what the underlying fantasies and anxieties are; and how the person can appraise her individuality and intimacy needs in the context of her marital relationship.

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