

Erectile Dysfunction Associated with HbA1c Levels in Diabetic Men

The more elevated HbA1c became, the more severe ED was in this population of sexually active men.

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Diabetic men with elevated HbA1c levels are at a higher risk for severe erectile dysfunction (ED), especially if their duration of diabetes is >6 years. Reporting in the *BJU International*, Ernani Luis Rhoden, MD, and colleagues from the Federal University of Rio Grande do Sul, Porto Alegre, Brazil, determined the effects of HbA1c levels on ED severity. They found that as HbA1c levels rose, severe ED was more common.

Approximately 52% of all men between the ages of 40 and 70 years have ED. Because diabetes is one of the most common risk factors for the dysfunction, men with diabetes have a heightened chance (1.9 to 4 times) of developing ED.

SEXUALLY ACTIVE MEN

Investigators gathered data from sexually active diabetic men, mean age 57.8 years, who visited a urological medical center between January 2000 and December 2001. Of those enrolled, 115 had ED. Patients had a physical examination and answered the International Index of Erectile Function. Men were categorized as having no, mild, moderate or severe ED. A total of 30% had mild ED, 25% had moderate and 41% had severe ED. All were tested for fasting serum glucose and HbA1c serum levels.

LEVEL FOR INCREASED HBA1C

Men were divided into groups by their HbA1c level: <8%, 8.0% to 9.4%, 9.5% to 10.9% and ≥11%. According to investigators, the HbA1c level at which diabetic men have an increased risk for ED is >8.1%. In this population, patients with an HbA1c ≥11% were the most likely to have severe ED with an incidence of 58.6% versus 46% in the ≤8% group and 32% in the <8% group ($P=.002$), the investigators wrote. Mild ED was found in 25% of patients with HbA1c ≥8% and in 50% of patients with

HbA1c <8%, and moderate ED was found in 29% of the ≤8% group and 18% of the <8% group.

"Thus, the proportion of men with HbA1c levels of ≤8% increased with the severity of ED; more specifically, men with moderate and severe ED had proportionally higher rates of HbA1c levels of ≤8%," the investigators wrote.

SIMILAR SEVERITY

For all sexually active men with diabetes for ≤5 years, regardless of HbA1c level, ED severity was similar ($P=.87$). However, when diabetes duration reached 6 to 10 years or >10 years and HbA1c levels were ≤8%, most men reached severe ED ($P<.03$). Severe ED was found in only 36% of all patients with a ≤5-year duration of diabetes. That number rose to 58% for 6 to 10-year duration of diabetes and 54% for >10-year. Investigators also determined the levels of severe ED among men with an HbA1c ≥8%, according to the duration of diabetes. The percentages were 35%, 65% and 70%, respectively. This, investigators wrote, demonstrated that long-term, uncontrolled diabetes may affect the severity of ED more than elevated HbA1c levels.

"The influence of the duration of [diabetes] on the occurrence of complications related to the disease is well recognized," they concluded. "Men with a history of DM of >10 years are three times more likely to report ED than those with a history of <5 years." ■

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Rhoden EL, Ribeiro EP, Riedner CE, et al. Glycosylated haemoglobin levels and the severity of erectile function in diabetic men. *BJU International*. 2005;95:615-617.