

1) **Pancer et al.** *Evaluation of Variable Mandibular Advancement Appliances for Treatment of Snoring and Sleep Apnea.* CHEST; Vol 116, p 1511-1518, Dec 1999

2) **Lowe et al.** *Treatment, Airway and Compliance Effects of a Titratable Oral Appliance.* Sleep. 2000; 23: 172-178

3) **American Sleep Disorders Association Standards of Practice Committee.** *Practice Parameters for the Treatment of Snoring and Obstructive Sleep Apnea with Oral Appliances: Sleep 1995; 18:511-513*

4) **Clark et al.** *A Crossover Study Comparing the Efficacy of Continuous Positive Airway Pressure with Anterior Mandibular Positioning Devices on Patients with Obstructive Sleep Apnea.* Chest 1996; 109:1477-1483

5) **Ferguson et al.** *A Short Term Controlled Trial of an Adjustable Oral Appliance for the Treatment of Mild to Moderate Obstructive Sleep Apnea.* Thorax 1997; 52:362-368

6) **Fleetham et al.** *A Long Term Randomized Parallel Multicentre Study of an Oral Appliance vs nCPAP in the Treatment of Obstructive Sleep Apnea.* Am J Respir Crit Care Med 1997; 155 (part 2 of 2 parts):A939

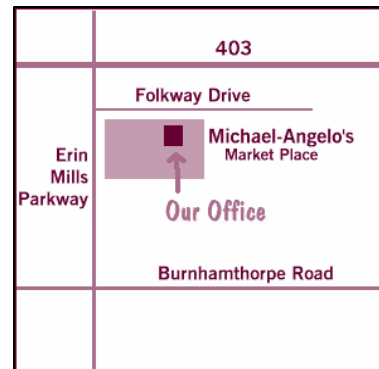
7) **Yoshida et al.** *Effects of a Mandibular Advancement Device for the Treatment of Sleep Apnea Syndrome and Snoring on Respiratory Function and Sleep Quality.* Cranio; 2000;18:2.



John S. Viviano B.Sc. D.D.S., obtained his credentials from the University of Toronto and has practiced General, Family and Cosmetic Dentistry in Ontario, Canada since 1983.

He maintains a special interest in the conservative treatment of sleep-disordered breathing. A member of various sleep organizations, he is credentialed by the certifying board of the Academy of Dental Sleep Medicine, and has lectured on the treatment of sleep disordered breathing and the use of Acoustic Reflection. He has authored articles reviewing Acoustic Reflection and establishing protocols for its use in assessing airway normalization.

Dr. Viviano utilizes various appliance designs including trial appliances in his conservative therapy of sleep-disordered breathing.



Snoring & Sleep Apnea

Airway Orthotic Therapy



Dr John Viviano

Conservative Therapy
Snoring-Sleep Apnea
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Sleep Disorders

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Airway Orthotic Therapy

The American Academy of Sleep Medicine (AASM) is a Medical organization whose mandate includes Accreditation, Continuing Education, Fellowship Training, and Standards of Practice for Physicians, Dentists and technicians involved in Sleep Medicine.

The AASM recommends that the first line of therapy is to establish healthy “Lifestyle Choices” and “Sleep Hygiene”.

These efforts alone may not resolve a more serious sleep disorder, but are likely to reduce it’s severity. Should further therapy be necessary, they have made recommendations on the use of nasal continuous positive airway pressure (nCPAP), Surgery and Airway Orthotic Therapy (AOT) based on the results of current research.

Airway Orthotic Therapy (AOT) has been demonstrated to be very effective for simple snoring and all levels of Obstructive Sleep Apnea (OSA)¹.

Studies demonstrate that they effectively treat “moderate sleep apnea” (15-30 events/H) 80% of the time, and “severe sleep apnea” (> 30 events/H) 61% of the time², and that “Snoring is improved in almost all patients and is often eliminated”³.

By altering jaw posture, most often forward by a few millimeters, tension is placed on the soft tissues that make up the airway, preventing them from vibrating and the airway from collapsing.



Airway Orthotic Therapy

The AASM states that Airway Orthotics “are indicated for use in patients with primary snoring or mild OSA who do not respond to or are not appropriate candidates for treatment with behavioral measures such as weight loss or sleep position change”³.

The AASM goes on to state that Airway Orthotics “are indicated for patients with moderate to severe OSA who are intolerant or refuse treatment with nCPAP”³.

Crossover studies comparing AOT and nCPAP demonstrate that AOT is effective in treating snoring and mild to moderately severe OSA, and is preferred by 10 out of 11 patients as a long term treatment⁴.

Any Orthotic that manipulates the mandible to the same degree can be expected to produce an equivalent improvement in symptoms. The issue then becomes one of comfort and compliance^{4,5,6}.

Airway Orthotic Therapy is conservative and completely reversible. Side effects are usually short lived and are rarely a problem. Approximately 14% of patients experience some tooth movement; mostly minor in nature.

Long term compliance for AOT has been demonstrated to be 90% after 2 1/2 years⁷.