

Sleep Diagnostics and Sleep Theragnostics Testing Device for Obstructive Sleep Apnea allowing Sleep Physicians and Dentist to Determine which Patient would Benefit from Oral Appliance Therapy



Paul Cataford
CEO & Founder

Zephyr Sleep Technologies, Inc.
www.zephyrsleep.com

Contact:
Paul Cataford
587-332-0257
pcataford@zephyrsleep.com

Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine

CEOCFO: Mr. Cataford, would you tell us about Zephyr Sleep Technologies?

Mr. Cataford: Zephyr Sleep Technologies was founded in 2010 and was spun out of the University of Calgary. The company specializes in sleep diagnostics and sleep theragnostics for treating sleep disordered breathing.

CEOCFO: Is that all under the category of sleep apnea?

Mr. Cataford: Sleep apnea is one form of sleep disordered breathing; the patient actually stops breathing when they sleep. There are also other ailments including inspiratory flow limitation or high upper airway resistance. Then there is just simple snoring which has no medical issues, but is certainly an issue for the bed partner!

CEOCFO: What is your approach and what do you understand about this a problem that perhaps others do not?

Mr. Cataford: About 20% of the North American population suffers from something called obstructive sleep apnea or OSA, which is a disease causing a patient to stop breathing while they sleep. As a result, these people wake up suddenly, or never get into deep sleep – this is stressful on the body and the cardiovascular system. OSA has been tightly linked to a number of other diseases including hypertension, cardiovascular disease and diabetes. In addition patients with OSA have relatively poor quality of life and are a danger to themselves and others every time they get behind the wheel of a car, or operate heavy machinery.

The so-called gold standard treatment for OSA is something called a CPAP which is short for Continuous Positive Airway Pressure. That is typically prescribed by sleep physicians. While a great therapy, the challenge with CPAP is patient often refuse treatment, and in those cases where they give it a go – are often non compliant within 6 months. The alternatives to CPAP are not as well known by sleep physicians. One promising treatment is oral appliance therapy, where a dentist makes a patient a custom oral appliance which keeps the mandible at a fixed position, so when the person sleeps on their back or side, the upper airway stays open and does not collapse. Patient acceptance and treatment adherence is high for an oral appliance. People wear mouthguards for bruxing, or teeth grinding, teeth whitening and retainers all of the time. The challenge for oral appliances is that they are only capable of treating in about 60% of the cases. If a sleep physician doesn't know which patients will respond to the treatment, they will not prescribe the treatment. The second issue relates to the amount of mandible protrusion – no one knows where to set the mandible.

CEOCFO: What have you developed at Zephyr?

Mr. Cataford: Recognizing that patients prefer oral appliance therapy over CPAP, and that sleep physicians have no way of selecting patients is the problem. Zephyr has created a medical device to tests a patient's response to treatment and