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# DENTAL SLEEP MEDICINE TRACK

FULL TRACK RUNS SATURDAY - TUESDAY

## DENTAL TRACK OVERVIEW

TYPE	DAY	TITLE	HOURS
COURSE	Saturday	Dental sleep medicine   Part 1	8:30am - 5:00pm
COURSE	Sunday	Dental sleep medicine   Part 2	8:30am - 12:50pm
SYMPOSIUM	Monday	Prognostic value of the different available methods for upfront prediction of treatment outcome with non-CPAP therapy towards a more personalized treatment of obstructive sleep apnea	9:00am - 10:30am
SYMPOSIUM	Monday	Treatment modalities for sleep apnea patients with complex comorbidities	10:45am - 12:15pm
KEYNOTE	Monday	Oral appliance therapy for obstructive sleep apnea: Ready for prime time	2:00pm - 2:45pm
SYMPOSIUM	Monday	Imaging and sleep apnea: Can we predict the presence of disease and treatment outcomes?	3:00pm - 4:30pm
SYMPOSIUM	Monday	Advances in precision application of dental appliances: Indications, design, and prognostic risk	4:30pm - 6:00pm
SYMPOSIUM	Tuesday	Combination therapy approaches for OSA: Can we improve effectiveness?	9:00am - 10:30am

19.25 HOURS OF DENTAL CONTENT INCLUDED IN THE WORLD SLEEP 2019 FINAL SCIENTIFIC PROGRAM



## DENTAL COURSES

### C17 Dental Sleep Medicine

#### Full Day + Half Day Course

**FULL:** Saturday, September 21, 2019

**HALF:** Sunday, September 22, 2019

Room 224 | Chair Fernanda Almeida (Canada)

#### Summary

The two most common and effective therapies used to treat sleep apnea are: (1) Continuous or Automatic Positive Airway Pressure (PAP), and (2) Oral Appliances. Dental Sleep Medicine is one of the fastest growing fields in dentistry, with large numbers of individuals with sleep apnea being treated with oral appliances.

This full day + half day course will be focused on oral appliance therapy for the treatment of sleep apnea, as well as touching on other areas in dental sleep medicine, like pediatric sleep apnea and bruxism. This is a clinically-focused and evidence-based continuing education program combining worldwide experts to bring to attendees the newest knowledge and its application to clinical practice. The course will be divided into lectures on the first day and lectures with discussion panels for the second day.

## REGISTRATION OPTIONS:

Dental Course Only .....	\$275
Dental Course + Monday Symposia .....	\$450
Dental Course + Congress Registration (Member) .....	\$670

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**DENTAL COURSE AGENDA | FULL DAY, PART 1 | SATURDAY, SEPTEMBER 21, 2019**

8:30am – 8:40am

**Welcome**

*Fernanda Almeida (Canada)*

8:40am – 9:10am

**Treatment of mild OSA: Should I bother treating it?**

*Raphael Heinzer (Switzerland)*

9:10am – 9:40am

**CV consequences of OSA: Can we rely on PSG data, biomarkers or symptoms?**

*Sanjay R. Patel (United States)*

9:40am – 10:10am

**Impact of oral appliance on CV and diabetes**

*Tea Galic (Croatia)*

10:10am – 10:30am

**Coffee break**

10:30am – 11:00am

**Oral appliance in edentulous and almost edentulous patients**

*Marc Braem (Belgium)*

11:00am – 11:30am

**Pregnancy and impact of OSA: Can we use oral appliances?**

*Sushmita Pamidi (Canada)*

11:30am – 12:00pm

**Pediatric OSA and craniofacial characteristics – findings of the PDSA trial**

*Benjamin Pliska (Canada)*

12:00pm – 12:30pm

**History of oral appliance therapy**

*Gail Demko (United States)*

12:30pm – 1:30pm

**Lunch break**

1:30pm – 2:00pm

**Mean Disease alleviation and compliance**

*Kate Sutherland (Australia)*

2:00pm – 2:30pm

**Predictors of oral appliance therapy: Are the answers all on the upper airway**

*Peter Cistulli (Australia)*

2:30pm – 3:00pm

**Patient management before and after OA insertion**

*John Tucker (United States)*

3:00pm – 3:30pm

**Break**

3:30pm – 4:00pm

**Periodontal disease as a comorbidity or side effects on oral appliance therapy**

*Fernanda Almeida (Canada)*

4:00pm – 4:30pm

**Evaluating and applying the evidence around oral appliance therapy**

*Leslie Dort (Canada)*

4:30pm – 5:00pm

**The past and the future of DSM: Get your questions answered by Alan Lowe**

*Alan Lowe (Canada)*

**DENTAL COURSE AGENDA | HALF DAY, PART 2 | SUNDAY, SEPTEMBER 22, 2019**

8:30am – 8:50am

**Alternative, emerging and combination therapies: Phenotyping and its relevance to dental sleep medicine**

*Danny Eckert (Australia)*

8:50am – 9:10am

**Oral appliance and oxygen therapy: Distinct or complimentary interventions?**

*Scott Sands (United States)*

9:10am – 9:30am

**Cannabis, bruxism and OSA: Where is the smoke?**

*Gilles Lavigne (Canada)*

9:30am – 9:50am

**CPAP, position training and other combination therapies to OAT**

*Marijke Dieltjens (Belgium)*

9:50am – 10:20am

**Discussion panel: The pros and cons of combination therapy**

*Fernanda Almeida (Canada); Danny Eckert (Australia); Scott Sands (United States); Gilles Lavigne (Canada); Marijke Dieltjens (Belgium)*

10:20am – 10:40am

**Coffee break**

10:40am – 11:00am

**The latest questions on oral appliance therapy bruxism and OSA, association or causality? How to treat?**

*Ramesh Balasubramaniam (Australia)*

11:00am – 11:20am

**Titration - is just a little too little?**

*Satoru Tsuiki (Japan)*

11:20am – 11:50am

**Status of bite changes and management**

*Julia Cohen-Levy (France)*

11:50am – 12:10pm

**Long term effectiveness of OAT**

*Marie Marklund (Sweden)*

12:10pm – 12:50pm

**Panel discussion: Get your clinical question addressed by a researcher**

*Leslie Dort (Canada); Ramesh Balasubramaniam (Australia); Satoru Tsuiki (Japan); Julia Cohen-Levy (France); Marie Marklund (Sweden)*



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■ **Prognostic value of the different available methods for upfront prediction of treatment outcome with non-CPAP therapy towards a more personalized treatment of obstructive sleep apnea**

9:00am – 10:30am | Room 119

**Summary** Obstructive sleep apnea (OSA) is increasingly recognized as a complex and heterogeneous disorder in terms of its causes, clinical expression and susceptibility to comorbidities. This poses challenges for a one-size-fits-all management approach to treat this disease, hence it represents an opportunity to tailor treatment to the individual patient. The pathophysiological traits of OSA comprise three phenotypical traits, one anatomical trait and one element fitting both the phenotypical and anatomical traits being the narrow, collapsible upper airway.

The different lectures within this symposium will focus on the assessment of these anatomical and phenotypical traits with various techniques, including different imaging techniques, endoscopy, multimodal techniques, remotely controlled mandibular protrusion technology, and, various types of phenotyping, based on data obtained during awake state, drug-induced sedation or natural sleep. The emerging evidence on the application of these different available methods in terms of predictive power for upfront prediction of non-CPAP treatment outcome will be reviewed, including recent results on innovative techniques including dynamic magnetic resonance imaging, feedback-controlled mandibular positioner, and non-invasive assessment of pathophysiological OSA traits derived from polysomnographic signals.

**Chair** Marie Marklund (Sweden)

4:30pm – 4:32pm

**Introduction**

4:32pm – 4:48pm

**What have we learned from the past about prediction of treatment outcome with non-CPAP treatment for sleep-related breathing disorders**

Marc Braem (Belgium)

4:48pm – 5:04pm

**The application of imaging to extract anatomical predictors of non-CPAP treatment success**

Richard Schwab (United States)

5:04pm – 5:20pm

**Multimodal prediction: Awake versus sleep-related assessments**

Peter Cistulli (Australia)

5:20pm – 5:36pm

**Feedback-Controlled Mandibular Positioner (F-RCMP) to predict oral appliance therapy outcome**

Shouresh Charkhandeh (Canada)

5:36pm – 5:52pm

**The role of pathophysiological phenotyping in predicting therapeutic outcome with upper airway stimulation and mandibular advancement device treatment**

Olivier Vanderveken (Belgium)

5:52pm – 6:00pm

**Conclusion**

■ **Treatment modalities for sleep apnea patients with complex comorbidities**

10:45am – 12:15pm | Room 119

**Summary** This symposium is focused on the clinical aspects of evaluation and treatment of patients with sleep apnea and other concomitant complex health issues. While traditional approaches to the treatment of sleep apnea are well described in the literature, when it comes to complex patients, the personalized approach is often a case by case decision. The session will describe the literature supporting the evaluation and treatment approach and other specific personalized approaches. CPAP use in psychiatric population and patients heart failure will be assessed and discussed. In the diabetic population, a team treatment approach will be examine, focused on treatment and ideal biomarker to assess outcomes. Oral appliance treatment role in the treatment of the above described diseases and more in depth in diabetes and periodontal disease will discussed.

**Chair** Hiroko Tsuda (Japan)

10:45am – 10:47am

**Introduction**

10:47am – 11:03am

**Incidence and treatment of OSA in the psychiatric population**

Nathaniel Marshall (Australia)

11:03am – 11:19am

**CPAP treatment for patients with heart failure**

John Fleetham (Canada)

11:19am – 11:35am

**Does CPAP improve diabetes outcomes in OSA patients?**

Sushmita Pamidi (Canada)

11:35am – 11:51am

**Oral appliances outcomes in diabetes and other complex cases**

Tea Galic (Croatia)

11:51am – 12:07pm

**Incidence of periodontal disease and treatment implications:**

**Mask and oral appliance fitting**

Lizzie Hill (United Kingdom)

12:07pm – 12:15pm

**Conclusion**

**KEYNOTE SPEAKER**



■ **K03: Oral appliance therapy for obstructive sleep apnea: Ready for prime time**

2:00pm – 2:45pm | Room 118

**Keynote** Peter Cistulli, MD, PhD (Australia)

**Summary** Oral appliances (OA) have emerged as the leading alternative to positive airway pressure (PAP) for Obstructive Sleep Apnoea (OSA) treatment. There is a strong evidence base demonstrating OA therapy improves OSA in the majority of patients, including some with more severe disease. They are generally well tolerated, and patients often prefer OA over PAP treatment. Despite the superior efficacy of PAP over OA, randomized controlled trials comparing the two indicate similar improvement in health outcomes such, as sleepiness, quality of life, driving performance, blood pressure, and other cardiovascular measures. The evidence base strongly supports the use of OA therapy in the management of OSA.



**MONDAY, SEPTEMBER 23, 2019 | ROOM 119**

■ **Imaging and sleep apnea: Can we predict the presence of disease and treatment outcome** | 3:00pm – 4:30pm | Room 119

**Summary** During this symposium advanced imaging techniques used for screening and prediction of treatment outcomes will be described. Simple smart phone photography accuracy in the screening of OSA will be described and the supporting literature will be discussed. Many forms of imaging have been used over the years in the search of phenotyping children and adults with OSA. Discussions of the identification of bony restriction or excess of soft tissue around the upper airway is highly important for the better understanding of future target treatment approaches and prevention of the disease. Imaging today is also used to identify function and non-static assessment of the upper airway musculature shows important insights of the disease, treatment options and outcomes.

**Chair** *Fernanda Almeida (Canada)*

3:00pm – 3:02pm

**Introduction**

3:02pm – 3:22pm

**Photography for the evaluation of facial profiles in obstructive sleep apnea**

*Kate Sutherland (Australia)*

3:22pm – 3:42pm

**Facial characteristics of children with OSA: Results of the PDSA cohort study**

*Fernanda Almeida (Canada)*

3:42pm – 4:02pm

**TAG-MRI phenotyping and predicting treatment outcomes**

*Peter Cistulli (Australia)*

4:02pm – 4:22pm

**The role of CBCT in the diagnosis and oral appliance treatment outcome**

*Bingshuang Zou (Canada)*

4:22pm – 4:30pm

**Conclusion**

■ **Advances in precision application of dental appliances: Indications, design, and prognostic risk**

4:30pm – 6:00pm | Room 119

**Summary** The clinical application of oral appliances has entered a more precise and refined stage. It plays an effective role in the treatment of various sleep-related breathing disorders, not only the obstructive sleep apnea syndrome. When considering indications, we should fully weigh the side effects and risks. Together, these constitute suitable objects for oral appliances. For adapting to the witness group, we should find ways to enhance the effectiveness and comfort of the two aspects. As a therapeutic method based on morphological changes, a large number of morphological analysis will appear in this section.

**Chair** *Fernanda Almeida (Canada)*

4:30pm – 4:32pm

**Introduction**

4:32pm – 4:48pm

**Oral appliance for Downs Syndrome**

*Fernanda Almeida (Canada)*

4:48pm – 5:04pm

**Application of oral appliance in Catathrenia (groaning):**

**Long-term follow-up of oral therapy on OSA**

*Xuemei Gao (China)*

5:04pm – 5:20pm

**Mechanism and efficacy of magnetic levitation mandibular elevator in treatment of obstructive sleep apnea syndrome**

*Xilong Zhang (China)*

5:20pm – 5:36pm

**Prediction in obstructive sleep apnoea: Diagnosis, comorbidity risk, and treatment outcomes**

*Kate Sutherland (Australia)*

5:36pm – 5:52pm

**3D imaging application in OSA**

*Bingshuang Zou (Canada)*

5:52pm – 6:00pm

**Conclusion**

**TUESDAY, SEPTEMBER 24, 2019 | ROOM 212**

■ **Combination therapy approaches for OSA: Can we improve effectiveness?** | 9:00am – 10:30am | Room 212

**Summary** OSA is a highly prevalent condition associated with daytime symptoms and cardiovascular and metabolic risk. However, available therapy options for OSA come with various therapeutic limitations. Standard care remains CPAP, a highly efficacious therapy but with the well-recognized limitation that a large proportion of OSA patients use it at suboptimal levels to achieve health effects, or abandon it altogether. Alternative therapies often fair better on patient adherence and preference. However, most alternative therapies do not eliminate all apneic events, leaving some level of residual OSA in most patients. Given that no single treatment is 'perfect', there is scope for combination therapy approaches to OSA treatment to improve treatment effectiveness. Combination therapy approaches can involve adjuncts to standard CPAP to improve effectiveness and meet patient needs.

Additionally, alternative therapies not completely efficacious on their own, can be combined to better eliminate the disease. Novel opportunities for combination therapies targeting non-anatomical pathophysiology are also emerging. This symposium will highlight advances in combination therapy approaches to OSA therapy.

**Chair** *Kate Sutherland (Australia)*

9:00am – 9:02am

**Introduction**

9:02am – 9:18am

**Combining the two main device therapies: CPAP and oral appliances**

*Fernanda Almeida (Canada)*

9:18am – 9:34am

**Targeting both jaw and body position in supine OSA: Oral appliances and positional therapy**

*Marijke Dieltjens (Belgium)*

9:34am – 9:50am

**Lifestyle intervention combined with OSA device treatment: CPAP and weight loss**

*Craig Phillips (Australia)*

9:50am – 10:06am

**Targeting pathophysiological mechanisms for combination therapy options**

*Scott Sands (United States)*

10:06am – 10:22am

**Combination drug therapy for the upper airway muscles**

*Luigi Taranto Montemurro (United States)*

10:22am – 10:30am

**Conclusion**