



# OVENTUS AIRWAY TECHNOLOGY

CHANGING THE  
PARADIGM OF CARE FOR  
OBSTRUCTIVE SLEEP  
APNEA (OSA)

Introducing an innovative approach to oral appliance therapy – a treatment platform featuring **Oventus Airway Technology**.

With a unique, low resistance airway incorporated into its patented design, the O<sub>2</sub>Vent™ customized oral appliances deliver air to the back of the throat, allowing for breathing through the appliance, bypassing nasal resistance and obstruction of the oropharynx.

## DESIGN TECHNOLOGY

- > Customized 3D titanium printed airway channel
- > Provides mandibular advancement and jaw stabilization
- > Enables unobstructed airflow through the device to the back of the throat, bypassing nasal resistance and obstruction of the oropharynx

## AIRWAY TECHNOLOGY

- > Integrates an airway that enables low resistance airflow thus reducing negative pressure swings and stabilizing the airway
- > Addresses non-adherence challenges that current oral appliance and CPAP therapies face, due to nasal congestion or obstruction
- > Resolves the unmet challenges associated with increased nasal resistance which can lead to mouth breathing and CPAP therapy abandonment

## PATIENT BENEFITS

- > Discreet treatment
- > Adaptable to any lifestyle
- > Comfortable
- > Requires less jaw advancement

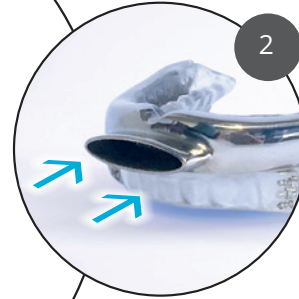


# HOW OVENTUS AIRWAY TECHNOLOGY WORKS

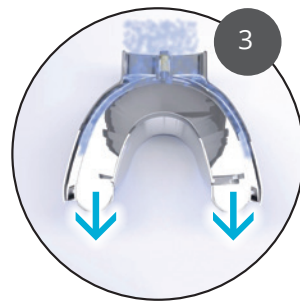
Nose breathing during sleep is ideal and patients should breathe through their nose to the extent they can. In the case of nasal resistance, nasal obstruction or soft palate collapse, a patient would normally experience a respiratory event or arousal and may then convert to mouth breathing, leading to an unstable airway. Oventus Airway Technology is designed to allow continued air flow from the mouth to the oropharynx in the presence of nasal or soft palate obstruction. This provides an opportunity for normal ventilation.



1 The device advances the lower mandible to stabilize jaw position, bringing the tongue forward and opening the airway.



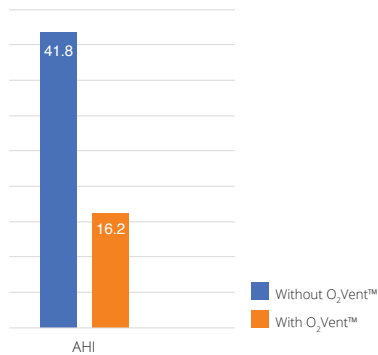
2 If there is reduced flow through the nasal airway or a soft palate obstruction occurs, air can be drawn into the front of the device while the lips maintain an oral seal around the device extension.



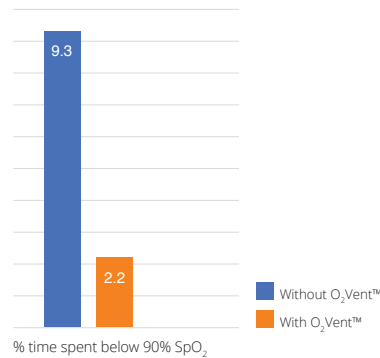
3 When oral breathing occurs, air passes through the air channel to the back of the throat and oropharynx, which approximates the average patent nasal airway<sup>1</sup>.

## CLINICAL RESULTS WITH THE O<sub>2</sub>VENT™

DEMONSTRATES SIGNIFICANTLY IMPROVED APNEA-HYPOPNEA INDEX

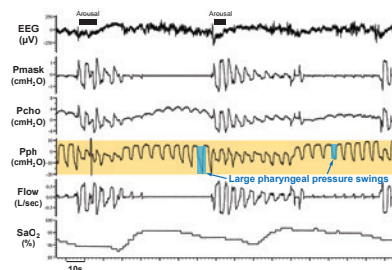


REDUCTION IN TIME SPENT BELOW 90% OXYGEN LEVELS DURING POLYSOMNOGRAPHY

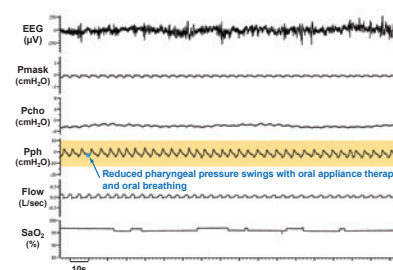


WITH THE O<sub>2</sub>VENT™ T, (AIRWAY OPEN) PHARYNGEAL PRESSURE SWINGS WERE REDUCED WHICH DEMONSTRATES EFFICACY IN THE PRESENCE OF HIGH NASAL RESISTANCE.

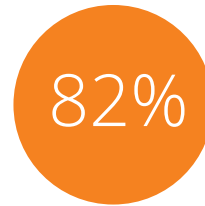
A: NO ORAL APPLIANCE (NO CPAP)<sup>2</sup>



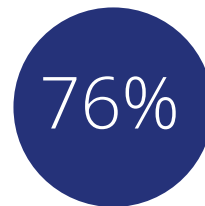
B: ORAL APPLIANCE AIRWAY OPEN (NO CPAP)



100% improvement in snoring reduction



82% elimination of snoring



76% success rate (defined as  $\geq 50\%$  reduction in Apnea-Hypopnea Index [AHI])

<sup>2</sup> Jason Amatoury, Benjamin Tong, Chinh Nguyen, Irene Szollosi, Danny J. Eckert. The role of a novel oral appliance therapy device on pharyngeal pressure swings and CPAP requirements during sleep in obstructive sleep apnoea: A pilot study. Abstract and poster presentation submitted at AADSM Boston 2017.

<sup>1</sup> Lavery D, Hart C et al. Safety and Efficacy of a Novel Oral Appliance in the Treatment of Obstructive Sleep Apnea. Journal of Dental Sleep Medicine Vol.4 No.3 July 2017

# OVENTUS TREATMENT PLATFORM

The Oventus portfolio currently includes two oral appliance options, all incorporating the **Oventus Airway Technology**. Dentists may select a product/ titration mechanism based on clinical preference or variation in patient anatomy.



## O<sub>2</sub>VENT™ W

A slimline winged appliance that uses a dual mechanism to stabilize and advance the mandible, still enabling opening of the mouth.



## O<sub>2</sub>VENT™ T

The "T" appliance utilizes an anterior screw and adjustment key to optimize titration, locking the upper and lower trays together when in use and enabling lateral movement.

## O<sub>2</sub>VENT™ SELECTION FOR YOUR PATIENTS

	O <sub>2</sub> Vent™ W	O <sub>2</sub> Vent™ T
INDICATIONS	> Where titration, opening and anterior movement <b>may be present</b> .	> Where titration and lateral movement <b>may be suspected or confirmed</b> .
SUITED TO	> Patients who clench or grind their teeth anteriorly.	> Patients who clench or grind their teeth laterally. > Patients that mouth breathe or mouth falls open during sleep – may need to add elastics.
BENEFITS	> Ability to open and speak while wearing, less bulk, robust titration mechanism.	> Titration component simple and accessible from outside the mouth (lab titration), lateral movement possible.
RISKS	> Wings disengage with extreme opening, patient reverts to mouth breathing without elastics.	> Patients cannot open mouth with device in.

Patient conditions including severe bruxism must be suitably assessed prior to the prescription of O<sub>2</sub>Vent™ devices.

# OVENTUS TREATMENT PLATFORM PRODUCT SPECIFICATIONS



FEATURES	O <sub>2</sub> Vent™ T	O <sub>2</sub> Vent™ W
Oventus Airway Technology	YES	YES
3D printed in Titanium	YES	YES
Polymer insert	YES	YES
2 piece titratable design	YES	YES
Patient/Clinician can change level of advancement easily	YES	YES
Patient can open their mouth while in use	NO	YES
Titration mechanism	Anterior screw and adjustment key	Lateral extension and wing design
Range of advancement	2mm retrusive 5mm protrusive	6mm protrusive No retrusion
Increments of titration	0.5mm per 1 turn of 360 degrees	0.1 mm per 1 turn of 90 degrees

## A UNIQUE TREATMENT ALTERNATIVE FOR PATIENTS WITH UNMET NEEDS

Online, on-demand training modules are provided for your convenience  
and phone support is available as needed.



Please call **1-866-835-0116** or email  
[support@oventusmedical.com](mailto:support@oventusmedical.com)

[www.oventusmedical.com](http://www.oventusmedical.com)

Oventus have achieved Global Market Access through Medical Device Single Audit Program (MDSAP).



Certified to ISO 13485 quality management standards for medical devices by TÜV SÜD Product Service GmbH.