

ABC of sexual health

Sexual problems of disabled patients

Clive Glass, Bakulesh Soni

Almost 4% of the UK population have some form of physical, sensory, or intellectual impairment—almost 2.5 million people. Many of these disabling conditions can produce sexual problems of desire, arousal, orgasm, or sexual pain in men and women. Sexual difficulties may arise from direct trauma to the genital area (due to either accident or disease), damage to the nervous system (such as spinal cord injury), or as an indirect consequence of a non-sexual illness (cancer of any organ may not directly affect sexual abilities but can cause fatigue and reduce the desire or ability to engage in sexual activity).

The two main points for consideration are how disabling conditions affect sexual function and behaviour and which sexual difficulties most commonly arise.

Effects of disability on sexual function

Women who undergo radical mastectomy or a disfiguring trauma often report concerns about their femininity and self image such as feelings of lowered self worth or the fear that men will find them less attractive. Similarly, young men with erectile dysfunction often avoid meeting potential partners because of their embarrassment over their inability to perform.

“Sexuality” describes how people express their view of what is sexual. That awareness is the result of all the physical, emotional, intellectual, and social factors that have influenced their development up to that point in their life. Defining sexuality as wider than just physical function is particularly important for people with disabilities. A person who is not able to use part of his or her body still has an equal right to full sexual expression.

Congenital or acquired disability

Congenital or birth impairments often affect all aspects of sexual development, and lack of privacy and independence in daily living means adolescents often miss out on normal sexual experiences. In contrast, an acquired disability may have different implications depending on when it happened. Impairments early in life often produce low social and sexual confidence, whereas patients who become disabled in adulthood are much more aware of what has actually been lost. While the degree of adjustment to either form of impairment may be no different, the process of adjustment is different. How people view their disability and who they see as responsible for managing the effects of the condition greatly influences their ability to cope.

Hidden impairment

Patients with an impairment that is hidden from others but which affects continence or sexual function often find the situation unbearable. People with spina bifida and perineal paraplegia often walk without apparent difficulty but experience problems with sexual function and with controlling their bladder and bowel. The unpredictability of control often leads them to avoid social mixing, therefore increasing their isolation. People with disabilities often present with low self confidence and a poor body image, and so clinicians should not confuse the severity of a condition with the severity of its impact on the patient.



Key questions in cases of disability

Present condition

- Has the person congenital or acquired disability?
- Is the disability static or deteriorating?
- Is the disability observable by other people?

Effect of condition on sexuality

- Does the disability effect sexual function or sexuality?
- Does the disability impair cognitive or intellectual ability?
- Are there associated iatrogenic factors?
- Is fertility the principal concern?



Patients with an impairment that is hidden from others but which affects continence or sexual function often find the situation unbearable (Detail from *Boors Carousing* (1644) by David Teniers the Younger)

Men with cardiac difficulties such as angina often present with sexual problems because they are worried about bringing on an attack if they attempt lovemaking; Women with joint difficulties (such as rheumatoid arthritis and osteoporosis) may find sexual positioning painful and so avoid activity.

Deteriorating conditions

In most cases of trauma patients experience a loss that does not deteriorate, such as spinal cord injury or amputation. However, some conditions like multiple sclerosis do deteriorate (in either a stepwise or gradual manner), which requires mental adjustment to the initial diagnosis and to its reappraisal as the condition worsens. Sexual dysfunction may occur in multiple sclerosis initially as a direct result of demyelination of the nerve and may also be the result of indirect effects as the condition deteriorates. There may be problems with other organ systems as well as fatigue, anxiety, depression, and, indeed, altered desire of the patient's partner. Disability services and general practitioners must address the sexual needs of not only the patients but also their partners at times of need.

Mental impairment

Some conditions such as Huntington's chorea and traumatic brain injury may alter a patient's ability to think in a reasoned way. Injury to the reticular activating system of the pons and midbrain slows arousal, whereas injury to the frontal lobes may result in promiscuity because of reduced inhibition. Indirect effects of brain injury, such as alteration of endocrine function (for example, post-traumatic hypopituitarism), can also affect sexual drive and arousal.

Those with learning difficulties often have problems developing an understanding of their sexual identity. This may be a direct consequence of their learning impairment or a result of overprotection by families. Parents and carers often feel uncomfortable with a child's developing sexual behaviour, possibly because of fear of exploitation or because of their own lack of understanding or acceptance of the child's sexual needs. The patient's general practitioner is often the person to whom family members first mention their worries or may be the first to raise the issue.

Common sexual difficulties

People may have never had a specific sexual experience (primary impairment) or may have become unable to continue with their sex life (secondary impairment). Primary functional impairments—such as a man's inability to get an erection or to ejaculate or a woman's pain, inability to allow penetration, or anorgasmia—are more common among patients with congenital disabilities or those of early onset and are often hard to resolve. Men are more likely to present than women, possibly reflecting cultural perceptions of the importance of sexual performance and, now, the greater range of treatment options available.

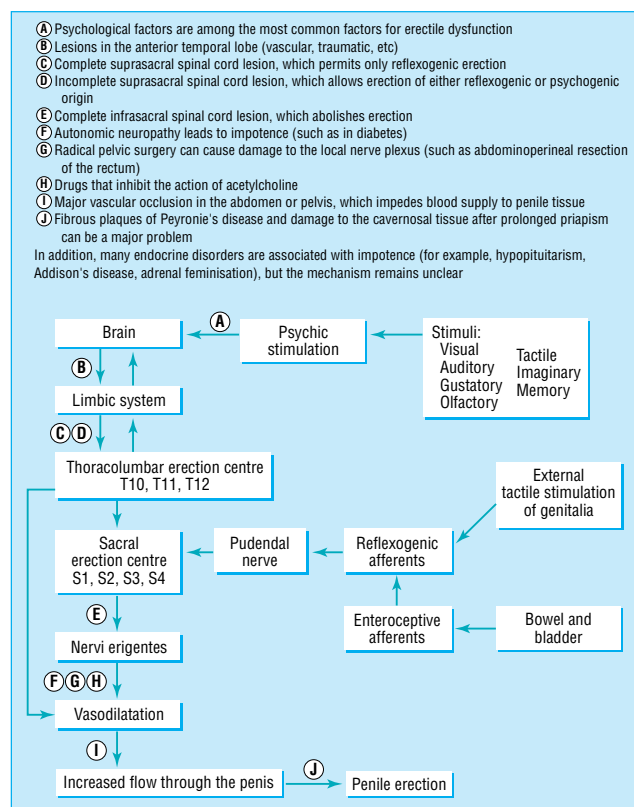
Sexual function and arousal in men and women occur in response to reflexogenic genital stimulation or psychogenic desire in those with intact sexual drive mechanisms. Those with brain or spinal cord injury, or whose injury or disease process affects the spinal cord, experience partial or complete loss of sexual functions. They require comprehensive assessment of the level and degree of damage to the brain and nerve cord and the damage to upper and lower motor neurones (by testing the bulbocavernosal and anal wink reflexes; see earlier article by Dean). In neurological terms male erection is similar to the female vasocongestive response and lubrication, and male ejaculation is similar to female contraction of the pelvic floor, perineum, and anal sphincter.

Assessing sexual problems in disabled patients. Do I refer for sexual support?

| Mainly psychological cause of problem | Mainly organic cause of problem |
|---|--|
| <ul style="list-style-type: none"> ● Acute onset ● General relationship with partner (excluding sexual problem) is poor (refer to Relate for appropriate counselling) ● Symptoms not consistent in all situations ● Major life events (births; deaths; potential or actual change in relationship, health, job) often present ● Coexisting problem with mental or physical health rarely present ● Men with erectile dysfunction have nocturnal or early morning erections ● Can respond to self stimulation ● Commonly aged < 50 years ● Genitalia (including prostate) and secondary sexual characteristics seem normal ● Normal results from investigations* ● Refer to psychosexual services for further help | <ul style="list-style-type: none"> ● Generally slower onset ● Good, reasonably harmonious relationship with partner ● Symptoms consistent in all situations and with all people ● Major life events rarely present ● Coexisting problem with mental or physical health common ● No nocturnal or early morning erections in men with erectile dysfunction ● No response to self stimulation ● Commonly aged > 50 years ● Genitalia and secondary sexual characteristics show abnormal structure or development ● Abnormal results from investigations* ● Refer to suitable specialist for abnormal genitalia and coexisting health problems |

*Full blood count; urea and electrolytes; urine analysis; liver function; thyroxin, glucose, and sex hormone concentrations

Adapted from Sefton psychosexual advisory network



Causes of erectile dysfunction

Effects of drugs

Many disabled people take drugs to control conditions associated with their disability or for pre-existing conditions. Drugs prescribed for medical conditions account for about 25% of cases of erectile dysfunction, and 10% of commonly prescribed drugs produce erectile dysfunction. Overuse of other addictive drugs such as alcohol, tobacco, and cannabis can also disrupt sexual functioning.

Erectile dysfunction

Loss of erectile function is the commonest sexual problem among disabled patients. Even in cases of a clear physical cause, psychological factors are often also important. Physical loss of erection is most often treated by injection of drugs directly into the penis or, recently, with the oral drug sildenafil (Viagra), which has been shown to enhance erectile ability in 70-90% of patients. Vacuum devices can be used by men who do not want to inject themselves, and there are topical preparations, but these are used less often because of their relative lack of success. Patients with erectile dysfunction of primarily psychological origin may benefit from a wide range of specialist psychological therapies, which usually include their partner.

Difficulties with ejaculation

Ejaculatory dysfunction among disabled people is most common in men with spinal cord injury, multiple sclerosis, spina bifida, and transverse myelitis. Ejaculation involves closure of the bladder neck (through sympathetic stimulation) and relaxation of the external sphincter.

Patients with spinal damage often experience retrograde ejaculation into the bladder because of sympathetic damage, and various procedures have been used to induce an ejaculate. In men with an upper motor neurone lesion but with an intact sacral cord, vibratory stimulation is often used. After training, vibratory stimulation of the penis can be attempted at home. Once the frequency and amplitude of the vibration has been selected, the vibrator is applied to the penis to stimulate the pudendal nerve.

If this is unsuccessful patients with lower motor neurone injuries can be helped by electroejaculation. This involves the insertion of a stimulatory probe into the rectum to stimulate the midsacral roots directly, but it requires hospital attendance because of the complexity of the procedure and the potential side effects of pain and autonomic dysreflexia.

Fertility problems

For men with neurological impairment, obtaining semen with a reasonable sperm count and motility is a problem. The same difficulty occurs with many other injuries and as a side effects of drugs used to treat various conditions.

Women with traumatic brain injury, epilepsy, multiple sclerosis, and diabetes retain an anatomically reproductive system, but the physiological effects of their condition may alter ovulation or hormone secretion. The lower pregnancy rates reported in disabled women are probably the result of conception being avoided because of concerns over their ability to raise a family as well as manage their impairment. Those with congenital disorders known to affect fertility and childbirth should be given the opportunity to discuss any anxieties with a genetic counsellor.

Assisted conception

Technology exists to obtain ejaculate from most men, but the problem of semen quality, particular sperm motility, remains. The reason for this is unclear, although scrotal hyperthermia, long term use of certain drugs, prolonged sitting in a

Drugs that can cause erectile dysfunction*

Antipsychotics, anxiolytics, hypnotics

- Phenothiazines—such as chlorpromazine
- Butyrophenones—such as haloperidol
- Benzodiazepines

Anticholinergics

- Atropine
- Diphenhydramine—such as in over the counter cold remedies and sleeping pills

Hormones

- Corticosteroids
- Oestrogens
- Anabolic steroids (high dose)

Antiandrogens

Antidepressants

- Tricyclics—such as amitriptyline, imipramine, dothiepin
- Monoamine oxidase inhibitors— such as phenelzine
- selective serotonin reuptake inhibitors—may cause ejaculatory problems

Antihypertensives

- Diuretics—such as thiazides, spironolactone
- Vasodilators
- Central sympatholytics—such as methyldopa, clonidine, reserpine
- Ganglion blockers—such as guanethidine, bethanidine
- β blockers—such as propranolol, metoprolol, atenolol
- ACE inhibitors—such as enalapril
- Calcium channel blockers— such as nifedipine

Dopamine antagonists

- Metoclopramide

H₂ antagonists

- Cimetidine

Psychotropic drugs

- Alcohol
- Cannabis
- Amphetamines
- Barbiturates
- Opioids
- Tobacco smoking

*A fuller list is available in earlier article by Tomlinson



Ferticare personal vibrator—developed to help men with spinal cord injuries to ejaculate and is effective in 80% of cases

Autonomic dysreflexia and hyperreflexia

Untreated condition is life threatening and can result in convulsions, cerebral haemorrhage, and death

- Occurs in spinal cord lesions above T6
- Due to increased autonomic activity after stimulus (such as distended bowel or bladder)
- Signal from receptor travels up column until blocked at level of lesion
- Local vasoconstriction responses are activated, and person experiences intense headache due to rapid rise in blood pressure
- Parasympathetic response to try to stabilise blood pressure cannot travel down spinal cord past level of lesion, and so blood pressure continues to rise

Management

- At first sign of symptoms (flushing, serious sweating above lesion level, nasal congestion, extreme headache) take immediate action to determine cause and remove stimulus
- Sublingual nifedipine can be used to lower blood pressure

wheelchair, and repeated urinary tract infections have all been suggested.

At the simplest level, couples can be taught how to obtain semen with a vibrator at home and introduce it into the vagina with a standard syringe. If sperm motility is low (<35%) in vitro fertilisation can be useful. The process is also helpful for some men with spinal cord injury.

The recently developed techniques of microassisted fertilisation require only small numbers of motile sperm. Intracytoplasmic sperm injection, in which semen is inserted directly into the egg cytoplasm, is more suited for those with low sperm counts. Research indicates fertilisation rates as high as 70% and childbirth rates as high as those with in vitro fertilisation. Studies are currently assessing the effectiveness of using a small specimen of semen taken directly from the epididymis for in vitro fertilisation or intracytoplasmic sperm injection.

Even in conditions of severe disability, such as tetraplegia, close monitoring by a team of specialists including the spinal injury team and urological and gynaecological services should ensure maximum likelihood of conception and pregnancy. Options exist for improving sexual function and fertility for those with a wide range of disabling conditions. Such people do not wish for preferential treatment, but they do deserve equal opportunity of access to a fulfilling sex life.

Further help

Your local spinal injury centre should be able to advise on the availability of services for disabled people in the area

Spinal injury centres are at

- Hexham General Hospital, Hexham NE46 1QJ (Tel 01434 606161)
- Musgrave Park Hospital, Belfast BT9 7JB (Tel 01232 669501)
- Northern General Hospital, Sheffield S5 7AU (Tel 0114 2434343)
- Our Lady of Lourdes Hospital, Dun Laoghaire, Dublin, Republic of Ireland (Tel 010 35 35 285 477)
- Pinderfields General Hospital, Wakefield WF1 4EE (Tel 01924 201688)
- Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry ST10 7AG (Tel 01691 404000)
- Rookwood Hospital, Cardiff CF5 2YN (Tel 01222 566281)
- Royal National Orthopaedic Hospital, Stanmore HA7 4LP (Tel 0181 954 2300)
- Salisbury District General Hospital, Salisbury SP2 8BJ (Tel 01722 336262)
- Southern General Hospital, Glasgow G51 4TF (Tel 0141 2012555)
- Stoke Mandeville Hospital, Aylesbury HP21 8AL (Tel 01296 315000)

Options exist for improving sexual function and fertility for those with a wide range of disabling conditions

The posters for the Spinal Injuries Association were reproduced with permission of the SIA, and the photographs were by Jim Kelly.

Clive Glass is consultant clinical psychologist and Bakulesh Soni is consultant at the North West Regional Spinal Injuries Unit, Southport District General Hospital.

The ABC of sexual health is edited by John Tomlinson, physician at the Men's Health Clinic, Winchester, and London Bridge Hospital, and formerly general practitioner in Alton and honorary senior lecturer in primary care at the University of Southampton.

BMJ 1999;318:518-21

A memorable patient Say what you mean

I followed him as he drove. He seemed not to notice that pedestrians and other motorists wanted to use the same road at the same time. When he indicated left, he turned right. His path was slow but erratic. I recognised him and, because I was his general practitioner, felt that I bore some responsibility to protect him and other road users.

I visited him, broaching the subject by telling him what I had seen. As gently as I could, I suggested that the time had come for him to sell his car. I find that breaking this sort of bad news is harder than telling someone that their illness might be terminal or that a loved one has died. It feels as though it is my decision, not the result of fate or misadventure. I knew that he would feel that he was losing his independence. I also knew that, as in many

rural areas, there was no public transport available. He said that he would not be able to get to the shops or to visit his wife, who was in long term care. Nevertheless, he promised that he would "think about it." For an opening salvo, that was good enough. I left him to reflect upon the problem.

Ten days later the practice nurse visited him for his annual "over 75" check. He was cross that I had suggested that he should sell his car. But despite the upset, he had thought about it and had done as I had asked. Then with a grin he said "come here lass" and took her to his garage. "I did sell the car—but I bought this one instead."

Jim Cox, *general practitioner, Cumbria*