



BETTER SLEEP, BETTER HEALTH *and a BETTER LIFE*

Media release

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Is this what the future of treating sleep apnea looks like?

An Australian innovator in sleep apnea will unveil latest advancements in the field, which are changing the way the disease is treated, in San Francisco next week (April 20th).

Dr Chris Hart will join more than 30 international speakers at 3DHEALS2017 - the first collaborative conference in the U.S. aiming to create a global healthcare community focusing on 3D printing and related technologies.

More than 500 delegates from 80 companies will look at the growing use of 3D printing in healthcare and emerging technologies, like Robotics.

Dr Hart, founder and clinical director of Oventus Medical, has built a national network of dental clinics within Australia delivering his sleep apnea device, the O₂Vent™ T.

With its unique, patented airway, the O₂Vent™ T is changing the way the disease is treated, both in Australia and internationally.

Designed with CAD software and then 3D printed in titanium, the oral device is custom made for each patient.

Dr Hart said 3D printing was the only option for manufacturing the device because each contained a complex, hollow three-dimensional structure, that couldn't be milled, cast or moulded.

"The ability to custom design a large number of devices with this three dimensional airway and to be able to print them simultaneously was the game changer," he said.

"It made the O₂Vent™ T commercially viable and led to a partnership with Australia's peak research body, the CSIRO and developing the first generation product which was on the market in about a year."

A severe apneic with nasal obstruction, Dr Hart recognised up to half of his patients also suffered from increased nasal congestion.

“Realising that airway issues were a major issue for patients and also in adults with obstructive sleep apnea was a light bulb moment,” he said.

“By not addressing these issues, the long term oral health of my patients and the success rates of the dentistry I was performing was at risk.”

Oventus is continuing to build clinical evidence, with a trial now under way testing whether including a device with its own airway, either on its own or with other therapies like CPAP (Continuous Positive Airway Pressure), would help even the most severe cases of OSA.

“This is a unique solution for which there is a clear indication, a massive unmet clinical need and a growing body of evidence that will lead to a new paradigm and standard of care for treating OSA,” Dr Hart said.

The O₂Vent™ T was launched in the San Francisco and Bay area in January. It is currently being rolled out in a number of U.S. states.

Up to 70 million Americans suffer from sleep disorders, with 12 to 18 million suffering sleep apnea.

-ENDS-

Media and interview opportunities:

Dr Chris Hart, BSc. BDSc.(Hons) M.Phil.(Cantab), Oventus founder and Clinical Director

Dr Jenny Chen, M.D. CEO/Founder 3DHEALS – a company focusing on curating healthcare 3D printing ecosystems.

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About Oventus

Oventus is a Brisbane based medical device company that is commercialising a suite of oral appliances for the treatment of sleep apnoea and snoring. Unlike other oral appliances, the Oventus devices have a unique and patented airway within the device that delivers air to the back of the mouth whilst alleviating multiple sites of obstruction including the nose, soft palate and tongue. They are particularly designed for the many people that have nasal obstructions and consequently tend to mainly breathe through their mouth. While it may seem counterintuitive, the device actually prevents oral breathing. The O₂Vent™ T is designed to allow nasal breathing when the nose is unobstructed, but when obstruction is present; breathing is supplemented via the airways in the appliance. According to a report published by the Sleep Health Foundation Australia, an estimated 1.5 million Australians suffer with sleep disorders and more than half of these suffer with obstructive sleep apnea.¹ Continuous positive airway pressure (CPAP) is the most definitive medical therapy for obstructive sleep apnoea, OSA, however many patients have difficulty tolerating CPAP². Oral appliances have emerged as an alternative to CPAP for obstructive sleep apnoea treatment.³

1. Deloitte Access Economics. *Reawakening Australia: the economic cost of sleep disorders in Australia, 2010*. Canberra, Australia.
2. Beecroft, et al. Oral continuous positive airway pressure for sleep apnoea; effectiveness, patient preference, and adherence. *Chest* 124:2200–2208, 2003
3. Sutherland et al. Oral appliance treatment for obstructive sleep apnoea: An updated *Journal of Clinical Sleep Medicine*. February 2014.