Sexual dysfunction

So, just how important is your sex life?

Mike Cummings, Consultant Physician and Honorary Professor, Queen Alexandra Hospital, Portsmouth

It is known that approximately one-third of individuals with diabetes (both men and women) will have altered sexual function (Cummings, 2006). But is this important? After all, nobody dies from sexual dysfunction and some may argue that money is better spent on life-threatening disorders such as cancer and heart disease.

Taloyan et al (2010; summarised alongside) have addressed this issue by looking at sexual dissatisfaction in people of both sexes with type 2 diabetes without reference to the presence of established sexual dysfunction. Intriguingly, they also examined the impact of ethnicity on sexual dysfunction by questioning a native Swedish population with diabetes and Assyrian/Syrian residents with diabetes. They established that nearly half of those interviewed (49%) reported sexual dissatisfaction and this was equally relevant in the different ethnic populations.

Such high levels of sexual dissatisfaction can have significant implications for people with diabetes that extend beyond sexual intercourse *per se*. For instance, sexual dissatisfaction has now been shown to be unequivocally associated with impairment in quality of life (De Berardis et al, 2002). This can be associated with depression and lack of motivation, which can ultimately negatively impact on glycaemic control and management of other vascular risk factors.

Conversely, for some people, an active sex life is irrelevant among other challenges in life. When assessing sexual function in people with diabetes, enquiring about the presence of altered function (e.g. erectile dysfunction) should be accompanied by questions about its day-to-day relevance; this is key in whether effective treatments should be offered.

> ***"When assessing sexual function in people with diabetes, enquiring about the presence of altered function ... should be accompanied by questions about its day-to-day relevance; this is key in whether effective treatments should be offered."***

Cummings M (2006) *Managing Erectile Dysfunction*. Altman Publishing, St Albans

De Berardis G, Franciosi M, Belfiglio M et al (2002) Erectile dysfunction and quality of life in type 2 diabetic patients: a serious problem too often overlooked. *Diabetes Care* **25**: 284–91

FERTILITY AND STERILITY

T2D reduces sexual function in women

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

1 The purpose of this cross-sectional study was to compare factors that affect sexual function (SF) in premenopausal women with T2D.

2 Sixty-two women with T2D and a control group of 50 women without T2D were assessed for SF using the female SF index (FSFI).

3 The FSFI domains were arousal, lubrication, orgasm, satisfaction, desire and pain.

4 Women with T2D had a lower overall FSFI score than those in the control group (23.95 vs 31.66; $P<0.001$).

5 Among the women with T2D, those with a duration of diabetes of >10 years, irregular menstruation and smokers had the lowest FSFI scores; the authors concluded that these three factors impair SF in premenopausal women with T2D.

Yencilek F, Attar R, Erol B et al (2010) Factors affecting sexual function in premenopausal age women with type 2 diabetes: a comprehensive study. *Fertil Steril* **94**: 1840–3

BMC PUBLIC HEALTH

No ethnic differences in sexual dissatisfaction in people with T2D

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

1 This Swedish cross-sectional, questionnaire-based study had two aims: first, to analyse whether there was an association between self-reported satisfaction with sexual life and ethnicity in 354 people with T2D (173 ethnic Assyrians/Syrians; 181 Swedes); second, to establish whether this association, if any, remained after controlling for confounders (marital status, HbA_{1c}, medication, comorbidities).

2 The study was conducted at four primary healthcare centres in Södertälje, Sweden.

3 Fourty-nine per cent of participants in both ethnic groups reported dissatisfaction with their sexual life; no significant ethnic differences were found.

4 An odds ratio (OR) for sexual-life dissatisfaction in people aged ≥70 years, regardless of ethnicity, was 2.52 (95% confidence interval [CI], 1.33–4.80).

5 The OR for sexual-life dissatisfaction in those living alone or with children was three-fold higher that those who were married or cohabiting individuals (OR, 3.10; 95% CI, 1.60–6.00).

6 The OR for participants with comorbid conditions was 1.89 times higher (95% CI, 1.10–3.40) than those without other conditions.

7 The authors concluded that these findings highlight the importance of sexual life among people with T2D, and that this should not be ignored in clinical evaluations.

Taloyan M, Wajngot A, Johansson SE et al (2010) Ethnic differences in dissatisfaction with sexual life in patients with type 2 diabetes in a Swedish town. *BMC Public Health* **10**: 536

JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY

ED associated with CVD in men with T2D

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

1 This cohort analysis of the ADVANCE (Action in Diabetes and Vascular Disease: Preterax and Diamicron Modified-Release Controlled Evaluation) trial population aimed to examine the relationship between erectile dysfunction (ED) and cardiovascular disease (CVD) mortality.

2 As part of the ADVANCE trial, 6304 men with T2D (aged 55–88 years) underwent baseline examinations that included inquiries regarding ED. Over the course of follow-up (5 years), the presence of fatal and non-fatal CVD outcomes, cognitive decline and dementia was recorded.

3 At baseline, half of the men (n=3158) reported ED. These men were more likely to have had previous CVD and were heavier, older, less physically active and had lower cognitive function than those without ED.

4 At 5 years follow-up, after adjusting for multiple confounders, baseline ED was associated with total mortality (hazard ratio [HR], 1.16; 95% confidence interval [CI], 0.99–1.35), CVD (HR, 1.19; 95% CI, 1.08–1.32), coronary heart disease (CHD; HR, 1.35; 95 CI, 1.16–1.56) and cerebrovascular disease (HR, 1.36; 95% CI, 1.11–1.67).

5 ED status was also assessed after 24 months follow-up. Men with ED at baseline and at 24 months had the highest risk of CVD, CHD and cerebrovascular disease.

6 In this study, ED was associated with a range of CVD outcomes in men with T2D.

Batty GD, Li Q, Czernichow S et al (2010) Erectile dysfunction and later cardiovascular disease in men with type 2 diabetes: prospective cohort study based on the ADVANCE (Action in Diabetes and Vascular Disease: Preterax and Diamicron Modified-Release Controlled Evaluation) trial. *J Am Coll Cardiol* **56**: 1908–13

JOURNAL OF SEXUAL MEDICINE

Stem cells restore erectile function

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

1 The authors investigated whether transplantation of bone marrow-derived mesenchymal stem cells (BM-MSCs) could improve erectile function (EF) in rats with diabetes.

2 Diabetes-induced male Sprague–Dawley rats were transplanted with rat BM-MSCs or injected with phosphate-buffered saline (diabetes controls) in the corporal cavernosa.

3 After 4 weeks, all rats underwent measurement of intracavernous pressure (ICP) and mean arterial pressure (MAP) to assess EF.

4 ICP:MAP ratio was increased in the transplanted rats compared with controls (P<0.05). Smooth muscle and endothelial contents also improved.

5 Intracavernous transplantation of BM-MSCs was found to improve EF in rats with diabetes.

Qiu X, Lin H, Wang Y et al (2011) Intracavernous transplantation of bone marrow-derived mesenchymal stem cells restores erectile function of streptozocin-induced diabetic rats. *J Sex Med* **8**: 427–36

INTERNATIONAL JOURNAL OF ANDROLOGY

Gastric bypass surgery reverses ED in obese men

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

1 The effect of gastric bypass (GB) surgery on erectile function (EF) and hormonal balance was examined.

2 Twenty morbidly obese men were randomised to an intervention group (exercise and diet with subsequent GB surgery; n=10) or a control group (weekly follow-up; n=10).

3 At 4 months (time of surgery), EF scores and hormone levels were similar for both groups.

4 At study end (24 months), EF scores, testosterone and follicle-stimulating hormone levels had increased (P=0.047, P=0.035 and P=0.0025, respectively), and prolactin levels had reduced (P<0.0001) in the intervention compared with the control group.

5 GB surgery, but not lifestyle changes, improved EF and hormonal balance in obese men in this study.

Reis LO, Favaro WJ, Barreiro GC et al (2010) Erectile dysfunction and hormonal imbalance in morbidly obese male is reversed after gastric bypass surgery: a prospective randomized controlled trial. *Int J Androl* **33**: 736–44

BJU INTERNATIONAL

Metabolic syndrome and hypogonadism in people with ED

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

1 In this prospective study, men with erectile dysfunction (ED) underwent screening for the presence of the metabolic syndrome (MetS) and hypogonadism at a single UK centre.

2 Demographic, coronary risk factor and glucose, lipid and hormone level data were collected.

3 Of the 124 men screened (mean age, 50 years), 50 (40%) met the National Cholesterol Education Program Adult Treatment Panel III 2005 criteria for MetS.

4 Low testosterone levels were found in 33 participants (27%); these men more frequently had MetS, low testicular volume and reduced libido than those with normal testosterone levels.

5 Based on the high incidences found in this study, the authors recommend routine screening for MetS and hypogonadism in men with ED.

Somani B, Khan S, Donat R (2010) Screening for metabolic syndrome and testosterone deficiency in patients with erectile dysfunction: results from the first UK prospective study. *BJU Int* **106**: 688–90

"Men with low testosterone levels more frequently had the metabolic syndrome, low testicular volume and reduced libido than those with normal testosterone levels."