

Sexual dysfunction

The often neglected issues of sexual dysfunction in women with diabetes



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Fuelled by the introduction of Viagra (sildenafil) in 1998, erectile dysfunction in men became a very topical subject in the medical and lay press. Screening for erectile dysfunction in the male population with diabetes, given a relatively easy approach to treatment, became the flavour of the month. Less well-addressed have been sexual-health issues in women with diabetes.

Ali et al (summarised alongside) highlight female sexual dysfunction as a common disorder in this population, confirming this finding in other studies of women with diabetes globally. Despite the high prevalence (nearly 60% in Jordanian women with diabetes), there is a relative paucity of published information regarding its pathophysiology and management

strategies. The main areas identified that contribute to female sexual dysfunction in diabetes include: reduced vaginal lubrication and arousal, dyspareunia and orgasmic dysfunction or anorgasmia (Enzlin et al, 1998). Fortunately, there are management strategies available to tackle these components, including: vaginal lubricants, local or systemic hormone replacement therapy and clitoral stimulation aids (for lubrication issues); counselling therapy and hormonal approaches such as low dose testosterone (for diminished libido); arousal enhancement strategies (for dyspareunia); and psychosexual therapy and vibrating sex aids (for anorgasmia).

Women with diabetes need to be made aware of female sexual dysfunction, and have access to healthcare professionals who can help manage this disorder – currently this is not the case.

Enzlin P, Mathieu C, Vanderscheuren D, Demyttenaere K (1998) Diabetes mellitus and female sexuality: a review of 25 years research. *Diabetic Medicine* **15**: 809–15

THE JOURNAL OF SEXUAL MEDICINE

EMPs indicate higher levels of vascular injury in men with diabetes and ED

Readability	✓✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓✓

1 High levels of endothelial microparticles (EMPs) are more common in men with diabetes and erectile dysfunction (ED) than in men without diabetes and ED, indicating that it might be possible to use EMP levels as indicators of vascular injury.

2 As the mechanisms underlying the increased EMP levels in men with diabetes and ED are not known, this study aimed to establish whether or not increased EMP expression is a

result of protein activation or cellular apoptosis.

3 The study included men with ED: 30 individuals with type 2 diabetes and 24 without diabetes who comprised an age- and weight-matched control group. ED, EMP levels, and markers for apoptosis and protein activation were assessed in all participants and compared between groups.

4 Levels of EMP31+ were highest in men with diabetes and levels of EMP62+ were highest in men with ED, regardless of diabetes.

5 A low ratio of EMP62:EMP31, indicating apoptosis, was observed in men with diabetes and ED, thus associating overall EMP expression with apoptosis in men with diabetes and ED.

6 Overall, the authors observed an inverse correlation between expression of flow-mediated dilation and circulating EMPs ($P < 0.05$).

Esposito K, Ciotola M, Giugliano F et al (2008) Phenotypic assessment of endothelial microparticles in diabetic and nondiabetic men with erectile dysfunction. *The Journal of Sexual Medicine* **5**: 1436–42

DIABETES CARE

Sexual dysfunction is prevalent in women with diabetes in Jordan

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓✓
WOW! factor	✓✓✓✓

1 Female sexual dysfunction includes disorders affecting the libido, sexual arousal or orgasm, and pain during sex. Although it is known that female sexual dysfunction affects a high percentage of women with diabetes, it is hard to ascertain this percentage in some societies, where discussing sexual topics is considered taboo.

2 This Jordanian study is one of few to be performed in a Middle Eastern country on this topic, and the authors aimed to compare the prevalence of female sexual dysfunction in women with and without diabetes.

3 A total of 1137 married women over 50 years of age, 613 with diabetes and 524 without diabetes, completed the Female Sexual Function Index questionnaire.

4 Prevalence of female sexual dysfunction was significantly higher in women with diabetes, with 59.6% versus 45.6% of women being affected ($P = 0.003$); particular areas of dysfunction in women with diabetes included problems with arousal, desire, lubrication and orgasm.

5 Further analysis showed that factors such as smoking, glycaemic control, hypertension and autonomic or peripheral neuropathy did not affect incidence of female sexual dysfunction. However age, BMI and duration of diabetes did have negative effects on sexual function.

6 Consequently, the prevalence of female sexual dysfunction is significantly higher in women with diabetes in this population.

Abu Ali RM, Al Hajeri RM, Khader YS (2008) Sexual dysfunction in Jordanian diabetic women. *Diabetic Care* **31**: 1580–1

THE JOURNAL OF SEXUAL MEDICINE

Metabolic syndrome compromises effect of sildenafil

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓

1 Based on the reportedly high prevalence of erectile dysfunction (ED) in men with metabolic syndrome, this study aimed to assess the effect of metabolic syndrome on the effects of sildenafil.

2 A total of 133 men with ED participated in this study; further to evaluations of severity

of ED and prevalence of metabolic syndrome, all individuals were prescribed sildenafil.

3 All participants completed the Index of Erectile Function questionnaire to evaluate erectile function after treatment with sildenafil. Presence of metabolic syndrome, along with severity of ED and history of pelvic surgery were found to be significant risk factors for non-response to sildenafil. The hazard ratio for the presence of metabolic syndrome in individuals with ED was 3.30 (95% CI 1.17–9.73).

4 Overall, the authors conclude that metabolic syndrome has a negative impact on the efficacy of sildenafil.

Suetomi T, Kawai K, Hinotsu S et al (2008) Negative impact of metabolic syndrome on the responsiveness to sildenafil in Japanese men. *The Journal of Sexual Medicine* **5**: 1443–50

EUROPEAN UROLOGY

Phosphodiesterase type-5 inhibitor helps maintain erectile function

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓✓

1 The efficacy of long-term treatment with the new phosphodiesterase type-5 inhibitor SK-3530 was assessed in a rodent model of

diabetes-associated erectile dysfunction.

2 Three different groups of rats were compared: normal, with diabetes, and with diabetes treated with SK-3530, and penile tissue samples from each group were assessed.

3 Rats treated with SK-3530 had improved erectile parameters compared with those without SK-3530 treatment, and SK-3530 treatment significantly reduced the mean apoptotic index in the penile tissue of rats with diabetes ($P < 0.05$).

Park K, Ryu KS, Li WJ et al (2008) Chronic treatment with a type 5 phosphodiesterase inhibitor suppresses apoptosis of corporal smooth muscle by potentiating Akt signalling in a rat model of diabetic erectile dysfunction. *European Urology* **53**: 1282–9

EUROPEAN UROLOGY

Long-term treatment with vardenafil is effective for erectile dysfunction

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓✓✓

1 Phosphodiesterase type-5 inhibitor drugs are used as treatment for diabetes-related erectile dysfunction (ED), but their efficacy to date has been limited.

2 This study investigated the effects of two dosing regimens of vardenafil on cavernous protein expression and erectile function in a rat model of diabetes-related ED.

3 Compared with no treatment, rats receiving vardenafil had significantly increased intracavernous pressure; rats on long-term treatment with vardenafil showed improved endothelial and smooth-muscle cell staining, indicating that vardenafil preserves function in these tissues.

4 Vardenafil was effective for the treatment of diabetes-related ED, particularly through a long-term treatment regimen.

De Young LX, Domes T, Lim K (2008) Endothelial rehabilitation: the impact of chronic PDE5 inhibitors on erectile function and protein alterations in cavernous tissue of diabetic rats. *European Urology* **54**: 213–20