

# Nonsurgical treatment of periodontitis for persons with diabetes does not improve glycemic control

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For persons with type 2 diabetes and chronic periodontitis, nonsurgical periodontal treatment did not result in improved glycemic control, according to a study appearing in the December 18 issue of *JAMA*.

Emerging evidence implicates inflammation in the development of type 2 diabetes. Chronic periodontitis, a destructive inflammatory disorder of the soft and hard tissues supporting the teeth, is a major cause of tooth loss in adults. Nearly half of the U.S. population older than 30 years is estimated to have chronic periodontitis, according to background information in the article. Individuals with diabetes are at greater risk for chronic periodontitis. Well-controlled diabetes is associated with less severe chronic periodontitis and a lower risk for progression of periodontitis, suggesting that level of glycemia is an important mediator of the relationship between diabetes and risk of chronic periodontitis. Limited evidence suggests that periodontal therapy may improve glycemic control.

Steven P. Engebretson, D.M.D., M.S., M.S., of New York University, New York, and colleagues examined whether nonsurgical periodontal therapy, compared with no therapy, reduces levels of glycated hemoglobin (HbA1c) levels in persons with type 2 diabetes and moderate to advanced chronic periodontitis. The trial included 514 participants who were enrolled between November 2009 and March 2012 from diabetes and dental clinics and communities affiliated with 5 [academic](#)

[medical centers](#). The treatment group (n = 257) received scaling and root planing plus an oral rinse at baseline and supportive [periodontal therapy](#) at 3 and 6 months. The [control group](#) (n = 257) received no treatment for 6 months.

The researchers found that levels of HbA1c did not change between baseline and the 3-month or 6-month visits in either the treatment or the control group, and the target 6-month reduction of HbA1c level of 0.6 percent or greater was not achieved. There were no differences in HbA1c levels across centers.

Periodontal measures improved in the treatment group compared with the control group at 6 months.

"This multicenter randomized clinical trial of nonsurgical periodontal treatment for participants with [type 2 diabetes](#) and chronic periodontitis did not demonstrate a benefit for measures of [glycemic control](#). Although periodontal treatment improved clinical measures of chronic periodontitis in patients with [diabetes](#), the findings do not support the use of nonsurgical [periodontal treatment](#) for the purpose of lowering levels of HbA1c," the authors conclude.

**More information:** doi:10.1001/jama.2013.282431

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