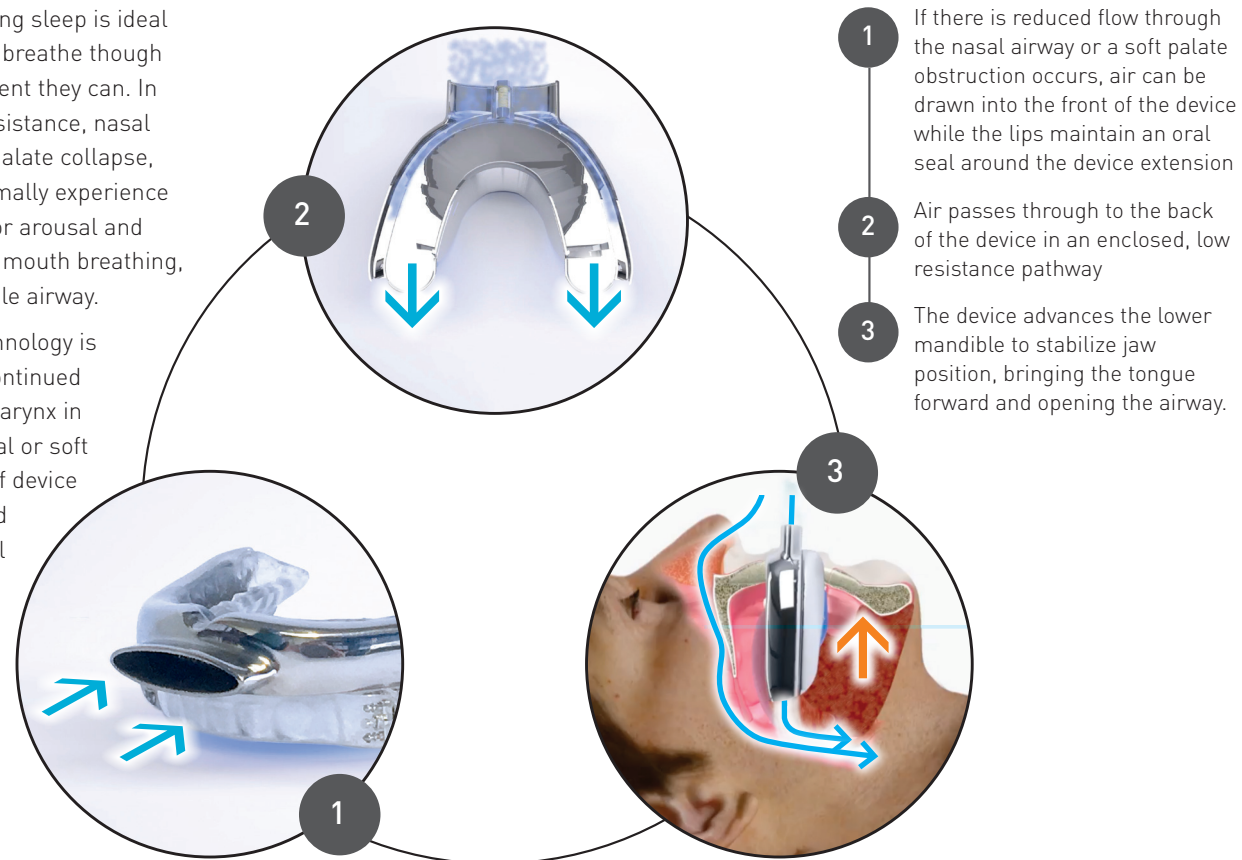


# HOW OVENTUS AIRWAY TECHNOLOGY WORKS

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 to the oropharynx in the presence of nasal or soft palate obstruction. If device breathing is required during sleep, an oral seal is maintained and ventilation normalizes.



# 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.

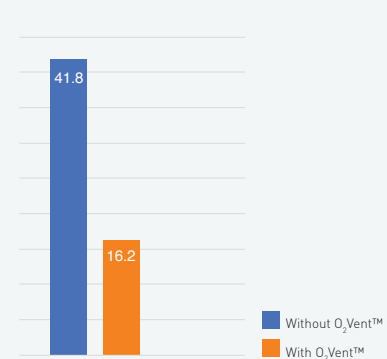


O<sub>2</sub>VENT™ T

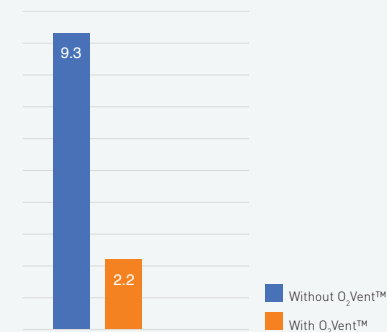
The "T" appliance utilizes an anterior screw and adjustment key to optimize titration, locking the upper and lower trays together when in use and enabling lateral movement.

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

REDUCED AHI (P<0.001)

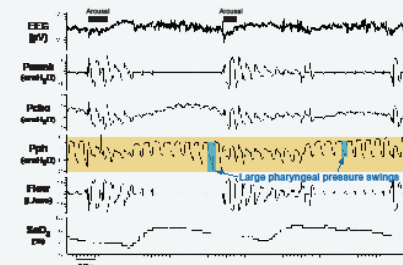


REDUCED OXYGEN DESATURATION T90% (P=0.001)

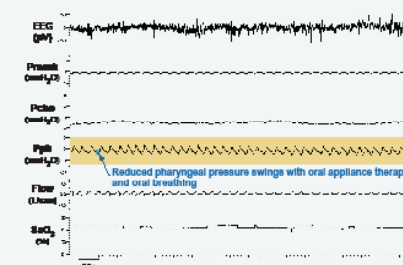


REDUCED PHARYNGEAL PRESSURE SWINGS WITH OVENTUS AIRWAY TECHNOLOGY AND DEVICE BREATHING

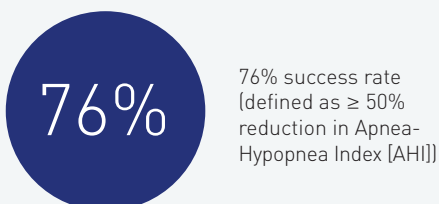
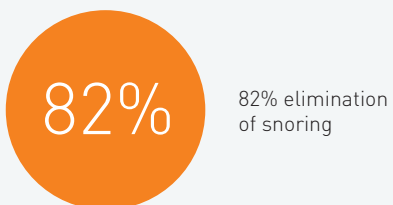
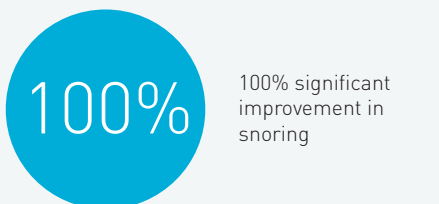
A: NO ORAL APPLIANCE (NO CPAP)



B: ORAL APPLIANCE AIRWAY OPEN (NO CPAP)



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



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

# FUTURE DEVELOPMENTS\*

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

- **Temporary devices for immediate therapy** – will provide clinicians with the option to deliver immediate therapy to patients prior to progressing to a customised device.
- **CPAP Connection** – Attaching to the front of the Oventus Airway the connector enables mask-less low pressure delivery of positive air pressure addressing the main reasons for patients failing treatment and bringing more patients into care. Can be used in conjunction with the temporary device as an alternative CPAP interface in the sleep clinic setting or home care setting.
- **Compliance and airflow monitoring** – this inbuilt monitor technology will enable the recording of compliance and efficacy data, all easily accessible on an Oventus App.
- **In Built Level III Home Sleep Test** – Sensor chips in the PAP Connection combined with a finger pulse oximeter will provide Level III home sleep study data, allowing remote patient management to save time and expense.
- **Miniaturised CPAP pumps** – with minimal pressure and flow requirements, Oventus Airway Technology enables the re-engineering of CPAP pumps to provide a more compact and portable solution.

\* Products still in development. Not yet FDA cleared.

## 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”**