



2024 PHILADELPHIA **SLEEP CONFERENCE**



Post-Conference Report

March 22, 2024 | Live! Casino & Hotel Philadelphia



REPORT SPONSORED BY



BY THE NUMBERS



1

Day

16

Speakers

2

Educational
tracks

39

Exhibitors

PROGRAM OVERVIEW

Hosted at the Live! Casino & Hotel Philadelphia, the 12th annual Philadelphia Sleep Conference brought together a multidisciplinary group of sleep professionals to learn, build connections, and advance conversations about some of the latest topics and most important issues in sleep medicine today.

“The forward-looking presentations at the 2024 Philadelphia Sleep Conference reinforced that the future is very bright for sleep professionals,” said Conference Director Michael DiDomenico, publisher of *SleepWorld Magazine* and president of BreakAway Media Group. “It’s an honor to host this event every year. I truly enjoy seeing returning attendees deepen the connections they’ve made over the years and watching them welcome new sleep professionals into this dynamic and expanding field.”

The one-day hybrid event was a huge success, featuring a jam-packed agenda with two concurrent educational tracks—one for respiratory therapists and sleep technologists and another for physicians and dentists. Presenting 16 educational sessions led by some of the best and brightest experts in sleep medicine, the conference provided an engaging forum to talk about the latest advances in sleep technology and treatment with actionable insights that participants can put into practice in a variety of settings.

As usual, virtual or in-person participants could earn up to 10 continuing education credits from the Board of Registered Polysomnographic Technologists and the American Association for Respiratory Care. And this year, for the first time, the conference provided physicians, nurses, psychologists, and dentists who attended in person with the opportunity to earn up to six continuing education credits.

Thanks to the corporate sponsors, exhibitors, speakers, and attendees who made this year’s Philadelphia Sleep Conference one of the best yet!



PHYSICIAN TRACK

KEY TAKEAWAYS

In case you missed it, here are the highlights from five of the most impactful and compelling presentations from the physician track:



Audrey Wells, MD
Founder of Super Sleep MD

Sleep Loss Cancels Out Weight Loss

Obesity is on the rise both nationally and globally. A new study in *The Lancet* revealed that obesity in adults has more than doubled over the past three decades, and has quadrupled among children and adolescents.

A distinguished expert in both sleep and obesity medicine, Audrey Wells, MD, emphasized the role that promoting healthy sleep can play in obesity prevention, management, and treatment.

“Obesity is a chronic disease with physiologic adaptations that resist weight loss,” she said. “Weight loss requires day after day of good nutrition, exercise, and positive behavioral changes. Sleep deprivation, even if it’s subtle, will make weight loss more difficult and create vulnerability to weight regain.”

About 35 percent of American adults reported sleeping less than 7 hours, according to 2020 data from the Centers for Disease Control and Prevention. Research has shown a significant correlation between inadequate sleep (defined as less than 7 hours) and obesity.

Dr. Wells referenced multiple studies in which people with obesity have reported not sleeping well: indicating reduced sleep duration and quality, daytime fatigue and sleepiness, and the incidence of sleep disorders in this population, including obstructive sleep apnea (OSA) and insomnia.

“Health and sufficient sleep is critical for all components of obesity management,” Dr. Wells said. “Both physiological and psychological mechanisms promote weight gain if a person is not sleeping well.”

Outlining the four pillars of obesity management—nutrition, exercise, behavioral changes, and medical intervention (including anti-obesity medications and/or surgery), she detailed how insufficient sleep, low-quality sleep, and circadian misalignment can sabotage each one.

- *Nutrition:* Sleep loss affects dietary preferences, appetite hormones, and nutrient processing, leading to increased caloric intake, particularly from high-carbohydrate and fatty foods.
- *Exercise:* Sleep loss reduces physical activity, impairs muscle preservation during weight loss, and undermines the benefits of regular exercise.
- *Behavioral changes:* Sleep loss affects decision-making, emotional regulation, and behavior, promoting impulsive and reward-seeking tendencies.
- *Medical intervention:* Anti-obesity medications and bariatric surgery have been shown to be effective interventions for weight loss, but sleep loss can compromise their efficacy and contribute to weight regain.

The bottom line: Healthy sleep is essential for successful and sustainable weight loss, and sleep medicine professionals have a significant opportunity to help patients by treating sleep disorders and promoting good sleep hygiene.

Dr. Wells emphasized the need for a comprehensive approach to obesity management that includes interdisciplinary collaboration with sleep medicine professionals and other health care providers.



PHYSICIAN TRACK

KEY TAKEAWAYS



Funke Afolabi-Brown, MD

Founder of RestfulSleepMD

Alternative Treatments of Pediatric Sleep-Disordered Breathing

Although OSA only affects approximately 1% to 5.7% of children, the disease has myriad consequences when left untreated in this population.

Funke Afolabi-Brown, MD, talked about the negative impact of OSA and other pediatric sleep disorders on neurocognitive and academic functioning, social-emotional and behavioral health, and physical wellness. Untreated OSA can lead to increased health care utilization, nocturnal enuresis, hyperactivity attention deficits, behavioral issues, poor academic performance, and even cardiopulmonary disease.

The peak prevalence of OSA occurs between ages 2 and 8, which coincides with the peak age of tonsillar and adenoid hypertrophy. That's why adenotonsillectomy is a first-line treatment for pediatric OSA—and it's often quite effective, provided the patient has no contraindications to surgery. However, there are patients who continue to experience residual OSA post-surgery.

"After treatment of sleep-disordered breathing, follow-up polysomnography testing is recommended to objectively ensure resolution," said Dr. Afolabi-Brown, a triple board-certified pediatric pulmonologist and sleep medicine physician.

In those cases, pediatric positive airway pressure is another commonly used intervention that is safe and effective, but compliance remains a major barrier to its use and it can present challenges for patients with craniofacial abnormalities.

"As our understanding of the complexities of OSA has grown, the options for management have continued to expand as well," Dr. Afolabi-Brown explained. "There are many new and emerging alternatives to treating sleep-disordered breathing in children, and being aware of these options empowers providers to help their patients make informed decisions that better align with their treatment goals."

She then provided a brief overview of a number of alternative treatment approaches, including:

- Supplemental oxygen.
- High-flow nasal cannula.
- Rapid maxillary expansion with an orthodontic appliance.
- Mandibular distraction osteogenesis.
- Weight loss.
- Medication management with leukotriene modifiers and intranasal steroids.

Dr. Afolabi-Brown talked about the effectiveness of these treatments and research documenting outcome measures for each, including improvements in sleep parameters, quality of life, and cognitive functioning.

She closed the talk by highlighting ongoing research and emerging therapies for OSA in the pediatric population, such as hypoglossal nerve stimulation and watchful waiting.



PHYSICIAN TRACK

KEY TAKEAWAYS



Haramandeeep Singh, MD

Chief Executive Officer and
President of iSleep Physicians

The Diagnosis and Treatment of Narcolepsy: Standard of Care Today

It's estimated that one in every 2,000 Americans has narcolepsy, a chronic neurological disorder affecting sleep-wake state stability that is characterized by excessive daytime sleepiness and REM sleep dysregulation. However, research has suggested that 50% or more of people in the U.S. who have narcolepsy have not yet received a diagnosis.

"Hypersomnias, such as narcolepsy, often go undiagnosed or misdiagnosed for many years, and as a result, the patient's quality of life and functioning remains suboptimal," said Aman Singh, MD, a board-certified sleep medicine and psychiatry specialist.

Although narcolepsy is a relatively rare condition, sleep medicine professionals encounter it quite frequently. Dr. Singh noted that narcolepsy was the second most common cause of excessive daytime sleepiness after OSA in sleep centers across the U.S. Other sleep disorders, including REM sleep behavior disorder, periodic limb movement disorder, insomnia, and OSA are frequent comorbidities of narcolepsy. In fact, about 25% of narcoleptics have a comorbid diagnosis of OSA.

Dr. Singh discussed the two main subtypes of narcolepsy:

- Type 1, which includes cataplexy (a sudden loss of muscle tone triggered by emotions).
- Type 2, which lacks cataplexy.

The hallmark symptom of both types is excessive daytime sleepiness, which is often accompanied by cataplexy (in type 1), hypnagogic/pompic hallucinations, sleep paralysis, and disrupted nocturnal sleep. Unfortunately, these symptoms sometimes lead to misdiagnosis as a psychiatric or neurological condition.

"The manifestations of narcolepsy are various and do not always fit inside the results of a simple test," Dr. Singh said. "I would encourage sleep professionals to think outside the box when it comes to making this diagnosis." He emphasized the need for good clinical judgment, documentation, and a comprehensive approach that involves utilizing multiple screening and diagnostic tools, including the Epworth Sleepiness Scale, polysomnography testing, multiple sleep latency testing, and assessment of cerebrospinal fluid hypocretin-1 levels.

After talking through the nuances of diagnosis, Dr. Singh gave attendees an overview of the recommended interventions for narcolepsy, including stimulants like modafinil and armodafinil, sodium oxybate, solriamfetol, and pitolisant. He presented research-backed outcomes data for each of drugs, showing varying degrees of clinically significant improvements in many areas that include excessive daytime sleepiness, cataplexy, disease severity, and quality of life.

"I would implore sleep professionals to utilize treatment options that are considered standard of care today, which are well-tolerated with minimal side effects," Dr. Singh said. "They can make a big difference in patients' lives, and are sometimes required to be used in combinations to do so."

Dr. Singh closed by highlighting a number of emerging interventions that could change the treatment landscape for narcolepsy, including orexin/hypocretin agonists, immunotherapy, gene therapy, and novel stimulants.



PHYSICIAN TRACK

KEY TAKEAWAYS



Colin Huntley, MD

Department of Otolaryngology-Head and Neck Surgery and Sleep Medicine at Thomas Jefferson University Hospital

The Current State of Hypoglossal Nerve Stimulation for OSA

Continuous positive airway pressure (CPAP) has remained the first-line treatment option for OSA for almost 40 years, but sleep medicine professionals are all too familiar with the challenges of poor long-term CPAP compliance. Colin Huntley, MD, shared a statistic with the audience from a 2022 study that indicated CPAP non-compliance rates remain as high as 34% with little improvement over the last two decades.

Highlighting the prevalence of OSA and its associated adverse health outcomes, he emphasized the need for effective alternative treatments. “Hypoglossal nerve stimulation is becoming an increasingly popular option for the management of obstructive sleep apnea,” said Dr. Huntley, a dual board-certified physician in otolaryngology and sleep medicine. “Through increased clinical use, social media, and industry marketing campaigns, many patients are now aware of this option and inquiring about their candidacy with their health care provider.”

One of two sleep surgeons with Jefferson Health to pioneer the use of hypoglossal nerve stimulation with the FDA-approved Inspire Upper Airway Stimulation system (Inspire Medical Systems Inc.), Dr. Huntley is internationally recognized as one of the most experienced surgeons to perform this innovative, minimally invasive procedure.

The device is turned on and off by a handheld remote, and it consists of three surgically implanted parts in the neck and chest:

- A breathing monitor placed next to the ribs detects each breath.
- A pulse generator placed in the chest sends an electrical impulse to a cuff electrode that fits around a branch of nerves under the tongue.

- The cuff electrode stimulates nerves that move the tongue to open the airway while the patient sleeps.

Dr. Huntley gave a brief overview of the scientific research behind hypoglossal nerve stimulation—clinical observations about the mechanism of action in the 1960s and 1970s; animal studies demonstrating its efficacy in the late 1990s; feasibility studies in the early 2000s evaluating its safety and efficacy in OSA patients; and recent and ongoing larger clinical trials to optimize muscle stimulation for OSA treatment.

With one FDA-approved device on the U.S. market (Inspire) and several more devices commercially available in Europe that have FDA trials underway, hypoglossal nerve stimulation is a promising therapeutic option for OSA, particularly in patients who cannot tolerate or comply with CPAP therapy.

Dr. Huntley emphasized the importance of patient selection criteria based on factors such as the severity of OSA and the patient’s body mass index.

“Hypoglossal nerve stimulation is an effective treatment option for obstructive sleep apnea, but it is not for everyone,” he explained. “As we gain experience and the technology is further developed, we are learning the characteristics unique to individual patients that predict success with this form of therapy.”



PHYSICIAN TRACK

KEY TAKEAWAYS



Christine So, PhD

Postdoctoral Fellow, Mental Illness Research, Education, and Clinical Centers at the Corporal Michael J. Crescenz VA Medical Center

Nightmares: Etiology, Mechanisms, and Treatment

Recent studies have suggested that nightmares are underdiagnosed and undertreated, even in sleep medicine centers. Christine So, PhD, underscored how beneficial it can be for sleep professionals to include nightmares in their overall assessment of sleep health.

“Because it is unlikely that patients will report nightmares without provocation, it is important for providers to inquire about nightmares,” said Dr. So, a clinical psychologist and researcher who specializes in behavioral sleep medicine.

In fact, she cited research that highly recommends that every sleep center should include questions about nightmare frequency and distress in their diagnostic procedures.

That’s because some studies have shown there are a considerable number of sleep-disordered patients in need of nightmare counseling. Why is this a clinical problem? Nightmares are commonly experienced and yet their phenomenology is not well understood,” Dr. So explained. “Nightmares cause extreme distress for the patient and are associated with worse mental health outcomes, such as anxiety, depression, and suicidal ideation.”

Nightmares are common in the general population but their prevalence is even greater in certain subpopulations including military veterans, patients with post-traumatic stress disorder (PTSD), and patients with psychiatric conditions. “It is critical to understand how nightmares can be a standalone or comorbid clinical presentation that warrants attention,” Dr. So said.

Typically occurring during REM sleep, nightmares are extremely dysphoric and well-remembered dreams that usually elicit negative emotions and result in awakening. Up to 70% of adult psychiatric patients report recurrent nightmares, and up to 96% of patients with PTSD report experiencing nightmares.

Trauma-related nightmares are characterized by their link to traumatic events and are more severe and frequent compared to idiopathic nightmares. Interestingly, Dr. So also pointed to a 2019 study that indicated a clear association between PTSD, comorbid OSA, and nightmares, in which the authors found an improvement in nightmare frequency with CPAP treatment.

So how should clinicians treat nightmares? “While both psychological and pharmacological treatments exist for nightmares, research has shown their efficacy to be mixed,” Dr. So said. She highlighted the American Academy of Sleep Medicine’s 2018 Position Paper for the Treatment of Nightmare Disorder in Adults as an excellent resource for clinicians. It provides guidance on the use of pharmacologic and nonpharmacologic treatment options—including behavioral therapy, such as imagery rehearsal therapy.

Overall, Dr. So emphasized the complexity of nightmares, the importance of asking about nightmares as part of comprehensive sleep health assessments, and the need for tailored and informed treatment approaches.





MARK YOUR CALENDARS

Please plan to join us at the
13th Annual Philadelphia
Sleep Conference

MARCH 28, 2025

at the Live! Casino and
Hotel Philadelphia.

2024 CONFERENCE RECORDING

Even if you weren't able to attend the 2024 Philadelphia Sleep Conference live, you still have the opportunity to access all of the knowledge that was shared.

Visit www.philadelphiasleepconference.com to purchase the 2024 conference recording (available on May 1) so you can watch all of the presentations, and earn up to 10 BRPT continuing education credits.

CONFERENCE HOSTED BY



Post-conference report prepared by Colleen Donnelly