

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 O₂Vent™ customized oral appliances deliver air to the back of the mouth, allowing for breathing through the appliance, bypassing nasal resistance and velopharyngeal obstruction.

DESIGN TECHNOLOGY

- Customized appliances using patented CAD software for superior comfort and fit
- 3D titanium printing for enhanced strength and durability
- Manufactured and accredited according to ISO 13485 international quality management system standards

AIRWAY TECHNOLOGY

- Unobstructed airflow through the device to the back of the throat bypassing nasal resistance and velopharyngeal obstruction
- In-built airway enables low resistance device-breathing, 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

TREATMENT VERSATILITY

- Design technology can be deployed across any style of mandibular advancement device, all with the ability to incorporate CPAP therapy

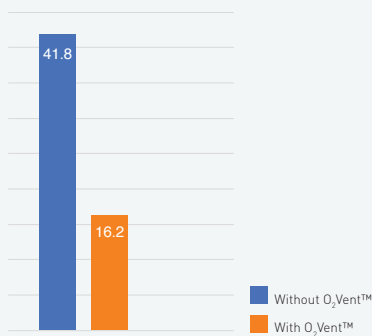


HOW OVENTUS AIRWAY TECHNOLOGY WORKS

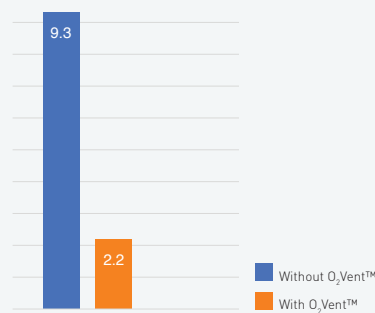


CLINICAL RESULTS WITH THE O₂VENT™

REDUCED AHI (P<0.001)

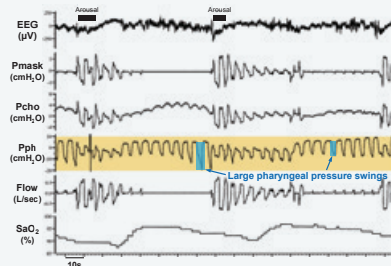


REDUCED OXYGEN DESATURATION T90% (P=0.001)

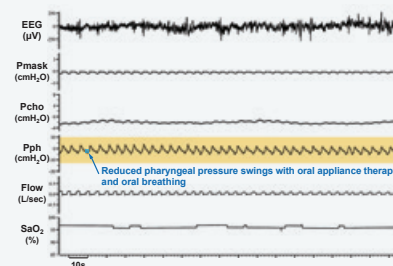


REDUCED PHARYNGEAL PRESSURE SWINGS WITH OVENTUS AIRWAY TECHNOLOGY AND DEVICE BREATHING

A: NO ORAL APPLIANCE (NO CPAP)



B: ORAL APPLIANCE AIRWAY OPEN (NO CPAP)



100%

100% significant improvement in snoring

82%

82% elimination of snoring

76%

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

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 apnea: A pilot study

Hart C, Lavery D, Czyniewski S, Beer F. Effects of a Novel Device on AHI and Snoring in Patients with Obstructive Sleep Apnoea: A Pilot Study. The study has been accepted for publication in the Journal of Dental Sleep Medicine, and it is available at <http://www.jdsm.org/AcceptedPapers.aspx>.

OVENTUS TREATMENT PLATFORM

The Oventus portfolio currently includes three 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.



O₂VENT™ W
(pending FDA clearance)

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



O₂VENT™ 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.



O₂VENT™ MONO

The original Oventus device, the Mono advances the mandible to a fixed protrusive bite.

FUTURE DEVELOPMENTS*

The Oventus Airway Technology enables exciting opportunities for alternative treatment options and combination therapy.

- **Oventus Connect – COMING SOON** – a one-size-fits-all adaptor to potentially reduce CPAP pressure requirements and remove the need for masks and head straps. Offers a solution to patients with non-compliance or intolerance issues relating to nasal congestion, air pressure or mask issues.
- **Temporary devices for immediate therapy** – provides clinicians with the option to deliver immediate therapy to patients prior to progressing to a customized device.
- **Compliance monitoring** – this in-built monitor technology will enable the recording of compliance and efficacy data, all easily accessible on an Oventus App. Used with an integrated oximeter, it provides Level III home sleep study data, allowing remote patient management to save time and expense.
- **Miniaturized CPAP pumps** – with minimal pressure and flow requirements, the Oventus Airway Technology enables the re-engineering of CPAP pumps to provide a more compact and portable solution.




ONGOING CLINICAL STUDIES ARE TAKING IT FURTHER

Current studies are investigating upper airway physiology to validate the Oventus Airway Technology’s impact on efficacy and compliance. This includes the effect of the low resistance airway on pharyngeal collapsibility when used in combination therapy – enabling the reduction in pressure requirements and the ability to breathe physiologically while simultaneously applying CPAP.

“Changing the paradigm of care for OSA”

* Products still in development. Not yet FDA cleared.

OVENTUS TREATMENT PLATFORM PRODUCT SPECIFICATIONS

FEATURES	 O ₂ Vent™ Mono	 O ₂ Vent™ T	 O ₂ Vent™ W (Pending FDA clearance)
Oventus Airway Technology	YES	YES	YES
3D printed in Titanium	YES	YES	YES
Polymer inner	YES	YES	YES
2 piece titratable design	NO	YES	YES
Patient/Clinician can change level of advancement easily	NO	YES	YES
Patient can open their mouth while in use	NO	NO	YES
Titration Mechanism	NONE	Anterior screw and adjustment key	Lateral extension and wing design
Range of advancement	NIL without reline	2mm retrusive 5mm protrusive	6mm protrusive No retrusion
Increments of Titration	NIL	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

Oventus clinical specialists are ready to support the introduction of the Oventus devices into your practice. In-clinic training can be arranged to equip you and your team with the knowledge you need to introduce your patients to the Oventus Treatment Platform.



Please call **844-780-5957**
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www.oventusmedical.com

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

