CHAPTER 23

Sexual problems

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Summary

This chapter outlines the difficulties in defining sexual dysfunction, in particular in women. It describes the epidemiology of sexual problems, drawing on original research by the author's group which has shown that many problems remain undetected in primary care. Specific helpful advice on taking a history, defining the problem and undertaking investigations is followed by a summary of the evidence for various interventions for problems of desire, arousal, orgasm and painful intercourse.

People consulting their family doctors are more prepared than ever before to ask for help with sexual problems. Furthermore, the English *National Strategy for Sexual Health and HIV* acknowledged sexual fulfilment and equitable relationships as 'essential elements of good sexual health' and called for consistent standards of care to ensure appropriate management of patients with sexual dysfunction (Department of Health, 2002). Liberalisation of sexual attitudes, behaviour and lifestyles since the 1960s and the introduction of new treatments for sexual dysfunction since the 1980s, particularly for men, have made it more acceptable to seek help for sexual difficulties. Nonetheless, although most people with sexual problems regard their general practitioners (GPs) as appropriate sources of help, many remain uncertain whether or not they have a problem or even whether to bring up the subject (Nazareth *et al*, 2003), and GPs do not always have the skill or time to treat sexual disorders (Humphery & Nazareth, 2001).

Classification

There is considerable debate about how to measure or define sexual difficulties. Part of the problem lies in the definitions of 'normality', which have evolved with changes in attitudes and behaviour in society. Whereas

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behaviours such as masturbation or sexual contact between people of the same gender were once seen as sexual perversions (Davenport-Hines, 1990), they are now regarded as part of the range of normal sexual response. Nevertheless, defining disorder remains subjective and depends on the values, wishes and sexual knowledge of each person and his or her partner. For example, when is ejaculation considered premature? How quick is too quick? Although distress about the problem is often a guide to, or a prerequisite for, the diagnosis of a sexual problem, distress may occur exclusively in the partner. For example, in women with low sexual desire or in men who ejaculate quickly, it may be only the partner who complains and is responsible for the help-seeking that transpires. Furthermore, concepts of usual sexual behaviour in women are changing and there have been claims that the pharmaceutical industry is building a pseudo-science out of female sexual dysfunction (Moynihan, 2003). A woman-centred definition of sexual problems has recently been recommended as an alternative to concepts of sickness and health (Tiefer, 2000; Moynihan, 2005) and international classifications of sexual dysfunction are being reviewed (Basson *et al*, 2004). In contrast to men, women's sexual function appears to be more responsive than spontaneous and more dependent on emotional closeness with their partner (Basson, 2001). In fact we need further evidence that the common complaints of lack or loss of sexual desire in *either* men or women are impediments to satisfying sexual relations or that a medical approach is indicated. Reduced sexual interest or response may be an adaptation to stress or an unhappy relationship (King *et al*, 2007).

With these caveats in mind, Table 23.1 summarises the commonest classification of sexual problems, that of DSM–IV (American Psychiatric Association, 1994). The two international classification systems, DSM–IV and ICD–10 (World Health Organization, 1992), have similar systems of classification. Both emphasise that aetiological factors may be psychological, or due to a combination of psychological and medical reasons but where the psychological predominate. This means that careful attention is needed to exclude purely medical factors or substances (prescribed, recreational or illicit) that may be causing the sexual dysfunction. DSM–IV and the research edition of ICD–10 (World Health Organization, 1993) also stipulate that the sexual disorder has to cause marked distress or interpersonal difficulty and that the dysfunction is not accounted for by another major mental disorder, such as anxiety or depression.

Epidemiology

Sexual dysfunction is common but prevalence estimates vary because of doubts about the validity of diagnoses, particularly in women. In a study of general practice attendees in London, up to 40% of women had a diagnosable sexual dysfunction (Table 23.2). However, when those with lack or loss of sexual desire were excluded, prevalence fell to 27% for

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Table 23.1 Difficulties of sexual function not explained by medical disorders

Problem area	Condition	Characteristics
Desire	Hypoactive sexual desire disorder	Persistently or recurrently deficient (or absent) sexual fantasies and desire for sexual activity
	Sexual aversion disorder	Persistent or recurrent extreme aversion to, and avoidance of, all (or almost all) genital sexual contact with a partner
Arousal	Female sexual arousal disorder	Persistent or recurrent inability to attain, or maintain until completion of sexual activity, an adequate lubrication/swelling response of sexual excitement
	Male erectile disorder	Persistent or recurrent inability to attain, or maintain until completion of sexual activity, an adequate erection
Orgasm	Female orgasmic disorder	Persistent or recurrent delay in, or absence of, orgasm following a normal sexual excitement phase
	Male orgasmic disorder	Persistent or recurrent delay in, or absence of, orgasm following a normal sexual excitement phase
	Premature ejaculation (PE)	Persistent or recurrent ejaculation before, on, or shortly after penetration and before the person wishes it
Pain	Dyspareunia (not due to a medical condition)	Recurrent or persistent genital pain associated with sexual intercourse in men or women
	Vaginismus (not due to a medical condition)	Recurrent or persistent spasm of the musculature of the outer third of the vagina that interferes with sexual intercourse. There may be associated spasm of the internal adductor muscles of the thighs

(Based on DSM–IV (American Psychiatric Association, 1994).

Table 23.2 Prevalence (%) of sexual dysfunction

Sexual dysfunction (ICD–10 classification)	Men	Women
Lack or loss of sexual desire	6.7	16.8
Sexual aversion	2.5	4.1
Failure of genital response		
Male erectile dysfunction (failure at insertion during intercourse)	8.5	
Female sexual arousal dysfunction		3.6
Orgasmic dysfunction		
Male orgasmic dysfunction (inhibited orgasm during intercourse)	2.5	
Premature ejaculation (at insertion during penetration)	3.6	
Inhibited female orgasm (during intercourse)		18.6
Non-organic vaginismus	11.3	4.5
Non-organic dyspareunia	1.1	2.9
At least one diagnosis	21.7	39.6

Data from Nazareth *et al* (2003).

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women and 16% for men (Nazareth *et al*, 2003). A subsequent study in the same setting in women only confirmed the perception that, for many, loss of sexual desire was mainly a response to personal or relationship difficulties (King *et al*, 2007). Thus, careful assessment of women with loss of sexual desire is necessary in order to be clear about who it is who complains and the origins of the distress.

Although most medical or psychological disorders tend to be commoner in general practice attendees than people in the general population, this does not seem to be the case with sexual dysfunction. An oft quoted study of a national probability sample of people in the USA reported overall rates of 43% for women and 31% for men (Laumann *et al*, 1999). However, population studies are often unable to use detailed diagnostic criteria, which may explain the higher figures (Mercer *et al*, 2003). In Laumann *et al*'s study and the one in UK general practice (Nazareth *et al*, 2003), sexual problems were associated with older age and poorer physical health. Reporting a sexual problem was also associated with greater psychological distress in the latter study.

Detection and screening

A very large number of questionnaires designed to detect sexual problems are available (David *et al*, 1998) but few are practical to use in general practice because they are either too long or specific. Once a sexual problem has been detected, however, there are one or two instruments that may be helpful in defining the problem more specifically. For men, there is the International Index of Erectile Function (Rosen *et al*, 1997), which is a short measure of mainly erectile function, or the Brief Sexual Function Questionnaire for Men (Reynolds *et al*, 1988), which takes a more comprehensive approach to the range of possible sexual difficulties. For women, two instruments that might be considered are the McCoy Female Sexuality Questionnaire, which assesses sexual interest and responsiveness (McCoy & Matyas, 1996), and the Self-Report Assessment of Female Sexual Function (Taylor *et al*, 1994), which is adapted from the Brief Sexual Function Questionnaire for Men and is the only questionnaire to be validated in post-menopausal women.

Taking a sexual history

As for all clinical complaints, it is important to know how long the difficulty has been present, in which circumstances it improves or worsens and to what extent the preferred sexual life is impaired. Other factors that might be considered in a brief sexual history are:

- Is the problem lifelong or has there been a period of satisfactory sexual function?
- Is the difficulty situational? For example, is there normal function in masturbation but difficulties with partners?

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- What are the circumstances in which sex is attempted? For example, is there adequate privacy?
- Are there any particular factors in the sexual relationship that make it difficult? For example, is the patient guilty, resentful or fearful when with a partner?
- When concern about sexual drive is not the presenting problem, it is still useful to ask whether interest in sex has changed and, if so, whether it is global or specific to a particular partner(s) or setting(s).

Given more time, a GP might wish to explore the patient's:

- sexual development and experiences in adolescence and young adulthood
- sexual function in previous relationships
- experiences of sexual trauma in childhood or later life
- sexual orientation.

If GPs feel confident they might tactfully explore the patient's sexual fantasies. However, this can be tricky for them and the patient alike and embarrassment (particularly the GP's) is to be avoided at all costs, as nothing is more likely to hinder a frank consultation. Sexual fantasies may provide an indication of whether there is a major divide between the patient's actual and desired sexual behaviour or even whether a paraphilia (sexual deviation) is behind the problem. Current prescribed and recreational drugs need to be considered (see below).

Investigations

The simplest screening investigations in men are serum testosterone and sex hormone binding globulin. They are mainly useful when there is low sexual drive and/or testicular abnormality (e.g. low volume) on examination. The so-called androgen index, which is the ratio of serum testosterone to sex hormone binding globulin, should exceed 30%. If it does not, it suggests there is insufficient free, or unbound, testosterone in the plasma for full physiological activity. Serum testosterone is unlikely to be low in erectile dysfunction or any other disorder when sexual drive is unaffected.

The most productive initial test in women is serum prolactin level, which if raised may be related to low sexual drive and requires further investigation. The normal range for serum testosterone in women is not yet well delineated.

Prescribed drugs

The commonest medications to impair sexual function are those that affect the dopamine, noradrenaline and serotonin pathways in the brain (pathways related to the sexual response) and those that affect endocrine function (particularly exogenous steroids) or vascular function. Contrary to popular belief, antihypertensive drugs (including the older generation of drugs,

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developed from 1970 onwards) have little specific impact on sexual function (Beto & Bansal, 1992). If a side-effect is suspected, judicious reduction in dosage of the offending drug may be worth a try, but this is not always possible without losing adequate control of blood pressure. Sildenafil (see 'Erectile dysfunction', below) may be useful in such circumstances.

Although antidepressants affect sexual arousal and orgasm, it is difficult to decide whether the drugs, as distinct from the depressed mood, are impairing sexual responsiveness. Whatever the reason, it is risky to reduce or withdraw antidepressants in order to reduce sexual dysfunction because of the possibility of self-harm or other adverse effects of the depressive illness. Although a syndrome of low arousal and erectile dysfunction is popularly believed to persist *long after* courses of selective serotonin reuptake inhibitors, the evidence for this is hard to accumulate, as the problem will not usually appear in post-marketing surveillance studies of people currently taking the drug. Again, sildenafil may be useful.

Management of common sexual problems

Unsurprisingly, the approach to management of sexual dysfunction involves medical or psychological treatments or a combination of both. The pioneers of sexual therapy, William Masters and Virginia Johnson, who eventually became famous enough to appear on the cover of *Time* magazine in 1970, were the first to develop a short, intensive sex therapy for couples that combined sexual education with a mainly behavioural intervention aimed at reducing anxiety about sexual performance and increasing the focus on mutually pleasurable sexual arousal (Masters & Johnson, 1970). However, there is little evidence for the effectiveness of their approaches. In fact, despite their long history, psychological treatments have considerably less evidence of effectiveness than physical treatments for sexual dysfunction. Furthermore, research into the effectiveness of psychological treatments has been declining. The principal reasons for this gap in the evidence are an apparent low priority for funders of research, particularly given the advent of physical therapies, and the relative complexity of the undertaking. Estimating efficacy of a complex psychological intervention for a condition that may be the result of physical, psychological and cultural factors is difficult. However, there is also a lack of adequate, testable theories about psychological mechanisms; in particular, there is a lack of evidence for the efficacy of the various components of sex therapy (Weiderman, 1998). However, there are grounds for assuming that cognitive–behavioural therapy or interpersonal psychotherapy, both of which have evidence for their efficacy in other related domains, are effective in this one.

Erectile dysfunction

Erectile dysfunction is the inability to initiate or sustain a penile erection hard enough for penetrative sex until orgasm. The dysfunction may

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depend on the type of penetration attempted, be it oral, vaginal or anal. The phospohodiesterase-5 inhibitor sildenafil has become the first line of treatment (*Drugs and Therapeutics Bulletin*, 2004). By inhibiting breakdown of cyclic guanosine monophosphate in penile tissues, it prolongs smooth muscle relaxation and facilitates erection. Side-effects are headache, flushing of the skin, stomach upsets and nasal stuffiness. However, only 1% of men stop taking the drug because of such effects (Goldstein *et al*, 1998). The blue visual tinge that sometimes occurs is due to its weak action on phosphodiesterase-6 activity in the retina. Although response rates against placebo in clinical trials were above 80%, in clinical practice its efficacy is about 50% (Morgentaler, 1999). Nitrate drugs are the main contraindication as, in combination with sildenafil, they may cause profound hypotension.

Tadalafil is another phosphodiesterase-5 inhibitor, with a half-life at least twice that of sildenafil and equal efficacy (Carson *et al*, 2004). Its potential advantage is that it is effective for up to 36 hours after dosing, a longer effect than for sildenafil. Vardenafil has equivalent efficacy and duration of action to sildenafil (Markou *et al*, 2004).

The ready availability of these drugs means that major psychological factors are often overlooked or bypassed when they are prescribed. Although sildenafil may be helpful as an adjunct to psychological treatment for younger men with erectile dysfunction, my clinical impression is that men easily become anxious about initiating sex without it. The drug also has street value and is misused by men with normal erectile function (Smith & Romanelli, 2005).

Psychological management focuses on the almost universal performance anxiety (a form of stage fright), challenges myths about sexual performance, educates about sex, emphasises the negative consequences of avoidance, encourages exposure to sexual situations and helps the man to distance himself from his distressing thoughts about inadequacy or failure. When performance anxiety is very high, however, sildenafil can reduce tension enough to encourage relaxation and help the man to distance himself from his anxious thoughts. Sometimes it may be helpful to bring in the partner, who may have unrealistic expectations of the man's sexual performance or blame herself or himself for the difficulties.

Hypoactive sexual desire in women

Lack of sexual desire is the commonest reason women seek help for sexual dysfunction (Warner *et al*, 1987). It is associated with anxiety, depression, discord with the spouse or partner (Dunn *et al*, 2000) and use of psychotropic medication (Segraves, 2002). There is a persistent lack of sexual thoughts or fantasies and desire for a partner, which leads to personal distress. The diagnosis may not apply to women who lack desire in certain situations such as marital conflict or at times such as menstruation but not at others. Nor is it a disorder when due simply to an imbalance between the woman's desire and that of her partner (Basson *et al*, 2000). Loss of sexual desire may

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occur in the year after childbirth, although few affected couples regard it as a serious problem (Dixon *et al*, 2000).

Sildenafil has no role in women with arousal disorder (Berman *et al*, 2003). However, androgens are responsible for sexual drive in women as well as men (Shifren, 2004) and testosterone patches appear to have beneficial effects on hypoactive sexual desire in postmenopausal women (Buster *et al*, 2005) and possibly even in older premenopausal women (Goldstat *et al*, 2003). However, use of testosterone in women runs the risk of masculinising side-effects (Modelska & Cummings, 2003). Furthermore, the normal physiological range of serum testosterone in women is still unclear. Hormone replacement therapy enhances sexual function in postmenopausal women through its action on the vaginal epithelium and the vulval and clitoral erectile tissues. Tibolone, a synthetic steroid that has oestrogenic, progestogenic and androgenic activity, is used to treat menopausal symptoms and may enhance sexual function in postmenopausal women (Modelska & Cummings, 2003).

Psychological therapy for women with low sexual desire, and their partners, focuses on improving communication, dealing with anger and resentment and the identification of insecurity (Bancroft, 2002). Couple therapy may also take the form of a systemic approach to improve sexual desire in long-term relationships (Clement, 2002). Although these therapies are widely used as pragmatic approaches, little is known about their efficacy. Cognitive–behavioural therapy may enable the woman to identify and manage negative thoughts about her sexual feelings, let go of psychological control, address beliefs about her attractiveness and responsiveness as a partner and manage her anxiety about love-making. These approaches need not be highly complex and considerable relief can be experienced by women who are helped to recognise that their thoughts do not define them or the nature of their sexual lives, and can be challenged (Hayes & Smith, 2005).

Orgasmic disorders in men

Premature ejaculation

A common sexual problem in men is ejaculation before, on or shortly after penetration, before he wishes it and over which he has little or no voluntary control (McMahon *et al*, 2004). The aetiology of most cases of premature ejaculation is unclear; potential physical causes are chronic prostatitis, neurological disease, pelvic injury, vascular disease, prostatic hypertrophy and hypogonadal hypertrophy (Richardson *et al*, 2006). Premature ejaculation may occur when the man is highly sexually aroused and/or anxious. It may be primary or can begin after years of normal sexual function. Rapid ejaculation is a process that is likely to be selected for in evolution and it seems that primary premature ejaculation in men may simply be one extreme on a physiological spectrum which impairs sexual pleasure and sometimes prevents insemination.

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Medical approaches to premature ejaculation are daily, or as needed, treatment with serotonergic antidepressants. Evidence from randomised trials shows little difference in efficacy between sertraline, fluoxetine, paroxetine and clomipramine (Mendels *et al*, 1995; Waldinger *et al*, 1998; Montague *et al*, 2004). Nefazodone, citalopram, fluvoxamine and mirtazapine are ineffective and may be helpful for treatment of depression in men *not* wanting ejaculatory impairment (Montejo *et al*, 2001; Montague *et al*, 2004). Intermittent administration (on the day of intercourse) is as effective as daily administration for most men (Kolomaznik, 2004). I find low-dose clomipramine (10–20 mg daily) is effective, with minimal side-effects. Sildenafil is not helpful but topical anaesthetics may be, such as lidocaine or prilocaine cream (2.5 g applied 20–30 min before sex) (Montague *et al*, 2004).

A behavioural technique developed by Masters and Johnson is the squeeze technique, when the penis is pressed lightly just below the glans, inducing a reflex that retards ejaculation. In the stop–start technique (Semans, 1956; Kaplan, 1974) the man stops moving or withdraws his penis when close to orgasm. However, there is little evidence for efficacy of either the squeeze or stop–start technique. Cognitive–behavioural therapy with a particular focus on anxiety management is useful but good evidence for efficacy is lacking. Developing increased tone in the pubococcygeous muscles (Kegel exercises, in which the man clenches his perineal area as if to stop the flow of urine) may improve ejaculatory control (La & Nicastro, 1996) but no definitive trial has been published (Richardson *et al*, 2006).

Retarded ejaculation and anorgasmia

Delayed is a much less common dysfunction than early orgasm. Sufferers include men who can never achieve orgasm, those who reach orgasm (or emission without orgasm) only when asleep, those who reach orgasm only in masturbation and those who are orgasmic with a partner but only during non-penetrative sex. Causes include testosterone deficiency, spinal cord injury, pelvic floor injury or disease, diabetes mellitus, a number of prescribed drugs, severe anxiety, lack of desire for the partner, and other psychological factors, such as recurrent obsessive and compulsive thoughts and behaviours in men who need to feel emotionally in control. It is also more prevalent with increasing age (McMahon *et al*, 2004).

Drugs that facilitate ejaculation act via central dopaminergic or anti-serotonergic mechanisms. Although alpha-adrenergic agonists such as phenylpropolamide, pseudo-ephedrine and ephedrine have been suggested, their efficacy is uncertain (Jannini *et al*, 2002; McMahon *et al*, 2004). Complete anorgasmia is a rare and usually primary condition that is also unlikely to respond to drug treatment, unless occurring in men with spinal cord injuries (Kamischke & Nieschlag, 2002).

Delayed ejaculation or anorgasmia that is not secondary to testosterone deficiency or other identified physical causes may respond to increased stimulation from a vibrator applied to the frenulum area of the penis.

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Achieving an orgasm first in masturbation can facilitate orgasm later, when with a partner. If he has a partner, the man is encouraged to reach orgasm in his or her presence and then begin insertive sexual intercourse just before or at the point of ejaculation. There are many published case reports on psychodynamic, behavioural and cognitive approaches to retarded ejaculation (e.g. Catalan, 1993) but little empirical evidence to support any particular treatment (McMahon *et al*, 2004).

Sexual arousal disorder in women

This is a disorder in which there is lack of mental excitement or interest and deficient genital engorgement and vaginal lubrication. There may be two subtypes of women with arousal dysfunction. In the first and apparently more common subtype are women who seem unaware that physical arousal is occurring. In the second are women who find arousal unpleasant (Carson *et al*, 2004). The main physical aetiologies are vascular impairment in disorders such as diabetes mellitus and changes associated with reduction of oestrogen at the menopause (Berman *et al*, 1999).

Pharmaceutical industry trials of sildenafil involving about 3000 women have produced mixed results and Pfizer has not pursued a licence for the drug in women (Mayor, 2004). Two small trials have suggested that sublingual administration of apomorphine may be helpful (Bechara *et al*, 2004; Carson *et al*, 2004).

Psychological approaches have concentrated on the woman's relationship with her partner or on issues of loss in terms of menopausal or surgical changes in later life. Individual approaches which focus on relaxation and self-focusing to reduce anxiety are also used. For example, use of a vibrator, alone or with a partner, may be helpful in bringing about orgasm in some women. However, qualitative research has shown that women may be less concerned with achieving orgasm through heterosexual intercourse than with pleasing their partner (Nicolson & Burr, 2003).

Vaginismus

An inability to allow vaginal penetration because of involuntary spasm of vaginal and adductor muscles of the thighs may occur as a primary problem in women who have never achieved a satisfactory penetrative sexual relationship or may occur after sexual assault or other trauma. There are no known physical causes and the exact psychological aetiology is unknown. Sexual arousal and interest are often normal but the woman may dislike or feel sensitive about her body, particularly the perineal area and its functions. It can be difficult to distinguish from dyspareunia (Meana *et al*, 1997).

There are no drug treatments for vaginismus, although vaginal lubricants may help penetration. Behavioural treatments are offered on the basis that the muscle spasm appears to be a phobic response to a normal stimulus. The woman can be helped by encouraging her to view her genital area in a mirror and teaching her to examine herself. We have had good results

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with this desensitisation approach and quite rapid improvements may occur. There is little good trial evidence for the approach, although one trial comparing desensitisation using dilators or in imagination showed both were helpful (Schnyder *et al*, 1998). We avoid the use of dilators, as the term itself implies there is something narrow or constricted about the vagina that requires widening, when this is not the case. Unfortunately, a Cochrane review of only two randomised trials of treatments for vaginismus published up to 2002 (McGuire & Hawton, 2003) showed no effectiveness for any particular type of intervention.

Guidelines for the management of sexual dysfunction

There are many national and international guidelines, recommendations and standards available for the treatment of sexual dysfunction and associated problems, the vast majority of which apply only to men. These range from management of erectile dysfunction in the UK (Ralph & McNicholas, 2000) to premature ejaculation in the USA (Montague *et al*, 2004) and the UK (Richardson *et al*, 2006). General guidance on the management of sexual dysfunction in women was developed in New Zealand and published in the *American Family Physician* (Phillips, 2000).

Key points

- Sexual dysfunction is common but prevalence estimates vary because of doubts about the validity of diagnoses, particularly in women.
- Reporting of sexual problems is associated with psychological distress; most problems go undetected in primary care.
- Structured questionnaires are not recommended for screening but may help in defining a problem once detected.
- In men with low sex drive, serum testosterone and sex hormone binding globulin may be useful tests.
- In women with low sex drive, prolactin levels should be measured.
- Psychological treatments have considerably less evidence of their effectiveness than physical treatments for sexual dysfunction.
- The phospohodiesterase-5 inhibitor sildenafil has become the first line of treatment for erectile dysfunction.
- Premature ejaculation may respond to a selective serotonin reuptake inhibitor.
- Cognitive–behavioural therapy may help women identify and manage negative thoughts about sexual feelings, and reduce anxiety about love making.

Further reading and e-resources

Geneva Foundation for Medical Education and Research, Sexual dysfunction: Guidelines, reviews, statements, recommendations, standards, http://www.gfmer.ch/Guidelines/Sexual_dysfunction/Sexual_dysfunction_mt.htm

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