THE SOMNUS ODYSSEY

Wellness Institute for Sleep & Health Newsletter

Sleep More in 2024

As the new year unfolds, we are prepared to diligently concentrate on uplifting our patients and to help empower sleep.

Prioritizing complete health, including added focus to nutrition, exercise, and a balanced lifestyle, is central to maintaining positive sleep resolutions in 2024!

Featured Topics:

Community Connections

How can we help you dismantle barriers to sleep optimization and better reach patients?

Send your thoughts to **social@wishcares.org**! We'd love your input!

The new year is a pivotal time for motivating patients to prioritize their well-being. As part of this initiative, we encourage individuals to consider resolutions aimed at addressing and managing chronic sleep issues. Our comprehensive approach encompasses various aspects of health, fostering a holistic and sustainable approach to well-being.

We are continuing our efforts to broaden insurance participation to better serve our patient community. We do our best to keep the list regularly updated on our website.

Clinical Updates

Our Cognitive Behavioral Therapy for Insomnia (CBT-I) course is gaining traction! This evidence-based program is proven to be the most effective tool for managing insomnia. Unlike most "cookie cutter" or pre-templated courses, our services are tailored to each patient's unique situation, ensuring a personalized and highly effective approach. We thank you for entrusting us with your patients' care thus far, and we look forward to supporting the collective health goals throughout the year. Make sure to send us your referrals!

Gut-Brain-Sleep Connections

Rhythmicity within the various functional units of the human body is a new growing area of research, and the digestive tract is no exception. A long known zeitgeber, eating food itself can affect the body clock. The complex process of digestion and absorption of nutrients has opened the door to exploration of the hormonal and neural mechanism of chronicity and its impact on metabolism. One point of connection that has impact in sleep, weight, and general wellness is insulin. The "hunger" and "satiety" hormones ghrelin and leptin are impacted by the presence of insulin, directly in relation to the presence of glucose. The complex interplay between these and dopamine and serotonin (of brain or gut origin) impacts regulation of sleep and wake physiology, most prominently through norepinephrine and cortisol. Note that this is a highly complex and non-linear relationship.

To improve and streamline this complex system, the timing of meals is important in sending signals to the body. The metabolic effect of a physiologic stress-state, as we experience upon waking with elevations of norepinephrine and cortisol, can be induced by poor patterns of eating and poor dietary choices. This can result in variable insulin "spikes" and inconsistent energetics. This can promote centrally stimulating "wake" states despite global "sleep" drives. Our recommendations thus focus on minimizing these glucose fluctuations.

Therefore, we encourage guiding our patients to:

Identify optimal mealtimes: Tailor consistent meal timings to individual factors and schedules, aligning with the natural circadian rhythm.

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Prioritize sleep-promoting foods: Encourage low-volume, low-calorie dinner choices rich in lean protein, complex carbohydrates, healthy fats, and fibrous foods to augment melatonin and serotonin release.

Minimize pre-bedtime glucose spikes: Ideally, the last intake of food should precede sleep by 2-3 hours. Where necessary, offer individualized options like fruits, nuts, or yogurt.

Consider incorporating the following patient discussions:

Microbiome and sleep: Exciting connections between gut microbiome diversity and sleep are being explored, and diet & sleep logs are an excellent way to learn and gauge the impact of changes for individuals.

Individualized approach: Each patient's gut-brain connection is unique. Provide tailored dietary and lifestyle recommendations based on their specific needs and sleep challenges.

By delving deeper into the gut-brain connection, we can empower our patients to optimize their sleep and overall well-being. While dietary choices may not directly control sleep, they undoubtedly influence sleep quality and body rhythmicity. Informed decisions about food timing and nutrient composition can positively impact hormone regulation, potentially leading to improved sleep. Let's continue to explore this emerging field collaboratively to offer the best care for those seeking restful nights and healthier lives.

Citations:

Sgro M, Kodila ZN, Brady RD, Reichelt AC, Mychaisuk R, Yamakawa GR. Synchronizing our clocks as we age: the influence of the brain-gut-immune axis on the sleep-wake cycle across the lifespan. Sleep. 2022 Mar 14;45(3):zsab268. doi: 10.1093/sleep/zsab268. PMID: 34757429.

Han M, Yuan S, Zhang J. The interplay between sleep and gut microbiota. Brain Res Bull. 2022 Mar;180:131-146. doi: 10.1016/j.brainresbull.2021.12.016. Epub 2022 Jan 13. PMID: 35032622.

Specialists' Corner

Most 'resolutions' tend to fade within weeks, with an astoundingly low number persisting into the latter half of the year. Knowing this trend, as well as the multifaceted importance of weight management, it behooves us as providers to help encourage, guide, and inform such targeted goals to optimize overall patient wellness and reduce disease burden. At WISH, we like to focus on the benefits from a sleep standpoint, and for the purpose of this discussion, look to take it one step further: the role of intestinal microbiota.

This is a field of study that has garnered a significant amount of interest in recent years – not only as metabolic health, but also in the context of neurally- and hormonally-mediated functions throughout our physiology. The old mantra "You are what you eat" has never been more relevant. What makes this particularly difficult is the exasperating diversity of the gut biome with its trillions of constituents and even more complex interactions with each individual patient. There is very limited evidence-based guidance, so the responsibility of finding the best path forward relies on us. Diaries and logs serve as simple but highly effective tools in correlating dietary choices and sleep effects. Taking a few minutes to contextualize this relationship on the background of a patient's medical history can guide a much more successful path to healing and wellness. From simple concepts such as meal timing and glucose changes to more complex effects of dopamine and serotonin as they impact mental and general wellness, optimizing the relationship with our symbiotic inhabitants can augment our ability to reach target weights, limit inflammatory sequelae, and ultimately, our favorite, improve sleep.

Choking apneas to sleep peace

Effectively managing obstructive sleep apnea (OSA) requires a comprehensive, multidisciplinary strategy, with weight management playing a pivotal role. This article delves into the substantial benefits of weight loss on OSA severity, stresses the importance of collaboration with weight loss specialists, and advocates for the integration of weight management within the overall treatment plan.

Evidence-Based Impact of Weight Loss:

Research highlights the impact of weight loss on OSA, with even modest reductions of 10% body weight from the time of their diagnostic study leading to significant improvements, including:

Reduced Apnea-Hypopnea Index (AHI): Some studies, such as the Wisconsin Sleep Cohort Study, demonstrate substantial AHI reductions, potentially achieving OSA remission in mild-moderate cases.

Improved Sleep Quality: Compared to baseline, weight loss can promote deeper, more restorative sleep (lower Epworth Sleepiness Scale scores), reduction in insomnia (lower Insomnia Severity Index scores), and enhanced daytime energy levels and cognitive function (improved quality of life, and cognitive assessment scores).

Enhanced Health Outcomes: Reduction of inflammatory response, improved cardiovascular health (evidenced by reduction in specified biomarkers), and better mental health management are key downstream benefits.

Collaborative Approach with Weight Loss Specialists:

Incorporating weight loss specialists into the OSA treatment team offers several advantages through:

Personalized Guidance: Tailored dietary and exercise plans cater to individual needs, enhancing adherence and sustainability.

Lifestyle Modification Support: Addressing barriers and facilitating behavior change for greater success.

Motivational Reinforcement: Collaboration between healthcare professionals reinforces the importance of weight loss for overall health and sleep improvement.

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Maintaining Primary Treatment During the Weight Loss Process:

It is crucial to emphasize that weight loss is a gradual process, and primary treatment options such as positive airway pressure (PAP) therapy or oral appliances should continue until follow-up sleep studies can confirm OSA remission (AHI < 5 events/hour). Regular communication with sleep specialists or dentists during the weight loss journey is essential for progress monitoring, therapy adjustments, and addressing concerns.

Benefits of weight management extend beyond the scale:

- Weight loss helps diminish the effect of inflammatory pathways that are triggered by sleep-disruption, thus improving overall health.
- Decreased metabolic demand as a result of weight loss leads to improved sleep quality and depth, thus improving mental well-being.
- Enhanced alertness, focus, and memory are observed with weight loss and proper management of sleep apnea.
- From a public health standpoint, improvements in all of these key components lead to lesser utilization of healthcare resources, higher individual satisfaction, and more globally productive and efficient populations.

By highlighting the multidimensional benefits of weight management and sleep optimization and advocating for collaborative support, we empower all of our providers, colleagues, and their patients to actively enhance their sleep quality and overall health.

Citations:

Peppard PE, Young T, Palta M, Dempsey J, Skatrud J. Longitudinal study of moderate weight change and sleep-disordered breathing. JAMA. 2000 Dec 20;284(23):3015-21. doi: 10.1001/jama.284.23.3015. PMID: 11122588.

Kuna ST, Reboussin DM, Strotmeyer ES, Millman RP, Zammit G, Walkup MP, Wadden TA, Wing RR, Pi-Sunyer FX, Spira AP, Foster GD; Sleep AHEAD Research Subgroup of the Look AHEAD Research Group. Effects of Weight Loss on Obstructive Sleep Apnea Severity. Ten-Year Results of the Sleep AHEAD Study. Am J Respir Crit Care Med. 2021 Jan 15;203(2):221-229. doi: 10.1164/rccm.201912-2511OC. PMID: 32721163; PMCID: PMC7874414.

SyncWell:
Bringing Wellness into the forefront

In recent years, a significant focus on optimizing health has led many to formulate New Year's resolutions targeting wellness-related goals. Unfortunately, as we know, a recurring pattern emerges, with the initial enthusiasm for exercise and healthy eating resolutions often fading within the first three months. This lapse creates a substantial health gap for the remainder of the year, a space in which individuals revert to old habits and erode the momentum initially built.

To address this challenge, we have actively brainstormed strategies to create a cohesive plan that seamlessly aligns with individuals' existing lifestyles, eliminating the need for significant time commitments, gym memberships, or drastic deviations from dietary preferences.

Our solution involves the implementation of "exercise snack" routines that can be easily incorporated anywhere – whether at the office or in the comfort of one's home – throughout the day. We've condensed these routines into simple cards that can be downloaded or screen shots taken for convenient reference. These routines are carefully crafted to complement specific meal plans, highlighting the synergistic relationship between diet and exercise.

Beyond markedly diminishing the duration spent in sedentary positions, research backs the fact that engaging in this type of activity leads to significant advancements in cardiometabolic health. These exercise circuits, ranging from moderate to high intensity, enable patients to meet the standards of physical activity set by the World Health Organization with little disruption of their daily routine.

The key advantage lies in the simplicity - we can enable individuals to consistently integrate healthy lifestyle practices and sustain their commitment beyond the dreaded collapse of an otherwise well-intentioned New Year's resolution.

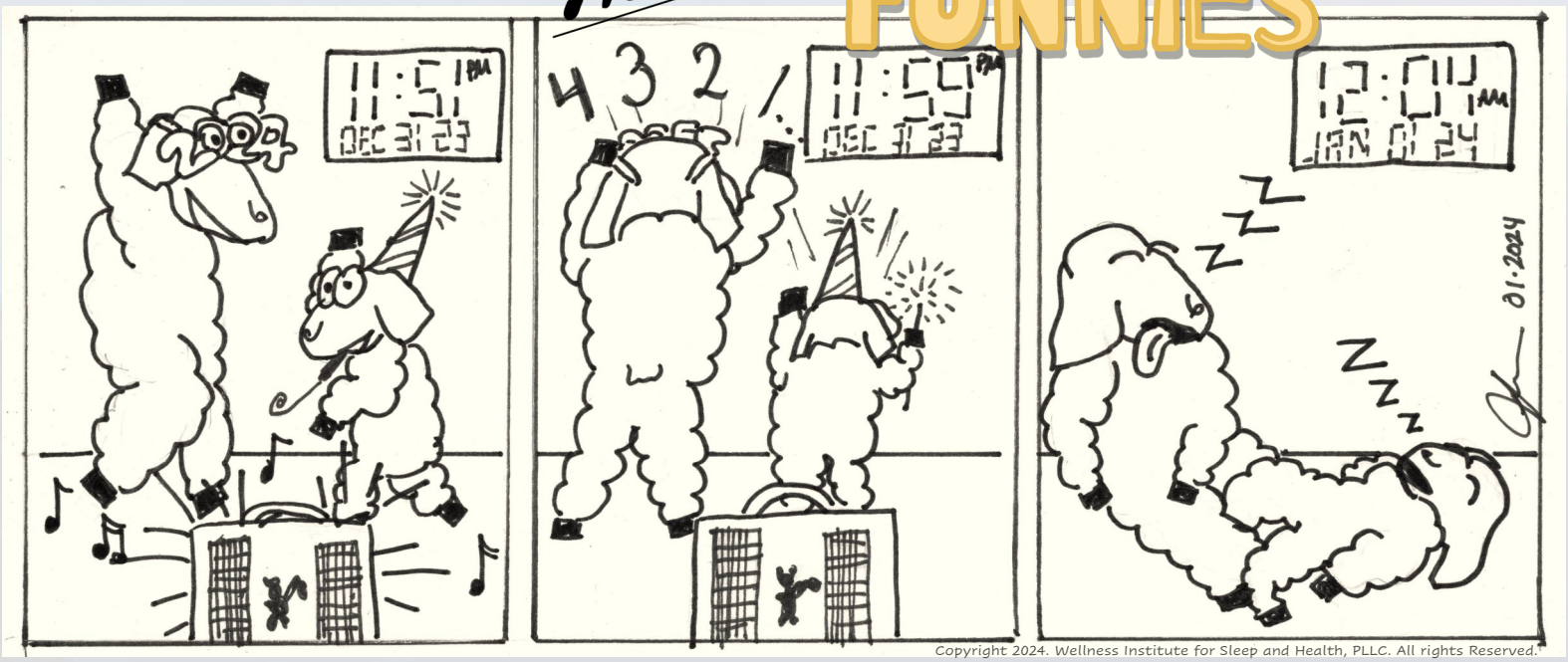
Somnus's February Spotlight

Sorting Sleep

Heart Health Focus

Citations:
Islam, Hashim; Gibala, Martin J.; Little, Jonathan P.. Exercise Snacks: A Novel Strategy to Improve Cardiometabolic Health. Exercise and Sport Sciences Reviews 50(1):p 31-37, January 2022. | DOI: 10.1249/JES.0000000000000275

The Sleep FUNNIES



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