

Oral Appliance Therapy in Patients With Daytime Sleepiness and Snoring or Mild to Moderate Sleep Apnea: A Randomized Clinical Trial

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Importance: Oral appliances that move the mandible forward during sleep are suggested as treatment for mild to moderate obstructive sleep apnea.

Objective: To test whether an adjustable, custom-made oral appliance improves daytime sleepiness and quality of life in patients with daytime sleepiness and snoring or mild to moderate obstructive sleep apnea.

Design, Setting, and Participants: Ninety-six patients with daytime sleepiness and an apnea-hypopnea index (AHI) lower than 30 were included in a randomized, placebo-controlled, parallel trial in Umeå, Sweden, from May 2007 through August 2011.

Interventions: Four months' intervention with an oral appliance or a placebo device.

Main Outcomes and Measures: Daytime sleepiness was measured with the Epworth Sleepiness Scale, the Karolinska Sleepiness Scale, and the Oxford Sleep Resistance (OSLER) test. Quality of life was assessed with the Short-Form 36-Item Health Survey (SF-36) and the Functional Outcomes of Sleep Questionnaire (FOSQ). Secondary outcomes included the apnea-hypopnea index, headaches, symptoms of restless legs, and insomnia.

Conclusions and Relevance: A custom-made, adjustable oral appliance reduces obstructive sleep apnea, snoring, and possibly restless legs without effects on daytime sleepiness and quality of life among patients with daytime sleepiness and snoring or mild to moderate sleep apnea.