



Insulin Dependent Diabetes Trust

Sexual Dysfunction in Men and Women

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- All men, with or without diabetes, experience difficulties in achieving an erection at some time in their lives.
- Overall 35% of men with diabetes have erectile dysfunction but this rises to 50% in men with diabetes over the age of 50.
- We rarely hear about sexual dysfunction in women with diabetes, yet this can be a very real problem for some women with diabetes.
- As with men, there are many factors that can cause sexual problems in women and they can be psychological or physical. Stress, tiredness, anxiety, relationship problems can affect energy levels and sexual desire but some medical conditions are also linked to sexual dysfunction in women.

General information about erectile dysfunction

Facts

- All men, with or without diabetes, experience difficulties in achieving an erection at some time in their lives.
- It affects at least one man in every 10.
- Overall 35% of men with diabetes have erectile dysfunction but this rises to 50% in men with diabetes over the age of 50.

Definition and Causes of erectile dysfunction

Erectile dysfunction, more frequently referred to as impotence, is the persistent or recurrent inability to attain or maintain an erection. Until about 20 years ago erectile dysfunction was thought to be almost entirely caused by psychological factors but it is now known that physical conditions are present in about 75% of men and that in many men it may be caused by a combination of both.

Physical causes

If erectile dysfunction is of a physical cause then the onset is often gradual. These may be:

- Damage or diseases that affect the nerves that go to and from the penis.
- Vascular disease
- Side effects of medications, such as blood pressure tablets, sedatives, tranquillisers and anti-depressants.
- High cholesterol
- Too much alcohol, some recreational drugs and heavy smoking.
- Neurological disease eg stroke.
- Chronic diseases such as diabetes, kidney failure and liver failure.

Psychological causes

If erectile dysfunction is of sudden onset then this suggests a psychological cause which could be:

- Stress and anxiety either at work or at home.
- Marital conflicts
- Depression.

Erectile dysfunction and diabetes

In the majority of cases of erectile dysfunction in men with diabetes the cause is physical rather than psychological and the most common cause is neuropathy – damage to the nerves going to and from the penis. Physical causes themselves can also cause psychological difficulties, so general counseling and discussion may be helpful.

Research [Pract Diab 1997:Vol 4,No 4] in which 194 men with diabetes answered a questionnaire has shown that there is not only a problem about being open about these issues but there is also a lot of misunderstanding which may still apply. The study showed that:

- 9% defined erectile dysfunction incorrectly
- 30% were unaware that it can be a complication of diabetes
- 42% thought it was inevitable with age.

The study concluded that not sufficient emphasis is placed on impotence by health professionals and that they do not see it as important as other complications of diabetes. Health professionals should raise this issue at the diabetes annual check in order to provide people with the opportunity to raise what may be an embarrassing topic for them but also because erectile dysfunction can be a sign of diabetes control problems or other underlying health conditions. It can also lead to a reduction in quality of life and an unfulfilling sex life can cause relationship problems.

What to do if erectile dysfunction develops

It is important to remember that there have been significant advances in the treatment of erectile dysfunction and the majority of men can

now be treated effectively for intercourse to take place.

However, it is first necessary to identify the cause which means discussing the problem with your GP or diabetes clinic doctor. You may well be referred to a specialist or your GP may have a clinic within the surgery. Once referred there will be a general assessment of your health and the medications you may be taking. Blood tests will also be carried out to check your blood glucose control, hormone levels, blood pressure and general fitness. There may also be discussions about your previous sexual function and your relationship with your partner.

Treatment options

Psycho-sexual therapy

This may be recommended where psychological factors are considered to be an important part of the causes of erectile dysfunction. It may be recommended in combination with other treatments.

Cochrane Review of psychosocial interventions for erectile dysfunction
A meta-analysis was carried out looking at all the research for erectile dysfunction to compare the effectiveness of psychological treatment [therapy] and treatment with oral drugs, vacuum devices or other psychological interventions. The reviewers searched for randomised controlled trials carried out between 1966 and 2007 and found 11 trials involving 398 men. Their conclusions were:

- group psychotherapy therapy improves erectile dysfunction in selected patients
- focused sex group therapy was more effective than no treatment
- men who received group therapy and Viagra [sildenafil] showed significant improvement of erectile dysfunction and were less likely than those receiving only Viagra to drop out
- no difference was found when comparing the effectiveness of psychological interventions with local injection and vacuum devices.

Ref: Melnik T, Soares BGO, Nasselo AG. Psychosocial interventions for erectile dysfunction. Cochrane Database of Systematic Reviews 2007, Issue 3. Art. No.: CD004825. DOI: 10.1002/14651858.CD004825.pub2.

Hormone treatment

Only a small number of cases of erectile dysfunction are caused by hormonal imbalance – most often reduced levels of testosterone. If this is the case, testosterone replacement can be used.

Oral medications

There are now three drugs in tablet form used to treat erectile dysfunction.

- Viagra [Sildenafil, Pfizer]
- Cialis [Tadalafil, Lilly]
- Levitra [Vardenfil, Bayer/GSK]

They all act in the same way by helping the smooth muscles in the penis to relax so increasing blood flow to the penis to cause an erection. They will only work if the man is sexually stimulated. None of them should be taken in combination with each other.

Viagra – this was the first drug of its type on the market. It should be taken an hour before sexual activity and on average takes 20 to 60 minutes to work.

Side effects are usually mild and transient with the most common being headache and flushing. It should not be taken with other medicines unless the doctor says it is safe to do so.

Not to be taken by people who are taking medicines containing nitrates which are commonly prescribed for people with angina. Nor should it be taken by people with the following conditions:

- severe heart or liver problems,
- recent heart attack, stroke or high blood pressure,

- certain rare eye diseases eg retinitis pigmentosa.

Cialis – works within 30 minutes of taking it, 50% of men can get an erection if sexually stimulated. Its effects last for 24 hours so the manufacturers say that it will allow men with erectile dysfunction to choose when they want to have sex and will allow couples greater spontaneity. The publicity material says that in clinical trials Cialis worked in four out of five men.

Side effects are usually mild and transient with the most common being headache and indigestion. Less common side effects include stuffy nose, flushing, myalgia, dizziness and backache.

Not to be taken by people who are taking medicines containing nitrates or men with the following conditions:

- severe cardiac disease where sexual activity is inadvisable,
- heart attack in the last 90 days or significant heart failure in the last 6 months,
- stroke within 6 months,
- unstable angina,
- uncontrolled arrhythmias [irregular heart beat], low or untreated high blood pressure.

Note: once daily Cialis given EU approval

A once-daily version of Cialis has received marketing authorisation from the European Commission. It is the first drug of its kind to be used once daily. The previous on-demand versions of Cialis at 20-mg and 10-mg doses have been available in the EU since 2002, but at a maximum recommended dose of one tablet per day taken shortly before sexual activity. In contrast with this and other products, this once-daily formulation of Cialis eliminates the requirement to have sex within a narrow time frame. According to the manufacturers, the once-daily version is for men intending to have sex at least twice a week.

Lilly expects the launch of the new doses in selected countries during the second half of 2007 and continuing throughout other EU countries during 2008. The recommended dose is 5mg a day, but can be reduced to the 2.5mg level based on individual tolerability.

Levitra – clinical trials have shown that it is effective and reliable within a range of men with erectile dysfunction. It usually works within 25-60 minutes and within a 5 hour period after taking it. Research among men with diabetes showed that 73% taking 20mg Levitra had a significant improvement in erections.

Side effects are usually mild and transient with the most common being headache and flushing.

Not to be taken by people who are taking medicines containing nitrates or men with the following conditions:

- severe cardiac disease where sexual activity is inadvisable,
- recent stroke, heart attack or low blood pressure,
- unstable angina.

Cochrane review of erectile dysfunction drugs for men with diabetes

The Cochrane Collaboration is an international organisation which evaluates systematic reviews and draws evidence-based conclusions about medical practice. A Cochrane Review investigated whether the three popular drugs to treat erectile dysfunction, sildenafil (Viagra), vardenafil (Levitra) and tadalafil (Cialis), known as PDE-5 inhibitors are a safe and effective option for men with diabetes. The Review showed that although diabetes can cause a number of other chronic complications, such as heart disease and high blood pressure, these erectile dysfunction drugs were shown not to cause many adverse reactions in men with diabetes. The most common side effects

were headache, flushing and upper respiratory tract complaints and flu-like symptoms.

In this case the Cochrane reviewers analysed eight studies that compared the effectiveness of the three PDE-5 medications to placebo. 1,759 men were involved with about half randomised to receive PDE-5 inhibitor therapy for 12 weeks in most studies and the rest to the placebo group. Overall, 80 percent of the participants had type 2 diabetes and the others had type 1 diabetes.

At the end of the studies men who took PDE-5 inhibitors showed improvements on all measures of erectile function, with an average difference of 26.7% more “successful intercourse attempts” compared to placebo groups. However, the Cochrane reviewers caution that men should use PDE-5 inhibitors only as directed by their physicians and should discuss interactions with other drugs that may be being taken and specific contraindications. The reviewers also warn that there is no concrete evidence that these medications are safe for the long term.

NHS availability

All three of the above drugs are available on an NHS prescription to men with diabetes but there are limits on how many tablets can be prescribed.

Other forms of treatment

Transurethral therapy – a needle-free form of treatment where a small pellet of a drug is introduced into the urethra [the tube that urine passes through] with a special applicator. The drug is absorbed through the urethra walls into the erectile tissue giving an erection on 5-10 minutes.

Intracavernosal injection therapy – the man and/or his partner are taught how to inject a drug directly into the penis. An erection usually occurs within 15 minutes.

Vacuum devices – these produce an erection using a hand or battery operated vacuum pump attached to a plastic cylinder.

Penile prosthesis – that are like splints that are surgically inserted into the penis. This causes destruction of the erectile tissue and should not be considered until all other treatments have been tried.

Women, sex and diabetes

While impotence may not receive sufficient attention in relation to men and diabetes, we rarely hear about problems relating to women with diabetes and sexual problems, yet this can be a very real problem for some women with diabetes. Many women have difficulty talking to their partner about sexual difficulties and do not seek help due to shame, embarrassment or fear.

As with men, there are many factors that can cause sexual problems in women and they can be psychological or physical. Stress, tiredness, anxiety, relationship problems can affect energy levels and sexual desire but some medical conditions are linked to sexual dysfunction in women including diabetes, cardiovascular disease, MS and some prescription drugs.

Do women with diabetes have problems that are different from women without diabetes?

There are very few sources of information about this, yet sex is part of human nature and belongs to a healthy lifestyle so it is to nobody's advantage to avoid discussing these issues.

Research published in 2002 [Diabetes Care 2002;25:672-676] interviewed 120 women with Type 1 diabetes and compared them with a control group of women without diabetes. The results showed that women with diabetes reported significantly more problems with sexual dysfunction than women without diabetes, 27% compared to 15%. There was no association between sexual dysfunction and age, weight, duration of diabetes or blood glucose control but there was a close link between sexual dysfunction and depression in both women

with diabetes and those without it. The study highlights that sexual dysfunction is common in women with diabetes and that this affects the quality of life.

Common problems

Autonomic Neuropathy

Neuropathy or nerve damage is a common complication of diabetes which can lead to poor bladder control and poor vaginal lubrication. This can result in discomfort and inconvenience that may affect a woman's libido.

Poor bladder control occurs when the nerves to the bladder are damaged and this may lead to an inability to empty the bladder completely. Women are advised to urinate before intercourse and within 30 minutes after. The American Diabetes Association advises people suffering from inconsistent urine release to follow a planned bladder emptying programme whereby they try to urinate every hour until the bladder feels full.

Poor vaginal lubrication can occur if neuropathy affects the nerve fibres that stimulate the genitalia. Arousal may not occur making intercourse painful [dyspareunia] because the lubrication fluids are not produced. This situation can be helped by the use of a lubrication jelly from the pharmacy [eg KY Jelly] or for women that find that lubricating jelly diminishes their libido, a mild skin cream may be more helpful.

Note: Poor vaginal lubrication can also be caused by low hormone levels which can affect women with and without diabetes. This needs to be diagnosed by a doctor and if necessary treated with hormone replacement therapy.

Low sex drive

A lack of interest in sex can affect both men and women. It may be a factor throughout life but if a temporary phase, it can be caused by:

- psychological factors such as depression, tiredness

- hormonal problems
- linked to certain medicines such as tranquillisers, the Pill, antidepressants and pills for high blood pressure, often commonly used by people with diabetes. It is advisable to discuss this with your doctor to consider changing medications.
- Poor sleep may lower women's libido – a study has found that low libido during menopause may be linked to disturbed sleep. This is the first time that sleep disturbances have been independently associated with diminished sexual desire. Of the 341 women in the study, 64% reported a low libido and 43% said they had trouble sleeping.

[American Journal of Obstetrics and Gynecology, June 2007]

Painful sexual intercourse

Pain during sex [dyspareunia] can be superficial or deep pain.

Superficial pain is often caused by:

- infections such as thrush, common in women with diabetes
- vagismus, a condition that causes the lower vaginal muscles to go into spasm.

Deeper pain can be caused by:

- a lack of lubrication or stimulation
- conditions such as pelvic inflammatory disease
- endometriosis.

Hypoglycaemia and sexual intercourse

For men it is well recognised that intercourse uses up large amounts of energy - the old joke about it being the same as running a 4 minute mile! So it is necessary to be aware that this could cause a hypo.

But women should also be aware of hypos during and after sex. Some women put out an adrenalin response while they are having intercourse and this produces a loss of control, sweating and erratic heartbeat. These symptoms are similar to those of a hypo and so it is important that the two are not confused. Checking blood glucose

levels before and after sex is recommended. While this may sound a little contrived and perhaps takes away some of the spontaneity, it does serve to emphasise that women with diabetes do have added difficulties compared to women without diabetes.

FURTHER INFORMATION IS AVAILABLE FROM:

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