

Jiann BP, Huang YJ. Poor glycemic control is a risk for low testosterone in type 2 diabetic men with erectile dysfunction.

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**Abstract:** Purpose: Men with type 2 diabetes mellitus (DM) are associated with a high risk for erectile dysfunction (ED) as well as low testosterone levels. The study investigated the risk factors for hypogonadism in men with DM associated with erectile dysfunction (DMED). Methods and Materials: Men presented with the complaint of ED and a history of DM at urological outpatient clinics were enrolled into the study. Blood sampling for serum total testosterone (T) and HbA1c were determined. Diabetic history included duration of DM (yrs), treatment agents (hypoglycemic agents or insulin injection) and the presence of complications (retinopathy, vasculopathy, nephropathy and neuropathy). Demographic data included age, body mass index (BMI), and smoking habits. Comorbidities included hypertension and dyslipidemia by self-report and chart review. Erectile dysfunction was assessed by the Sexual Health Inventory for Men (SHIM). Low T was defined as total T < 300 ng/dL. Student's t test,  $\chi^2$  test, linear regression and logistic regression were used and the significant was for  $P < 0.05$ . Results: From June 2006 to June 2011, a total of 286 DMED patients were enrolled into the study and were eligible for analysis. Their mean age was 58.8  $\pm$  11.2 yrs (21-85); mean duration of DM, 7.7  $\pm$  1.2 yrs (0.1-40); and mean total T, 360  $\pm$  150 ng/dL (0.2-9.0). Of them, 43% (123/286) had low T. The low T group had a higher HbA1c level (8.6% vs. 8.2%,  $P = 0.040$ ) than the eugonadal group whereas there is no significant difference in the prevalence of comorbidities and severity of ED between the two groups. The odds ratio for low T in DMED men increases by 0.17 (95% CI: 0.02-0.34) per 1 increment of HbA1c (%) level ( $P = 0.030$ ). Conclusion: Poor glycemic control is a risk factor for low T in men with ED associated with type 2 DM