

Sleep-disordered breathing and type 2 diabetes

QuickFacts:

1. Patients who present with either diabetes or Sleep disordered breathing should be evaluated for the other
2. Dental appliances are an alternative therapy for CPAP

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Sleep-disordered breathing (SDB) has been associated with insulin resistance and glucose intolerance, and is frequently found in people with type 2 diabetes. SDB not only causes poor sleep quality and daytime sleepiness, but has clinical consequences, including hypertension and increased risk of cardiovascular disease. In addition to supporting the need for further research into the links between SDB and diabetes, the International Diabetes Federation Taskforce on Epidemiology and Prevention strongly recommends that health professionals working in both type 2 diabetes and SDB adopt clinical practices to ensure that a patient presenting with one condition is considered for the other.

Conclusions

There is a high prevalence of OSA in people with type 2 diabetes and abnormal glucose metabolism, which may in part be explained by obesity. Conversely, people with OSA have a high prevalence of type 2 diabetes and related metabolic disorders. There is a link between OSA and daytime somnolence, hypertension and CVD. In a group already at high risk of CVD, consideration should be given to a contribution from OSA. Questionnaires and clinical characteristics may identify people with an increased likelihood of having OSA, and diagnosis can be confirmed by appropriate investigation. These studies have traditionally been conducted in an inpatient setting. However, where such facilities are limited, simpler home monitoring devices can aid in the diagnosis.

Available therapies for OSA include weight reduction in the overweight and obese, reduction in alcohol intake, use of CPAP and use of dental appliances.

The benefits of treatment of OSA have been established for improvement in quality of life measures (e.g. improved sleep, reduced fatigue and daytime somnolence) and improved blood pressure control and other cardiovascular risk factors have been suggested but have yet to be consistently demonstrated. Management of OSA should focus initially on weight reduction for the overweight and obese. CPAP is the current best treatment for moderate to severe OSA and should be considered where appropriate.

Courtesy of:

Kent Smith, DDS • 21st Century Dental • 4301 North MacArthur Blvd. • Suite 100 • Irving, TX 75038

Phone: 972-255-3712 • Fax: 972-255-5693

Web: <http://kentsmithdds.snoringintsexy.com> • Email: kentsmith@21stcenturydental.com