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March/April 2021 | Healthy Sleep Issue



**COVID-19
& Sleep**
What We Know

**Gender
Differences**
in Sleep

**Sleep
Challenges**
in Autism

WORLD
SLEEP
SOCIETY



Healthier Sleep

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Quiz: Do you know the truth about healthy sleep?
Answer: 3 - Multiple studies suggest that the quality of sleep has the greatest impact on daytime functioning and quality of life, not quantity.

COVID-19 & Sleep

What we know.

By Gina Dewink

Three professional perspectives on the pandemic's impact on our sleep—including tips on how to sleep better.

From the Taskforce

Associate Professor Sutapa Mukherjee of Flinders University has been a sleep physician since 2005. In addition to working as a sleep physician at SA Health in Adelaide, Australia, this year she added a new title: Co-Chair of the Guideline Leadership Group of the National COVID-19 Clinical Evidence Taskforce of Australia (covid19evidence.net.au).

AUSTRALIA'S COVID-19 SLEEP RESEARCH

In Dr. Mukherjee's role as President-elect of the Australasian Sleep Association, she has been part of a group monitoring the impact of COVID-19 on sleep in patients and colleagues, as well as following international and national literature as it becomes available.



Dr. Sutapa Mukherjee

"Anecdotally, many of us observed major changes in our own sleep patterns. Definitely routines have changed, particularly during the early stages of lockdown in Australia (March-April) when many people were working from home. This had

“

We later realized the stay-at-home orders and enormous changes to day-to-day lives and routines had a significant impact as well.

”

positive effects on some patients because they could sleep when they pleased rather than being tied down to a work schedule. Also, there was no work commuting time so they could go to bed later and get out of bed later and still be on time for work. This particularly suited the 'night owls' who often struggle to get out of bed in the morning. Overall, people were in bed more," Dr. Mukherjee explains.

Yet as time wore on during the pandemic, Dr. Mukherjee and her colleagues began to notice more patients overall reporting poor sleep, especially in those who were previously good sleepers. "There was definitely more anxiety," Dr. Mukherjee observed. "And watching the news and social media as the pandemic developed led many to

worry, often resulting in increased difficulty falling asleep or staying asleep." Dr. Mukherjee and her colleagues often noted patients reporting more vivid dreams, increased stress, less exercise and sunlight (both of which help to regulate sleep) and more time using electronic devices before bed.

WHAT IS KNOWN ABOUT SLEEP IN PATIENTS WITH COVID-19

Dr. Mukherjee explains that there is some evidence that patients with sleep apnea may have more severe symptoms. "Emerging research suggests that sleep apnea might be a risk factor for more severe disease and COVID-19 Mortality and Hospitalization. "Otherwise, not much is known about those recovering sleep patterns, apart from



some who seem to feel very fatigued and spend more time in bed. At this point, we know very little, and I am sure this will be an active area of research in the future.”

DR. MUKHERJEE'S SLEEP TIPS

- Remember it is normal to feel anxious and overwhelmed with the current situation
- Stick to a set routine each day
- Allow downtime for relaxation and unwinding before sleep
- Avoid screentime before bed
- Stay in contact with others and keep up your social connections even though you may not be able to meet face to face
- Be mindful/meditate
- Exercise and stick to a healthy diet
- Take a short nap if you are very tired, around 20 minutes, but not after 3pm
- Avoid caffeine after midday.

From the Physician

Dr. Hari Wimalleswaran, MBBS, B.Physio, CCPU, FRACP is a Consultant Respiratory and Sleep Medicine Physician at Austin Health, Monash Health, Cabrini Health and Warringal Private Hospital in Victoria, Australia. As of May 2020, he also became the Respiratory Clinical Lead for the management of COVID-19 positive patients and outpatient follow-ups. Since its inception, the group has been reviewing complications



Dr. Hari Wimalleswaran

and long-term outcomes of COVID-19—the first of its kind in Australia. In assessing the patients over time and being up-to-date with emerging and evolving medical literature covering COVID-19, sleep disturbances such as insomnia and non-restorative sleep have become apparent. Dr. Wimalleswaran states, “Sleep disturbances were evident in the SARS epidemic and persisted for up to two years. There is mounting evidence that it has also become a strong signal in the COVID-19 pandemic. Traditional risk factors of poor sleep including inactivity, anxiety and depression have been further intensified during the COVID-19 climate leading to a further decline.” Findings suggest that sleep disorders have been reported in approximately 31% of COVID-19 patients. “In our experience,” Dr. Wimalleswaran begins, “nearly 30% of patients that were evaluated showed signs of insomnia at 8 weeks post-infection. In particular, healthcare workers were especially at higher risk for insomnia. This subgroup is not entirely surprising given the provision of care to patients, fear of being infected and witnessing death firsthand on accounts.”

Dr. Wimalleswaran is quick to note that sleep disturbances such as insomnia are a normal reaction to stressful events, including COVID-19. Especially considering we have all been affected in some way or another. “The confinement indoors and the severe disruption in routine have been big players in sleep disturbance,”

Dr. Wimalleswaran continues. “When we lose certain life ‘prompts’ during the day for the body such as meal times, activities and sleep, the circadian rhythm is prone to disruption. The key is to normalise this as best as possible. I wish for people to take comfort in knowing sleep issues during COVID-19 are an appropriate response by the body.”

From the Psychologist



Dr. Melinda Jackson

Dr. Melinda L. Jackson is Senior lecturer and Psychologist at Turner Institute for Brain and Mental Health, Monash University in Australia. She has been working in the field of sleep for 15 years.

Her team of sleep psychologists were keen to find out how the pandemic is impacting people’s sleep-wake patterns and psychological functioning. They conducted a global survey on sleep and mental health during the early stages of the pandemic (March-April) and have followed people up over the last six months.

CHANGES IN SLEEP

“At first,” Dr. Jackson began, “we thought the psychological impact of the uncertainty and fear of infection would be the main influence on sleep. We later realized the stay-at-home orders and enormous changes to day-to-day lives and routines had a significant impact as well. Our survey aimed to look at whether particular factors—such as resilience, personality, loneliness—may be protective for sleep, or in fact, detrimental.”

COVID-19 continued on page 6

The team discovered a division in how people responded to the COVID-19 situation, in terms of their sleep and wake patterns. Dr. Jackson states, “We found that 73% of respondents met criteria for poor sleep quality based on the Pittsburgh Sleep Quality Index during the March-April period. This is not surprising, since we know that stress is a major precipitant of insomnia, and a global stressful event like a pandemic is bound to bring out sleep problems in some people.” But the team also found that some people reported sleeping better. This may be because people did not have to wake up early to get to school or work, and therefore could go to bed and wake up at a time that suited their own internal body clocks. “Around half of our respondents indicated that their

sleep was in better alignment with their body clock compared to before the pandemic,” Dr. Jackson explains. “This is similar to other reports from Europe and the US. The pandemic has brought about a naturalistic experiment to see what happens when we’re not dictated by what our work or schooling schedules require us to do. These findings suggest that when people are allowed to sleep on their own time, people will potentially get more sleep and sleep on schedule that better aligns with their body clocks.”

SLEEP AFTER A POSITIVE TEST

Dr. Jackson and her team are also aware of the emerging evidence suggesting that those who have been infected with COVID-19 experience anxiety and poor sleep quality, perhaps due to the impact

of isolation and hospitalization. Dr. Jackson notes that one of the symptoms of long haul COVID includes insomnia. “Strong immunity often begins with good sleep. We should not underestimate the importance of good sleep for immunity,” Dr. Jackson concludes.

**Citations available on healthiersleepmag.com.*

Gina Dewink has been working and writing for nonprofit health organizations since 2004. With a degree in communications, her career history includes the American Academy of Neurology and the RLS Foundation.

COVID-19 RESEARCH FINDINGS



A survey of 2,000 American respondents found that they got **less sleep in 2020**, averaging 5.5 hours of sleep per night, compared to 6 hours and 17 minutes in 2019.



More than 50% of the more than 1,000 participants reported experiencing **insomnia during the pandemic**.



An increased number of unusual, **vivid nightmares** have been reported.



Recent studies have suggested that the sleep hormone melatonin **may be beneficial for the treatment of COVID-19**. Melatonin may decrease oxidative stress, inflammation and the immune response, which may be particularly important in patients with OSA in whom these pathways are already activated. This is currently being studied.



A **sleep deprivation survey with 12,000 respondents** across six countries found that in Thailand 50% claim they are definitely sleep deprived, followed by Germany (38%), USA (38%), UK (37%), Italy (19%), and Spain (18%).



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Typical Applications

- > Detection of sleep disorders
- > Chronobiology
- > Circadian rhythm research
- > Paediatric sleep
- > Psychiatry

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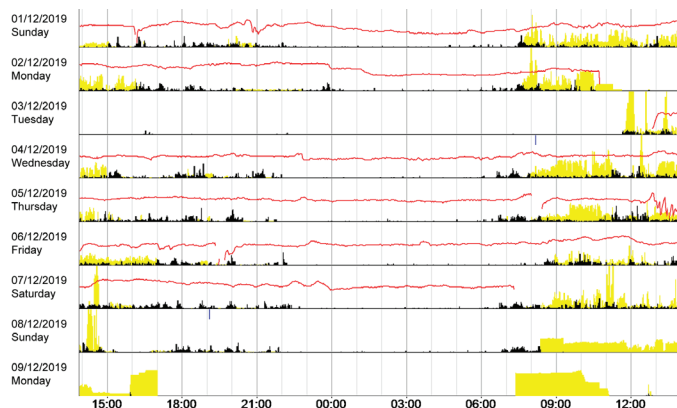
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Sleep Challenges of Autism

One doctor's quest to help families rest.

By Shanti Argue

Before Dr. Beth Ann Malow attained her distinguished roles at Vanderbilt University as the Chief of their Division of Sleep Disorders, as well as the Burry Chair of Cognitive Child Development, she was a neurologist with an interest in sleep medicine. A twist of fate—motherhood—focused her interest toward helping children with autism thrive through better quality sleep.

Dr. Malow's personal experience raising two children with Autism Spectrum Disorder (ASD) introduced her to a community of parent-advocates who were struggling with a myriad of sleep issues. In fact, Dr. Malow says 50-80 percent of parents report sleep-related issues in their children with ASD, from insomnia to daytime sleepiness.

Dr. Malow found that the more disrupted the sleep of the ASD patient, the more often the parents were exhausted and overwhelmed, and struggled in the daily care of their child.

QUESTIONS ABOUT AUTISM

Dr. Malow explains that ASD is a neurological disorder that affects social interactions and communication skills, but these patients can have multiple conditions at the same time. Known as comorbidities, conditions that often appear alongside ASD include epilepsy, GI issues, ADHD, obesity, anxiety and sleep disorders.

One question that still has not been fully answered is whether the sleep issues cause—or are caused by—the comorbidities. For example, is anxiety or digestive distress an instigator of insomnia? Or is insomnia preventing the brain from “resetting” and stirring up anxiety and GI issues? Is epilepsy a consequence of inadequate restorative sleep, or is epilepsy the root cause? Dr. Malow acknowledges that “it is a very exciting time in the field,” as research continues into the complex interconnectedness between neurology and the body.



Dr. Beth Malow

FINDING ANSWERS

The good news, according to Dr. Malow, is that “many sleep disorders are highly treatable,” and often have a domino effect in other areas of concern. For example, Dr. Malow and her colleagues have found success by

treating obstructive sleep apnea (OSA) in children with epilepsy. “Once patients are sleeping better, they often need less seizure medicine, and the medicine seems to work better,” says Dr. Malow, “and they see less daytime sleepiness.” Being more alert throughout the day primes these kids for better learning.

A benefit to treating sleep disorders is that patients get more out of behavioral therapy or other interventions when they show up for these sessions well-rested and more agreeable.

Dr. Malow found that when kids slept better, parents and families slept better. “When parents are more well rested, they can be a better advocate. They have more patience. And they find they can interact with their children more effectively,” asserts Dr. Malow.

INDIVIDUALIZED SOLUTIONS

Just as each patient is unique, there is no one-size-fits-all solution for sleep. Dr. Malow says a sleep specialist can help with any underlying medical disorders, such as OSA. Another helpful resource, Dr. Malow says, is having behavioral specialists who can assist

by identifying daytime habits, changes to bedtime routines, or sensory related disruptions that address very specific concerns and individual situations.

GETTING THE WORD OUT

Not all primary care physicians have the time or expertise to address sleep concerns in their ASD patients, but Dr. Malow says treating sleep disturbances is a “pivotal part of the intervention for autism.” In order to help more parents, Dr. Malow co-authored a book with Dr. Terry Katz called *Solving Sleep Problems in Children with ASD*. Additionally, her team has also created a sleep tool kit that can be downloaded free of charge (vumc.org/sleepinautism).

After years of seeing dramatic improvements in her ASD patients' lives after effective sleep interventions, Dr. Malow is now expanding her research to include other disabilities in children as well as teens and adults in her expanded role as director of the Vanderbilt Kennedy Center Clinical Translational Core. One of the most gratifying aspects of her work is hearing the happy feedback from parents when their child is sleeping better, and the positive impact of that on other areas of their lives.

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Shanti Argue is a freelance writer who loves researching and writing about a variety of topics.



Circadian Rhythms

Can our bodies keep track of time?

By Rosei Skipper, MD

Have you ever wondered why it's so hard to sleep after the clocks change, or why you feel so sluggish on dark winter days? Or why after working an overnight shift or traveling overseas you experienced the difficulty of "resetting" to a new time? Perhaps you've noticed the natural ebb and flow of your appetite during the day—or even noticed that you feel colder at certain times. All of these processes and more are controlled by what are known as circadian rhythms—the natural cycles of our bodies that occur about every 24 hours. When our body isn't in sync with the outside world, things can get out of whack.

IS THERE A CLOCK INSIDE OF US?

Kristen Knutson, PhD is an Associate Professor in the Center for Circadian and Sleep Medicine in the Department of Neurology at Northwestern University. Her research focuses on the associations between sleep, circadian rhythms and chronic diseases. Dr. Knutson explains that each cell in our bodies has a tiny molecular clock that dictates when to do various activities, like release hormones and process energy. These tiny clocks are controlled by one central clock, sometimes known as the conductor, which is located in the hypothalamus area of the brain. When everything

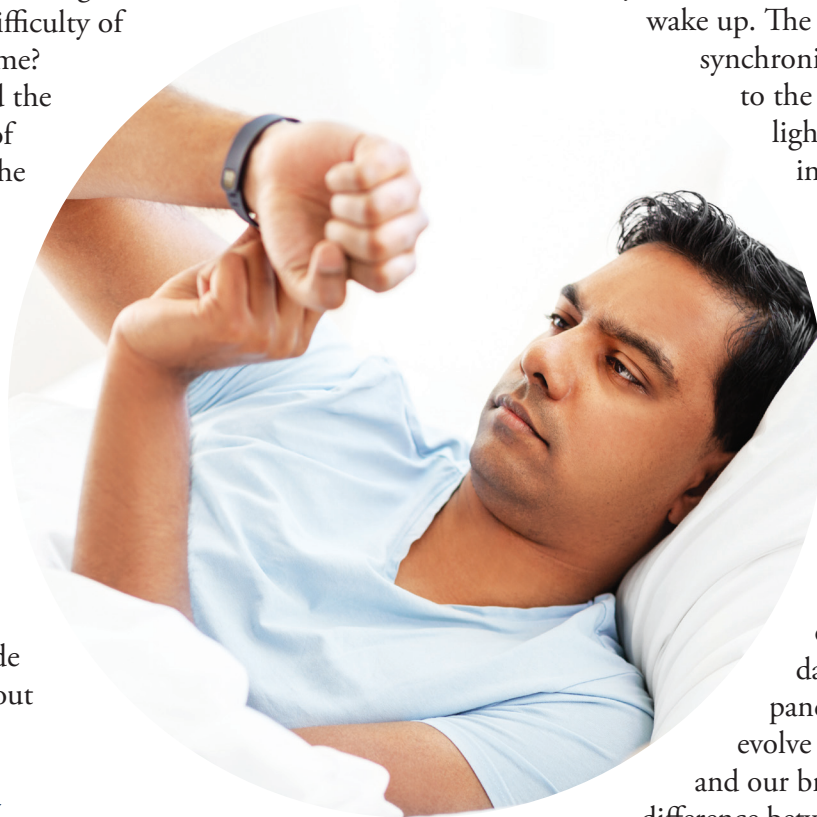
is working well, all of the clocks are synchronized to the same time, and the conductor directs them all, much like a maestro leading an orchestra. Together the system tells us when to eat, sleep, and wake up. The body is constantly synchronizing these inner clocks to the outside world, and light exposure is the most important cue. Dr.

Knutson highlights that "the timing of our clocks can be changed by exposure to light."

MODERN LIFE CAN THROW OFF OUR CLOCKS

There are a lot of challenges to maintaining a normal circadian rhythm these days, especially during a pandemic. Our bodies didn't evolve to live with technology, and our brains can't always tell the difference between daylight and artificial

light. Using a screen at night can confuse our brains by giving us the "daytime" signal when it's actually time for bed. Conversely, not getting enough light during the day can make us feel sluggish and sleepy. With school and work now often occurring from home, the routines of our lives may be very different. Shift workers may particularly have difficulty getting on track, especially if their work hours change frequently. How can we help our bodies feel on schedule, especially now that the nights are long and many of us are working from home? As Dr. Knutson emphasizes, now it's more important than ever to keep your rhythms on track.





Dr. Kristen Knutson

Dr. Knutson's Tips to Keep Your Clock Consistent

1.) Try and maintain the same sleep/wake times each day—even on the weekends. Your body will feel best when you wake up and head to

bed on a regular schedule.

2.) Make sure to get some light in the morning, especially if you've had a tough time waking up. This could mean taking a brisk walk outside, or even just choosing a sunny window to sit by for your morning coffee.

3.) Avoid bright light in the evening—especially if you have trouble falling asleep. You may want to choose a paper book at night, and to make your bedroom as dark as possible. If you must use a screen at night, try turning down the brightness.

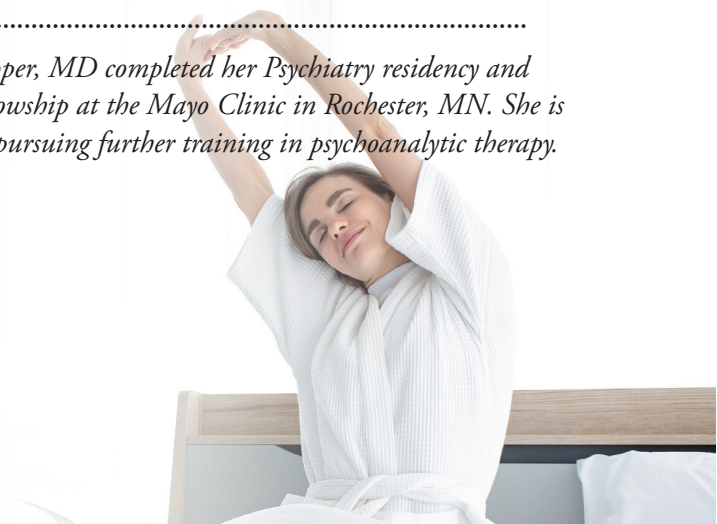
4.) Keep your daily schedule as consistent as possible especially if you are working from home and don't have the structure of an office. In addition to maintaining a routine sleep schedule, make sure to eat at regular intervals throughout the day. If possible, avoid large meals at night, as they can disrupt sleep.

5.) Exercise can help keep your body on track, and it doesn't have to be intense. Something as simple as regular family walks can benefit everyone's mood and health, including your four-legged family members.

6.) Speaking of pets, have you noticed they don't always have the same sleep patterns as humans?

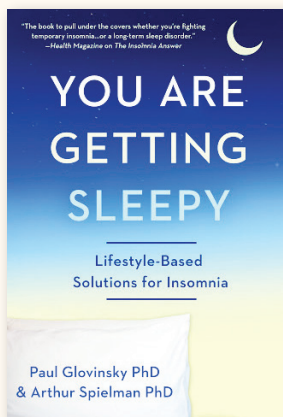
That's because their circadian rhythms are different than ours. So if you find your cat pouncing on your head at 3am... it may be time to banish kitty from the bedroom.

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Rosei Skipper, MD completed her Psychiatry residency and Child fellowship at the Mayo Clinic in Rochester, MN. She is currently pursuing further training in psychoanalytic therapy.



Bedtime Reads

Looking to learn even more? Each issue, we highlight one book about sleep.



Available on Amazon and from other book retailers.

You Are Getting Sleepy: Lifestyle-Based Solutions for Insomnia
by Paul Glovinsky, PhD and Arthur Spielman, PhD

This easy-to-follow guide written by two founding experts in behavioral sleep medicine will help you achieve a good night's rest.

Taking into account challenges that stand in your way to better sleep, Glovinsky and Spielman:

- Discuss changes to daily routines to induce sleepiness at the right time and place.
- Walk you through treatments for insomnia.
- Introduce promising interventions for managing anxiety, depression, an out-of-sync biological clock, dependence on medication and more.



Gender Differences in Sleep



Dr. Michael Grandner

For decades, researchers have reported and recorded differences in sleep for women and men, with more recent studies including transgender and nonbinary individuals. Dr. Michael Grandner of the University of Arizona has been working in the field of sleep medicine and research for about 20 years. He states, “After adjusting for demographics, socioeconomics, health variables, and depression, the rates of many sleep disturbances are more prevalent among women and people from gender minority groups.”

SLEEP FOR WOMEN

Biological factors are major culprits for sleep disturbances for women. Pregnancy often causes sleep fragmentation, gestational sleep apnea, restless legs, and insomnia. Then, there is the risk of postpartum depression and disturbances caused by breastfeeding and caring for infants. Later, women are likely to experience sleep disturbances due to menopause—a transition often characterized by insomnia, hot flashes and sleep fragmentation. This leads to Dr. Grandner’s summary, “Women for all age groups between 25 and 69 years report a prevalent rate of sleep disturbances.”

Reports of daytime tiredness are also more common in women aged 18-59. In fact,” Dr. Grandner continues, “overall, in the general population, women report shorter sleep duration, more sleep symptoms and greater rates of insomnia.”

SLEEP FOR MEN

Men, too, find sleep is frequently disrupted with an infant in the home. But for men, higher rates of obstructive sleep apnea (OSA) may be a more likely reason for poor sleep quality. Additionally, men are more likely to have difficulty seeking and then adhering to sleep apnea treatment, per Dr. Grandner. “Men are more likely to allow OSA complications to potentially become lethal.” Though it remains unclear if it is simply due to more men reporting the issue, men are slightly more likely to be diagnosed with REM behavior disorder, a disorder that causes a person to physically act out dreams, often with violent arm and leg movements during REM sleep. REM behavior disorder has been linked as a precursor to future neurodegenerative disorders.

SLEEP FOR FOR SEXUAL AND GENDER MINORITIES

Several studies suggest that sleep health among LGBT individuals may be an unmet health need. LGBT health research suggests that minority stress contributes to sleep disparities, showing sexual minorities have

a higher prevalence of sleep deprivation compared with straight counterparts, though the sleep deprivation varies by sexual identity and gender. One study examined sleep quality and associated factors among transgender and gender nonbinary (TGNB) individuals. Of the group, participants suggested that mental health issues and gender identity were most likely to cause difficulty falling asleep. Additionally, research has led to interesting questions regarding obstructive sleep apnea (OSA). When studying the effects of transgender hormone therapy, researchers noted that some transgender males (assigned female at birth) developed OSA following initiation of male sex hormones.

THE BRIGHT SIDE

Though some of these outcomes may sound discouraging, the key takeaway should be that all of these sleep disturbances are treatable. A person does not have to accept the outcome and live without healthy sleep. There will always be seasons of life, such as that with an infant, where there are few ways around the lack of sleep. But for those living with insomnia, there is Cognitive Behavioral Therapy for Insomnia (CBT-I). For menopausal sleep disturbances or REM behavior disorder, there are behavioral and pharmaceutical treatments, and for sleep apnea, there are a myriad of treatments ranging from facial exercises to apnea masks to surgery.

Dr. Grandner finishes by adding, “Sleep in most humans represents a universal biological need, which occupies up to a third of the day. Improving sleep has an impact on general health, cardiovascular health, metabolic health, mental health, immunologic health, human performance, cancer, pain and mortality. My hope is that by knowing what our sleep disturbances are and how to treat them, we can all become healthier.”

Sleep Changes as We Age

A Q&A with Dr. Catherine McCall

By Wendi Kitsteiner



Catherine McCall, MD is a sleep medicine physician and psychiatrist working at the Seattle VA. She is also the Acting Assistant Professor in the Department of Psychiatry and Behavior Sciences at the University of Washington. Dr. McCall was interviewed about the important questions surrounding how our age relates to our sleep.

Q: Is it normal for sleep to change as we age?

Yes. As we age, we tend to spend less time in deep non-REM sleep (also called slow-wave sleep), and we may get sleepy earlier in the day. Sleep in older adults may be more fragmented due to a variety of issues, including sleep disorders, medical disorders and medication effects. People experiencing menopause also frequently have sleep problems.

Q: Are sleep complaints common in older adults?

Many older adults do not complain of difficulties with sleep or excessive sleepiness. So when they do, it's important to evaluate these problems and treat them appropriately. Of course, I am a sleep physician and many of the patients who come to my clinic have a sleep disorder. But many older adults do not

report or perhaps realize how inconsistent their sleep patterns are.



Dr. Catherine McCall

Q: Are sleep disorders more common as we age?

Yes, many of the sleep disorders that afflict adults are more common as we age, including obstructive sleep apnea and insomnia. These

disorders cannot only cause poor quality sleep and daytime sleepiness, but are also associated with other medical problems, neurological disorders and mental health issues.

Q: What are notable sleep-related discoveries surrounding sleep and aging?

One of the most important sleep-related discoveries in recent years is the existence of a process by which metabolic waste products and proteins are washed out of our brain tissue. This process has been called the “glial lymphatic” or “glymphatic” system, and it is most active when we are in deep sleep. Think of it as night janitors coming in to clean up the brain for the next busy day. Researchers have begun to learn that even short-term sleep disruption can interrupt this process and lead to a build-up of proteins in the brain. We are still learning about this, but there is some evidence that untreated sleep disorders such as obstructive sleep apnea may be associated with the later development of dementia, including Alzheimer’s disease.

Q: Is chronic insomnia in older adults normal?

Yes, one major problem that older adults tend to experience is chronic insomnia, which is the difficulty getting to sleep or staying asleep. Having short-term difficulty sleeping is normal, especially in stressful times. For some people, however, this develops into a long-term problem. Often the individual will report lying awake in bed, with racing thoughts and significant anxiety about lost sleep.

Q: What medications are available for insomnia?

In short, medication is not the first line of treatment for insomnia. When insomnia becomes a persistent problem, people will often request a medication from their clinical provider. This becomes more problematic in older adults who are more prone to having side effects from hypnotic medications, including serious risks of falls and excessive sleepiness the next day. People with insomnia may also take over-the-counter supplements such as Benadryl or Tylenol PM. These supplements can help people fall asleep, but can have serious short-term and long-term side effects in older adults such as urinary retention, constipation, dryness, confusion, restless legs and adverse effects on cognition.

Q: What is the best way to treat insomnia?

The gold-standard treatment for insomnia is something called CBT-I “cognitive-behavioral therapy for insomnia,” and it has few to no side effects. It is considered more effective than a medication, especially in the long term, and in older adults. Unfortunately, many providers do not have easy access to providers who can do this type of treatment.



Q: How does CBT-I work?

CBT-I is a therapy that employs several different techniques to address the root causes of insomnia. Chronic insomnia occurs when individuals develop a physiologic stress response called “hyperarousal”

that overwhelms their perception of sleepiness. This hyperarousal response often becomes a 24-hour problem that prevents them from sleeping at night or during the day. People with insomnia also form a mental habit of being awake in bed, often with a mind that is actively worrying. CBT-I is designed to reverse these processes, changing bad habits into healthy ones. It helps realign the circadian drive by prescribing regular sleep and wake times, and helps increase “sleep pressure” (the sleepiness that increases the longer you are awake) by avoiding naps and caffeine use later in the day. People in CBT-I keep daily sleep diaries that show approximately when they are in bed and when they are asleep, which helps guide the provider to come up with a “sleep prescription.” Variants of CBT-I may last anywhere from 4 to 12 weeks, can be delivered

individually or in groups, and has been shown to work well via telemedicine. One positive thing that may come out of the pandemic is the ability to connect to a healthcare provider some distance away via video- or telephone-based care, which may eventually increase the availability of this therapy. I recommend patients ask their healthcare provider about referral possibilities for CBT-I treatment.

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Wendi Kitsteiner is a former high school English and Journalism teacher who has worked as a writer/editor for the RLS Foundation and as an editorial assistant for a cardiovascular researcher at Mayo Clinic. She is currently homeschooling her four children on a farm in East Tennessee.



Right Now in Sleep Science

Recent research ties sleep deprivation to recurrent nightmares in adolescents aged 10-20. Researchers in China surveyed 19,229 students to reveal that recurrent nightmares occurred more often in those who habitually slept less than eight hours per night. The study found no significant association between sleepwalking and sleep deprivation. Interestingly, sleeping less than eight hours only on weekends lessened or eliminated the nightmares in subjects aged 14–17 and/or among the female subjects.

Sleep Medicine. December 2020.

doi.org/10.1016/j.sleep.2020.09.016





Acting Out Your Dreams?

It could be REM sleep behavior disorder...

By Shanti Argue

Thrashing against imaginary intruders? Calling out while dreaming? Sometimes these nocturnal outbursts bother a bedmate more than the wild sleeper. However, even if you sleep alone, it might be worth asking your doctor about.

WHEN IT BECOMES A PROBLEM

Neurologist Erik St. Louis, MD, MS, explains that patients with REM sleep behavior disorder (RBD) tend to act out their dreams by talking, waving their arms or even kicking their legs. Dr. St. Louis says these dreams are often violent, causing the sleeper to behave aggressively—even though they are asleep—and they can accidentally hurt themselves or the person who sleeps beside them.

Patients are frequently unaware of the symptoms unless they fall out of bed or wake up with bruises. Dr. St. Louis says sometimes these injuries can be significant, but most often the outbursts are only noticeable to the bedmate. In fact, it is frequently a spouse who is sick of being woken up who encourages the patient to talk to a doctor about the occurrences.

Dr. St. Louis is quick to point out that many people talk in their sleep and do not have RBD. He explains that there are other sleep problems, or parasomnias, that can look similar. Sleepwalking and night terrors are among a category of Non-REM (NREM) sleep disorders that are distinct from RBD.



Dr. Erik St. Louis

ACTION VS. PARALYSIS

Each night our brains cycle through phases of REM and NREM sleep. REM stands for Rapid Eye Movement, and this is the stage where most dreaming happens. According to St. Louis, during REM, “you are normally paralyzed—

clinically known as atonia—so you don’t act out your dreams. It’s our brain’s way of protecting the body from harm.”

At the Mayo Clinic, where Dr. St. Louis is the head of the Division of Sleep Neurology, patients spend a night connected to devices that measure brain waves as well as body movements, known as polysomnography (PSG) to determine specifics of sleep disturbances. During these sleep studies, doctors can distinguish between RBD, which happens only during the REM stage when your body should be temporarily paralyzed, and other NREM movements, which might be a benign occurrence while transitioning between sleep stages or a different parasomnia. If a patient acts out a dream during the REM cycle, sleep specialists will begin recording information as it pertains to an RBD diagnosis.

IS RBD “BAD”?

One interesting observation Dr. St. Louis makes is that more talking and action behavior doesn’t necessarily mean “worse” sleep. He explains, “There is, surprisingly, not much practical consequence” of RBD. Patients often don’t exhibit signs of REM deprivation. This is an area where more studies may take place. If the patient is acting out a fight scene, for example, why isn’t REM deprivation present? Often because the REM cycle remains uninterrupted in the brain. But how and why could that be the case when other times, the same individual could be easily awakened by a quiet noise? And so it is often the aim to protect the bedmate and the sleeper from injuries caused while asleep, rather than strengthen the quality of sleep. For now, Dr. St. Louis says the main goal of treatment is management of symptoms to prevent injury, as well as protecting the sleep of the bed partner. As bed partners often have to sleep separately, treating RBD can also bring them back together.

Dr. St. Louis cautions that RBD can be “an early indicator that a patient is at high risk of developing a neurodegenerative disease” such as Parkinson’s or dementia, and further investigation can lead to earlier diagnosis. Ultimately, once neuroprotective therapeutics are developed, St. Louis is encouraged that RBD could be an early indicator for treatment to prevent additional damage.

While RBD is not in and of itself harmful to sleep, the actions can result in injury to the sleeper or the bedmate. Treatment is available to minimize the frequency and severity of occurrences and to prevent injury. Additionally, if a patient is over 50, if the behavior is new, or if a new prescription was started around the time symptoms began, Dr. St. Louis recommends talking to a doctor to rule out further concerns as new research has shown a potential connection between anti-depressants and instances of RBD.

.....
Shanti Argue is a freelance writer who loves researching and writing about a variety of topics.



MISSION

The fundamental mission of the World Sleep Society is to advance sleep health worldwide. World Sleep Society will fulfill this mission by promoting and encouraging education, research and patient care throughout the World, particularly in those parts of the world where the practice of sleep medicine is less developed.

GOAL & PURPOSE

The goal and purpose of World Sleep Society is to advance knowledge about sleep, circadian rhythms, sleep health, and sleep disorders worldwide, especially in those parts of the world where this knowledge has not advanced sufficiently

OPERATING PROGRAMS

World Sleep Society developed the following programs that consist of promoting sleep education, awareness, and member services and include World Sleep Congress and World Sleep Day.



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IN PERSON MEETING 2022



IN PERSON MEETING 2023

ASSOCIATE SOCIETY MEMBERS

In an effort to increase global awareness of sleep issues, World Sleep Society has formed a relationship with the following national sleep societies or regional federations.

FOUNDING MEMBERS

- Asian Sleep Research Society
- Australasian Sleep Association
- Canadian Sleep Society
- European Sleep Research Society
- Federation of Latin American Sleep Societies
- Sleep Research Society

MEMBERS SINCE 2015

- Taiwan Society of Sleep Medicine
- Czech Sleep Research and Sleep Medicine Society
- German Sleep Society
- Russian Society of Somnologists
- Serbian Sleep Society
- Turkish Sleep Medicine Society
- British Sleep Society
- French Society for Sleep Research and Sleep Medicine
- Finnish Sleep Research Society

MEMBERS SINCE 2016

- Israel Sleep Society
- Peruvian Association of Sleep Medicine
- Romanian Association for Pediatric Sleep Disorders
- Sleep and Wakefulness Medicine Moroccan Federation
- Bulgarian Association of Obstructive Sleep Apnea & Snoring
- Indian Society for Sleep Research

MEMBERS SINCE 2017

- Asian Society of Sleep Medicine
- Japanese Society of Sleep Research
- South East Asian Academy of Sleep Medicine
- Australia and New Zealand Sleep Science Association
- Integrated Sleep Medicine Society Japan
- International Restless Legs Syndrome Study Group

MEMBERS SINCE 2018

- Georgian Sleep Research and Sleep Medicine Society
- International Pediatric Sleep Association
- Indian Association of Surgeons for Sleep Apnoea
- Austrian Sleep Research Association
- Brazilian Sleep Society
- European Academy of Dental Sleep Medicine
- Hong Kong Society of Sleep Medicine

MEMBERS SINCE 2019

- ASEAN Sleep Federation
- European Restless Legs Syndrome
- Minnesota Sleep Society
- American Academy of Sleep Medicine
- Chinese Sleep Research Society
- CMDASM -Chinese Medical Doctor Association sleep medicine Specialized Committee

MEMBERS SINCE 2020

- Portuguese Sleep Association
- Indian Sleep Disorders Association
- Italian Association of Sleep Medicine

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Sleep Deprivation & Loneliness

Sleep loss is a significant contributing factor to the public health crisis of loneliness.

By Gina Dewink

Perhaps you've noticed in your own life that when you sleep less, you are less likely to call up a friend or go out to a social gathering. But would it surprise you to know that this loneliness caused by a lack of sleep is contagious? A group of researchers at UC Berkeley's Center for Human Sleep Science directed by Professor Matthew Walker found just that. Dr. Eti Ben-Simon explains, "We were initially interested to know if people were less inclined to interact with others if they did not sleep. So, our first question was more focused on becoming socially withdrawn following sleep deprivation. We soon realized that both loneliness and social withdrawal pose major

risks to health and are linked to worse sleep." With the knowledge that lack of sleep can cause feelings of loneliness, the group studied further, using functional MRI and electrical brain recordings to take a closer look at neural processes that trigger lower socioemotional functioning following lack of sleep, as well as how to restore these processes back to regular levels after healthy sleep.

"Our discoveries demonstrate that sleep loss acts as a social repellent, in which both sides of the social interaction turn away from each other," Dr. Ben-Simon states. "In an analysis of more than 1,350 research participants, we observed this effect across behavioral, brain and societal levels." This research

identified several new ideas.

1.) Less sleep leads to less social interaction. "Sleep loss—both total deprivation and moderate night-to-night reductions—leads individuals to become more antisocial as it enforces the feeling to have distance from others.

2.) This sleep-loss effect includes over- and under-performing in parts of the brain. The neural processes involved in this antisocial sleep-loss effect include hypersensitivity in the brain regions that warn of incoming social contact (also known as the "near space network"). At the same time, the brain regions that normally encourage social engagement and understanding of another's intent

(known as the “theory of mind network”) are impaired.

3.) Strangers are more likely to mistake the sleep-deprived as lonely. Of real societal importance, independent judges with no prior knowledge of sleep deprivation’s brain connection view sleep-deprived participants as being significantly lonelier. When those same participants are well-rested, they are perceived as less lonely.

4.) Strangers do not want to connect with the sleep-deprived.

When the independent judges were asked if they would like to connect with the study participants in either a social way or a collaboration, they were less likely to when the participant was sleep-deprived. “This demonstrates that the state of sleep loss is a powerful social repellent,” Dr. Ben-Simon concludes.

5.) Loneliness caused by a lack of sleep is contagious. Finally, the group of researchers made the key discovery that the antisocial impact of sleep deprivation is transmissible. When the independent judges came in contact with a sleep-deprived participant, the judge reported feeling lonelier as a result. This strange finding was true even if the judge spent as little as 60 seconds interacting with the participant. Dr. Ben-Simon says, “I have been studying sleep for about a decade now and I was surprised to find evidence that loneliness caused by a lack of sleep is contagious.”

SLEEP, SOCIAL INTERACTION & SHELTERING IN PLACE

The pandemic has changed how we socially interact with others.



Dr. Eti Ben-Simon

It has also reduced the likelihood of getting good quality, refreshing sleep for many people. Given that poor sleep can trigger feelings of loneliness and vice versa, it is especially important to protect our sleep during this time. “We need to invest the time to socially connect with others even if we cannot physically be with them” Dr. Ben-Simon suggests. “One advice that can help in terms of protecting sleep is to try and keep the same sleep schedule even if we have a more flexible routine these days. Going to sleep and waking up at roughly the same time every day (including weekends) is a great way to ensure we get all the sleep that we need every single night.”

Sleep can be viewed as something that takes us away from social

activity, such as turning down a social gathering in order to get the sleep we need. Dr. Ben-Simon concludes by saying, “We human beings were not designed to be alone. Sleep is a glue that, biologically and psychologically, glues us together as a species. Sleep reconnects us with our social circle; with our friends, colleagues, partners and even with strangers.”

Etia Ben-Simon, PhD is a Postdoctoral Fellow in the Center for Human Sleep Science at the University of California Berkeley. She has been working in the field of sleep medicine and research for over ten years. Her fascination with sleep started as a child when she was amazed at how a good night of sleep could make everything feel magically better the next day.

Gina Dewink is a published freelance writer and author acting as Editor of Healthier Sleep Magazine.





Sleep in the Spotlight

March offers global opportunities to celebrate sleep.

With the realization that sleep improves almost every facet of life, you may want to share this important message with family and friends. How can you? The best way is by joining in an awareness event already taking place. This March, many opportunities are available for the general public to join in and spread the message that sleep is one of the pillars of health and should be a top priority.

WORLD SLEEP DAY® **FRIDAY, MARCH 19, 2021**

Created and hosted by World Sleep Society, World Sleep Day was designed to raise awareness of sleep as a human privilege that is often compromised by the habits of modern life. World Sleep Day is an annual event, intended to be a celebration of sleep and a call to action on important issues related to sleep, including medicine, education, social aspects and driving. It is organized by the World Sleep Day Committee and aims to lessen the burden of sleep problems on society through better prevention and management of sleep disorders. In its 14th year, 88 countries have participated in the awareness day by hosting events and educational activities around the globe. #WorldSleepDay has been a top trend on Twitter for several years running. Send out your messages on March 19, 2021.

• **SLEEP AWARENESS WEEK®** • **MARCH 14-20, 2021**

• The National Sleep Foundation holds its annual
• Sleep Awareness Week on March 14-20, 2021. The
• annual event celebrates sleep health and encourages
• the public to prioritize sleep to improve their overall
• health and well-being.

• **NATIONAL NAPPING DAY** • **MARCH 15, 2021**

• This unofficial day has a strong presence online and
• in the media. This unofficial holiday tends to occur
• the Monday after Daylight Savings Time begins
• prepare for the adjustment of a new sleep schedule
• with a nap.

• **DAY4NAPS** • **MARCH 20, 2021**

• A global narcolepsy awareness day exists to spread
• the word about narcolepsy awareness projects and
• how you can help. In conjunction with World Sleep
• Day, Day4NAPs dedicated the following day to
• raise specific awareness about narcolepsy, a day for
• narcolepsy awareness projects, a Day4NAPs.

Select one—or several—of these awareness days to share important messages on social media, host an event or participate/host an online activity. These dates will shift in 2022, as well as the ability to again host in-person events to celebrate the importance of sleep.

PATIENT ORGANIZATION HIGHLIGHT

Day for Narcolepsy Awareness Projects (Day4NAPs)

DAY4NAPS is a digital database for narcolepsy awareness events occurring on a global scale. Mark Patterson, MD, PhD, President of the organization, adds, “We also provide links to international narcolepsy and sleep organizations, serving to act as a one-stop aid for those seeking information on narcolepsy.”

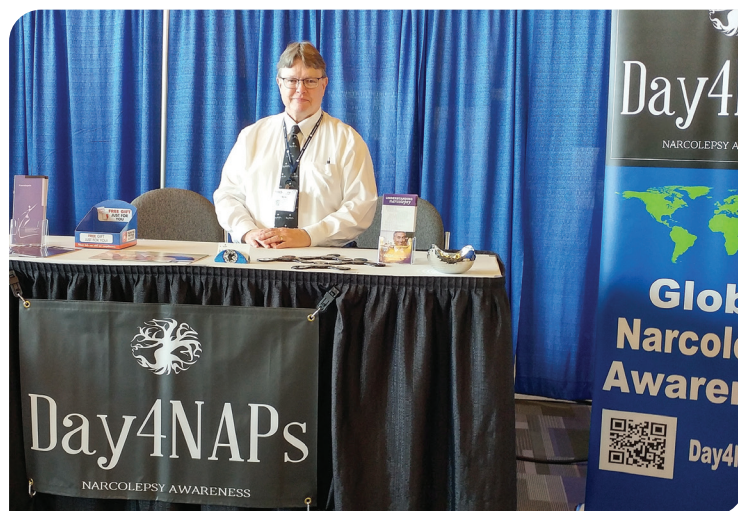
Having been involved with narcolepsy advocacy organizations for over 15 years, Dr. Patterson saw a need for a non-partisan source of information for patients, their supporters and healthcare providers. “Each of the numerous narcolepsy organizations do a superb job of promoting their efforts,” Dr. Patterson opines, “but often function parallel to other groups. I sought to cross barriers and offer support to all organizations in promoting their activities and services to the entire narcolepsy community.”

LEARNING ABOUT NARCOLEPSY

Day4NAPs offers information and support for those newly diagnosed through long-term patients living with narcolepsy. With Dr. Patterson’s experience as a practicing general pediatrician, a former biochemical researcher and the family member of a person with narcolepsy, he aims for the organization to “cull through globally-sourced information and events.” Says Dr. Patterson, “I use blogs to provide patients with cutting-edge results of new research and medications which may lead to an improvement in their quality of life.”

After the diagnosis of narcolepsy with cataplexy in a close family member in 2004, Dr. Patterson searched the internet for appropriate and timely information

about the condition. “Searching for those terms now yields over a million results; screening through these results can be both frustrating and overwhelming,” Dr. Patterson states. “Day4NAPs is now aiming to be the trusted, global source for information.”



Dr. Mark Patterson

AWARENESS ACTIVITIES

Dr. Patterson has been a follower of World Sleep Day in March for many years and timed Day4NAPs to occur on the Saturday following the awareness day. Day4NAPs has been involved in several awareness projects, including having an entry in the local St. Patrick's Day parade,

having a "Narcolepsy Awareness Day" declared on both the city and state levels, and giving local and international presentations.

Dr. Patterson concludes by adding, “By broadening the scope of my narcolepsy information, I have been greatly impressed by the quantity and quality of awareness efforts occurring on a global basis. Patients with narcolepsy deal with similar daily struggles regardless of their location—as do the healthcare providers trying to treat them. This realization has helped to solidify my goal of reaching out to everyone involved and attempts to ease those struggles.”

—day4naps.org



Day4NAPs

NARCOLEPSY AWARENESS

What You Should Know About Wearables

Smart apps and devices can track your sleep, but accuracy matters.

By Sean P.A. Drummond, PhD

Two things motivated me to become interested in wearables. First, I wanted to find a more economical and flexible alternative to research-grade actigraphs (the current standard for assessing sleep vs. wake outside the lab). Second, I saw the explosion of wearables on the market, without the manufacturers providing convincing evidence (or sometimes, any evidence at all) that they accurately measured what they claimed to measure. I think consumers need to know what these devices can and cannot do, or else we risk harming sleep health, rather than helping it.

WHAT I WISH CONSUMERS KNEW

Very few wearables have been independently validated. Independent researchers with no affiliation to the manufacturer should test the device and determine how accurately it measures what it claims to measure. Some companies are very good at promoting their devices and claiming they are "scientifically proven." However, consumers should demand to see the independent studies, not just those conducted by or with the employees of the company itself.



Dr. Sean P.A. Drummond

To be frank, it is my opinion that no consumer sleep tracking device on the market today can identify sleep stages (light sleep, deep sleep, REM sleep) well enough to be useful for the consumer.

WHAT I THINK COMES NEXT

Sleep is being increasingly recognized as the third pillar of good health (along with diet and exercise). We know poor sleep is an independent risk factor for a host of mental and physical health problems. Because of this positive understanding, more and more consumers are interested in tracking their sleep. There is nothing wrong with the decision to track one's sleep; I just want consumers to know results may not be accurate.

Another growing pain as processes are catching up to technology, is that right now there is no accepted way for a healthcare provider to utilize all the data wearables can provide to improve diagnosis or treatment. The sleep medicine field is working hard to determine the best, most helpful way to incorporate wearables into sleep health recommendations. Part of that process is determining which wearables work as they claim, part is figuring out how to translate the information provided into actionable information for the average consumer, and part involves determining how to add wearable data into medical record information to improve healthcare practice. But this is a work in progress.

Wearables have the potential to dramatically elevate awareness of sleep health and to improve sleep health at the community and population levels. Researchers, manufacturers and consumers can work together to accelerate the pace of that discovery to the benefit of everyone. I look forward to a time when I can recommend the use of sleep tracking devices with confidence. I believe that day will be soon.

.....
Professor Sean P.A. Drummond of the Turner Institute for Brain and Mental Health at Monash University has been working and studying in the field of sleep for 30 years.

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- BETTER SLEEP
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-  **The BuZZZ about Sleep**
-  **Ask the Sleep Doc**
-  **Bedtime Reads**
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-  For questions, contact healthiersleep@worldsleepsociety.org.

WORLD
SLEEP
SOCIETY

Sleep Medicine is an Exciting and Growing Field

By Alan Pack, MBChB, PhD



Dr. Alan Pack

I have been in the field of sleep research since 1981. It has been a wonderful journey. In the early years, there was limited acceptance of the importance of sleep and the relevance of sleep disorders. Over the years, this has slowly changed as a

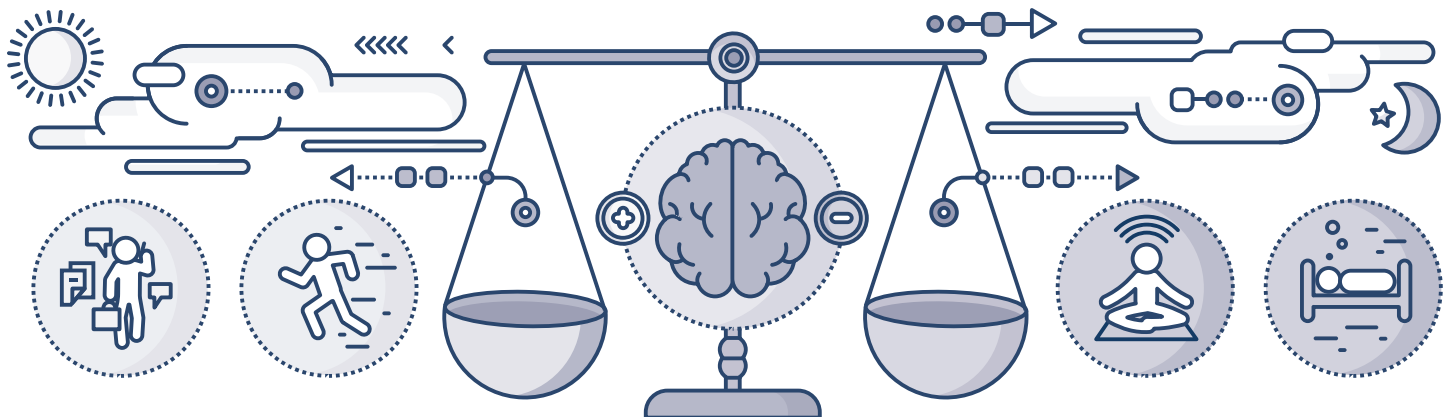
result of the outstanding research that has been done and the commitment of many individuals worldwide. Development of fields can be divided into phases; the first phase being the pioneer phase. For sleep research, this was in the 1970s and 1980s. This is followed by the phase of rapid growth. We are in the rapid growth phase, and there are enormous opportunities.

It is not just the increased recognition of the importance of adequate sleep and its disorders that makes this a great time to get involved in this exciting field. There are also effective treatments for common sleep disorders. Diagnostic studies are evolving that make the diagnosis more cost-effective and hence more widely available internationally. Sleep and its disorders are very applicable to new research approaches that support personalization of diagnosis and management. This includes the use of biomarkers,

genetics, use of big data, and application of wearables to observe and track the sleep of individuals. Large-scale genetic studies, based on resources such as the UK Biobank, are proving productive to identifying gene variants associated with sleep duration, insomnia and chronotype (the tendency for an individual to sleep at a particular time during a 24-hour period). In basic research, we are now transforming our understanding of the neuronal circuits regulating sleep. In many respects, investigators in sleep research have been in the lead in applying these approaches.

Hence, it is a time of great opportunity. Programs of World Sleep Society and other universities and societies are bringing opportunities to trainees in many countries—and we are already seeing the field of sleep medicine and research rapidly developing in all parts of the globe. Thus, my message is simple—get involved. If you are entering school or selecting a path, consider choosing sleep. This is fun and you can make a major difference.

.....
Allan I. Pack, MBChB, PhD is the John Mielot Professor of Medicine in the Department of Medicine/Division of Sleep Medicine at University of Pennsylvania Perelman School of Medicine in Philadelphia, Pennsylvania.



<p>MAY/JUNE 2021 SLEEP DISORDERS</p> <p><i>Ads Due: 2/25/21</i></p> <ul style="list-style-type: none"> • Night Terrors • Circadian Rhythm Sleep Disorders • Sleepwalking • Nightmare disorder • Sleep Related Hypoventilation/Hypoxemia 	<p>JULY/AUGUST 2021 INSOMNIA</p> <p><i>Ads Due: 4/28/21</i></p> <ul style="list-style-type: none"> • Insomnia • Pediatric sleep disorders • Chronic lack of sleep/effects of sleep deprivation • Anxiety • Insomnia & mental health 	<p>SEPTEMBER/OCTOBER 2021 HYPERMOMNIA & NARCOLEPSY</p> <p><i>Ads Due: 6/30/21</i></p> <ul style="list-style-type: none"> • Narcolepsy • Hypersomnia • Parasomnias • Depression • Non 24 Sleep Wake Disorder
<p>NOVEMBER/DECEMBER 2021 RLS</p> <p><i>Ads Due: 8/26/21</i></p> <ul style="list-style-type: none"> • Restless Legs Syndrome • Periodic limb movement disorder • Alzheimer's disease • Parkinson's disease • Sleep & sports performance & injury 	<p>JANUARY/FEBRUARY 2022 SNORING & OSA</p> <p><i>Ads Due: 10/25/21</i></p> <ul style="list-style-type: none"> • Sleep Breathing Disorder • Bruxism or teeth grinding • Sleep & Memory • CPAP • Sleep & women (pregnancy to menopause) 	<p>MARCH/APRIL 2022 BETTER SLEEP</p> <p><i>Ads Due: 12/22/21</i></p> <ul style="list-style-type: none"> • Sleep disorder treatments • Expert recommendations • World Sleep Day • Sleep & health outcomes • Mental health & sleep

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Stop the Clock

The case for eliminating seasonal time changes.

By Kelly Carden, MD

In most of the United States, daylight saving time starts each year on the second Sunday in March when we set clocks ahead one hour. A growing body of evidence shows that this time change has negative consequences on health and safety. While there is increased support to end the spring and fall time changes, there is some disagreement about whether daylight saving time or standard time is best.

It is the position of the American Academy of Sleep Medicine that the U.S. should eliminate seasonal time changes in favor of a national, fixed, year-round time. Current evidence best supports the adoption of year-round standard time. This position is supported by more than 20 health, safety, and community organizations, including the National Safety Council, National Parent Teacher Association and World Sleep Society.

HOW TIME CHANGES IMPACT OUR SLEEP

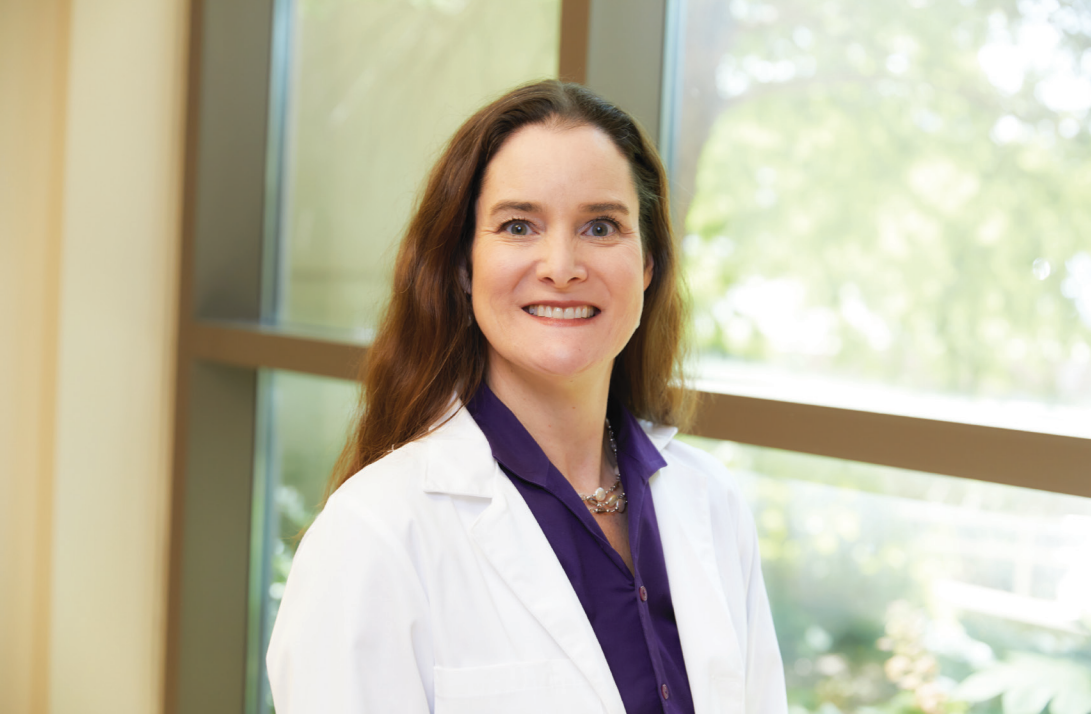
In the human brain there is a master clock that regulates the timing of hormone production and other biological functions. The timing of this clock follows a “circadian” rhythm of about 24 hours. Light is one of the strongest signals that helps synchronize the body clock. Bright morning sunlight indicates that it is time for your body to increase production of hormones that promote alertness. In contrast, darkness at night indicates that it is time for your body to produce more melatonin, which promotes sleepiness.

“Springing forward” to daylight saving time causes a sudden and lasting disruption to this daily

rhythm, as daylight persists later in the evening. Increased evening daylight can make it harder for you to fall asleep at night. If you still must wake up at a fixed time for work or school, then you are likely to experience an element of sleep loss during daylight saving time.

Currently, daylight saving time ends in most of the United States on the first Sunday in November. However, if daylight saving time were to become permanent, then the long, dark mornings of winter would be even longer. Permanent daylight saving time would push sunrise later, making it even harder to wake up in the morning during the winter.





Dr. Kelly Carden

HEALTH AND SAFETY CONSIDERATIONS

The change to daylight saving time in the spring is associated with negative consequences for health and safety, all of which may be related to sleep disruption and sleep loss. Negative effects of switching to daylight saving time include an increased risk of stroke and hospital admissions. Researchers recently found an 18-percent increase in adverse medical events related to human error in the week after switching into and out of daylight saving time. Studies also show that traffic fatalities have increased as much as six percent in the first few days following the time change in the spring. There also is evidence that some hormone rhythms never adjust to daylight saving time even after several months.

STANDARD TIME IS BEST

There is widespread support for the elimination of seasonal time changes. While some advocates have proposed to make daylight saving time permanent, the establishment of permanent standard time is the favored

option by many experts. Because standard time is more closely aligned with the timing of the human body clock, it is better for our sleep — and our health — than daylight saving time.

The AASM and its allies are advocating nationally for the U.S. Congress to “stop the clock” and implement permanent standard time nationwide. In the United States, you can support this effort by going to aasm.org/advocacy/take-action to contact your elected officials.

.....

Kelly Carden, MD is a sleep physician with Saint Thomas Medical Partners – Sleep Specialists in Nashville, Tennessee. The immediate past president of the AASM board of directors, she earned her medical degree from the University of Tennessee College of Medicine in Memphis and completed her residency in internal medicine at Baylor College of Medicine in Houston. Dr. Carden then completed fellowships in pulmonary medicine, critical care, and sleep medicine at Harvard Medical School in Boston. She now devotes all of her clinical time to the practice of sleep medicine.

SLEEP RESEARCH SHOWS US...

1

Good sleep is essential to good health.

2

Just one night of poor-quality sleep negatively impacts attention span, memory recall and learning ability.

3

Sleep health indicates how well an individual or population is doing.

4

75% of US adolescents sleep less than the recommended 8-10 hours.

5

Sleep regularity is positively associated with academic performance.

6

Studies suggest that sleep quality rather than quantity has a greater impact on quality of life and daytime functioning.

*Citations available on healthiersleepmag.com

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WORLD SLEEP SOCIETY
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Ask the Sleep Doc

As answered by our issue reviewers.



Lourdes DelRosso, MD



Melissa C. Lipford, MD



Robert J. Thomas, MD



Rochelle Zak, MD

Q: *Is it possible to sleep too much?*

Dr. Thomas:

Hypersomnia is the term used to describe excessive sleep duration, and is not normal. The capability of sleeping 11 or more hours in a 24-hour period (without prior sleep loss) is considered abnormal. It is normally not possible to extend sleep more than an hour or so as sleep duration is a stable trait. A change in sleep duration is abnormal—either shortening or lengthening. The latter, for example, is associated with risk of developing dementia.

Dr. Lipford:

Yes, it is possible to sleep too much. Most individuals need between 7-9 hours of sleep nightly. While it can be normal to sleep longer following a period of sleep deprivation or if you are ill, sleeping more than 9 hours nightly may be a sign of a problem. It is possible you have a sleep disorder which may interfere with the quality of your sleep. Other medical conditions have also been linked with oversleeping regularly. If you need more than 9 hours of sleep on a regular basis,

it would be best to check in with your doctor.

Dr. DelRosso:

The American Academy of Sleep Medicine published a consensus statement on the recommended amount of sleep for adults. The consensus was that at least 7 hours of sleep were recommended. Adults can sleep more than 7 hours, but when adults sleep more than 9 hours, they may be recovering from sleep debt. Illnesses can also cause longer sleep, but it is unknown if longer sleep is associated with other health risks. If you are concerned about longer or shorter sleep, you should consult with a sleep physician.

Dr. Zak:

This is a multi-faceted question. Perhaps you awaken from naps feeling worse than before you went to sleep and believe you must have ‘slept

Ask the Doc *continued on page 32*

too much.’ In this case, the issue is awakening from deep sleep and is the result of a nap that is too long. Sleep is generally divided into REM sleep, known as dreaming sleep, and non-REM (NREM) sleep. We then subdivide the NREM sleep into light and deep sleep. We usually awaken from either REM sleep or light sleep, but if we awaken from deep sleep, we will feel as if we have not slept, often almost ‘hangover’ and worse than prior to going to sleep. This is referred to as ‘sleep inertia’ and can occur when we take a nap that is so long that it contains not just light sleep but also deep sleep. Thus, technically, no harm has been done—the body is no worse off getting that additional deep sleep during the nap—but the brain does not feel good. Thus, it is usually recommend that people take 20-minute naps to avoid entering deep sleep.

Q: Why don't I dream when I sleep?

Dr. DelRosso:

We often dream, but do not remember our dreams. Awakening right during a dream improves dream recall. What often happens is that we do not wake up during a dream and therefore we do not remember our dreams. Not remembering dreams is not associated with any concerns or diseases.

Dr. Thomas:

Dream recall and dreaming itself varies substantially from individual to individual. When woken up from

REM sleep, dreams are typical, but awakening from NREM sleep can also include dreaming. Those who claim to not dream, if woken up from REM sleep, will likely describe dreams. Not having conscious dream recall is not by itself abnormal.

Dr. Zak:

Dreaming generally occurs during REM sleep. The only way to know if you dream is to both awaken from REM/dreaming sleep and also stay awake long enough to form a memory (generally at least 30 seconds). One reason you may not be aware of dreaming is if you are sleeping soundly throughout the night. However, the most common reason that I see patients not dreaming occurs when they have Obstructive Sleep Apnea (OSA). OSA is often worse in REM sleep and many patients with OSA have very fragmented REM or hardly any REM sleep in the untreated state and thus do not have dreams. Once they get treatment, they will often have the return of dreaming (so called "REM rebound").

There are also medications that can decrease REM sleep, most notably many classes of antidepressants, and while very few actually eliminate REM sleep, the decrease in amount of REM sleep can sometimes be perceived as having fewer dreams.

Q: What should I do if pain won't allow me to lie down for 8 hours?

Dr. Thomas:

Severe acute pain will markedly disrupt and reduce sleep—this is evolutionarily adaptive. Chronic pain causes restless sleep and arousals from sleep. It is best to target the cause of pain, and get what sleep one can. Sleeping aids alone are not a good idea, without addressing the cause of the pain. Strong pain killers like morphine can by themselves lighten sleep and cause awakenings.

Dr. Zak:

The first approach should be to work with your primary care physician and/or a pain specialist to try to determine the cause and provide treatment of the pain.





Ask the Doc *continued from 32*

Assuming that has been done, the next step is to find the position in which it is possible to sleep. Lying in a bed may be the most convenient and conventional way to sleep, but it is possible to sleep sitting up, such as in a recliner, or for some people with acute back pain, it can be the floor. Physical therapists can advise helpful strategies for finding comfortable positions.

Q: Can a full moon interfere with my sleep?

Dr. Thomas:

There is data suggesting shorter and lighter sleep during full moon, even when measured in a chamber without windows. There has been difficulty replicating this finding. Expectancy effects are likely important. Certainly, if sleeping outdoors, sleep duration can be impacted by moonlight (shorter with a full moon), especially in those who are sensitive to light (this varies considerably person to person). Humans are not thought to be able to respond directly to gravitational changes. Nevertheless, there are individuals who claim strong effects, and there is no need to contest that as it is plausible. Objective measurement is ideal to settle any argument.

HAVE A QUESTION FOR THE SLEEP DOCS?

Submit your questions by email to healthiersleep@worldsleepsociety.org.

Questions are selected based on space & applicability.



Do you know the truth about healthy sleep?

Nine truths and a lie. Can you spot the false statement below?

- True False 1.) I can't train myself to sleep less.

- True False 2.) Sleep loss affects my leadership ability.

- True False 3.) Quantity of sleep has the greatest impact on daytime functioning.

- True False 4.) Reduced sleep often means an increased appetite.

- True False 5.) 75% of U.S. adolescents sleep less than 8-10 hours.

- True False 6.) One night of poor sleep negatively impacts learning ability.

- True False 7.) Routine sleep without interruption means lower rates of chronic illness.

- True False 8.) Athletes are more likely to get injured when sleeping less than 8 hours.

- True False 9.) I have more empathy when sleeping well.

- True False 10.) Getting quality sleep makes others perceive me as more youthful.

Answer on page 3.



Super Sleeper Checklist

To get a better idea of what a healthy night's sleep looks like, think about the following elements:

Healthy sleep tends to...

- Begin and end at around the same times each night/day of the week
- Last between 7-9 hours in length
- Incorporate 0-1 total wakeups per night
- Include 0-15 minutes of time spent awake within a night
- Conclude with waking at the specified wakeup time and not before
- Leave you feeling refreshed and energized in the morning

If your sleep isn't super, consider learning more about healthy sleep hygiene and ways to make sleep a priority in your life. If serious concerns arise, a visit to your primary care physician may be in order.

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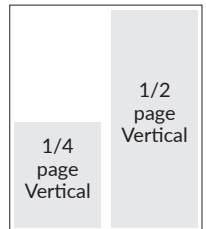
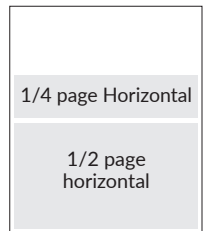
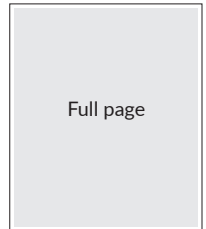
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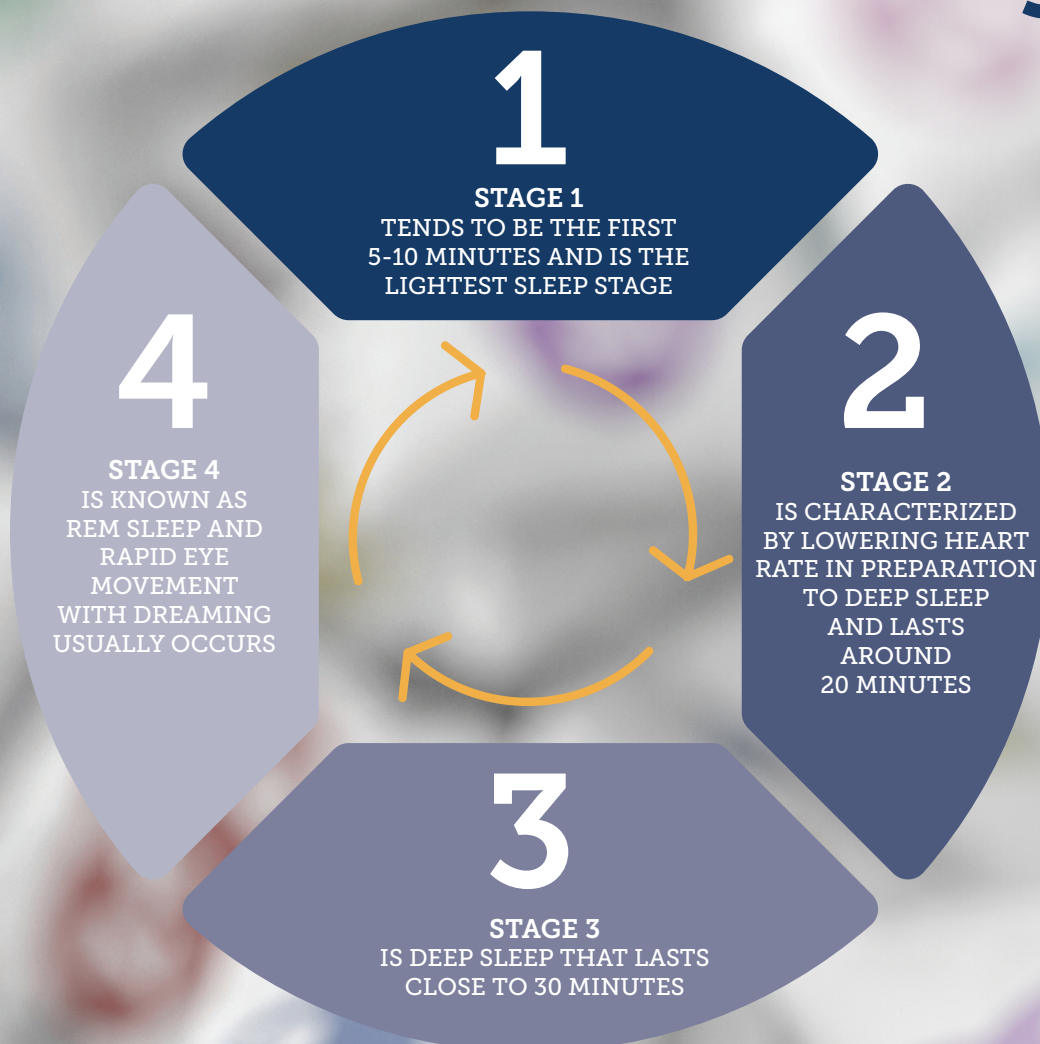
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Stages of Sleep



Generally, we each pass through four phases of sleep: NREM 1, NREM 2, NREM 3 and REM (rapid eye movement) sleep.

The cycle begins and continues through to REM sleep before the entire cycle repeats.