Sleep Issues & Yoga

Description

Lesson Overview

In this lesson, we explore the importance and impacts of sleep and insomnia, and how yoga can help with good sleep.

Objective

Gain a foundational understanding of the impacts of sleep and inadequate sleep on health and well-being, and yoga practices to support good sleep.

Description

Describe the many aspects of health and well-being that are directly related to how well or how poorly we sleep. Explain how sleep is related to recovery from trauma and stress. Cite research related to the effects of insomnia, including the relationship between Alzheimerâ??s and sleep disturbances. Describe how yoga promotes good sleep. Provide an approach to practice, plus specific poses and sequences, to support good sleep. Provide examples of practices that are typically not advised for late in the day. Provide more yogic techniques aside from asana to support good sleep. Summarize other key advice for improving sleep quality and duration.

The Role of Sleep in Health & Well-Being

According to Ayurveda philosophy, sleep is one of three pillars that endow the body with strength, vigor, and healthy growth. â?? **Ram Rao, PhD**

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Most people donâ??t realize that sleep is a keystone of health. When weâ??re sleep-deprived, itâ??s really hard to eat well or to have the energy to exercise. Itâ??s hard to think straight. Itâ??s even hard to stay in a good mood or have a positive outlook on life. â?? **Mark Hyman MD**

Good sleep is directly related â?? and fundamental â?? to health and well-being. Poor sleep can cause or exacerbate a variety of issues.

Sleep is just as critical to our body as other basic functions of survival like eating, drinking, and breathing. Sleep is needed for a number of reasons, including energy conservation, restoration of our tissues and cognitive function, emotion regulation, and immune health. â?? **Danielle Pacheco**

Sleep impacts:

- Overall functioning and health (link)
- Stress resilience
- Cognitive function and memory
- Work performance (link)
- Physical capability, accidents, exercise performance
- Feeling states, mood, emotional disturbances, depression, burnout (link) and (link)
- Recovery from trauma and stress (link)
- Energy levels (link)
- Appetite, weight, fat gain, cravings, insulin resistance and diabetes
- Testosterone levels
- Heart health and cardiovascular disease (link) and (link)
- Immunity and susceptibility to degenerative diseases and infections
- Releasing / forgetting impressions we donâ??t need
- Clearing toxins and the resultant risk of brain diseases (link)
- Fear (fear responses significantly wane in the slow-wave sleep cycle) (link)

You may also wish to see Olga Kabelâ??s commentary here about the Yoga Sutras related to dreaming and deep sleep. She explores a number of considerations, concluding that one interpretation could be:

So looking at sutra 1.38 through the prism of modern science we can translate it like this: â??Fully engaging with and comprehending the nature of dreams and the deep sleep state can lead to mental stability.â?• â?? Michael Joel Hall

The Amazing & Vast Effects of Good Sleep

A good nightâ??s sleep is the foundation for a healthy, happy, productive existence. Good sleep staves off many of the bad things listed above. And without good, regular sleep, we just go through life in a scattered daze, everything foggy, slightly confusing, and less enjoyable. Weâ??re not really ourselves if we havenâ??t slept. We desperately need a good nightâ??s sleep, every night. But good sleep isnâ??t just about avoiding the negative effects of not sleeping. Sleep is an incredibly active time for our bodies

and brains when we undergo all manner of growth and repair processes through a dynamic biochemical orchestration. Sleep is key, essential, absolutely downright necessary for our basic physiological operationsâ?¦ Sleep spurs the release of human growth hormone (HGH), an essential player in cellular regeneration (and fat burning). A full night of sleep wonâ??t just reduce the risk of brain degeneration, it will enhance your memory performance and creative problem solving skills the next day, not to mention make you a better person to be around by helping you see the positive in your interactionsâ?¦ College athletes who sleep two extra hours per night have more accuracy and faster sprint times. Good sleep means you dream, and dreams are the way your brain deals with issues your conscious self cannot or will not. â?? **Mark Sisson**

Inadequate Sleep Has Wide-Ranging Ill Effects

Inadequate sleep can quickly sabotage your efforts at getting healthy and losing weight. Sleep is a major cornerstone of an energetic, joyful, healthy life. Not getting enough sleep or getting poor-quality sleep adversely affects hormones that make you hungry and store fat. One study found just one partial nightâ??s sleep could create insulin resistance, paving the path for diabesity (late-onset diabetes associated with obesity) and many other problems. Others show poor sleep contributes to cardiovascular disease, mood disorders, poor immune function, and lower life expectancy. â?? **Mark Hyman MD**

Releasing / Forgetting Impressions We Donâ??t Need

According to researchers, sleep helps us to forget some of the things we learn each day. Learning requires new neuronal connections or neuronal branching in our brains, which help neurons to communicate with neighboring neurons quickly and efficiently. Furthermore, these new neuronal branches also store firsthand memories of impressions that we draw in each day through our five senses. However, some of this information is redundant and does not require being stored. For example, you do not need to know what clothes you wore to work on a Thursday couple of weeks ago. Similarly, the people you saw at the airport terminal is not a value for the brain. â?? Ram Rao PhD, New Theory About the Purpose of Sleep (and Why Itâ??s So Important to Get Sound Sleep) link

Sleep Flushes Out Toxins in the Brain

Lack of sleep impairs reasoning, problem-solving, and attention to detail, among other effectsâ?¦ [In addition] a mouse study suggests that sleep helps restore the brain by flushing out toxins that build up during waking hours. The results point to [the] role for sleep in health and disease. â?? **National Institutes of Health, How Sleep Clears the Brain**

Dreaming Directly Involved in Managing Stress & Healing Trauma

Have you ever had the experience when you get worked up about something one day and after a night of good sleep it seems much less dramatic? This happens because there is a built-in mechanism in our brains that enables us to â??get overâ?• our small and large dramatic eventsâ?¦. While you dream, your brain separates the memory of the event itself from your emotional reaction to itâ?¦ This is a natural process that happens every nightâ?¦ Normally, dream sleep is the only time during the entire 24 hour daily cycle when the production of noradrenaline (the stress chemical) in the brain is completely

shut offâ?¦ This combination of a sufficient amount of dream sleep AND low levels of noradrenaline in the brain enables us to â??get overâ?• our strong emotional experiences. In fact, pioneering clinical workâ?¦ demonstrated that we have to dream about our traumatic experiences to get over them. â?? **Olga Kabel**

People Paid to Perform Prioritize Sleep

Tom Brady is one of the (if not the) greatest football players of all time. Heâ??s won five Super Bowl Championships and is still dominating at over 40 years old. You know what time he goes to bed at night? 8:30. Then thereâ??s Roger Federer. Heâ??s one of the greatest tennis players of all time. 20 Grand Slams. Nearly 100 tour wins to go along with over $100 million in career earnings. You know how many hours he likes to sleep a day? 11 to 12. (Otherwise, he says he â??just doesnâ??t feel rightâ?• and says heâ??ll get injured.) Then we have another all-time great: LeBron James. He and Federer must be studying the same peak-performance playbook because heâ??s another 11 to 12 hours of sleep per night kinda guy. Nowâ?¦ Why in the world would the worldâ??s best athletes spend so much time in bed?! Because they get paid to perform. And they know that SLEEP is one of their secret weapons. The question is: Why do YOU think you can get by on so little sleep? â?? **Brian Johnson**

See Also

- Nervous System & Stress
- Yogaâ??s Impact on the Nervous System & Stress
- Trauma

Research

Yoga & Sleep

Improved sleep in women undergoing chemotherapy (2014) link

- A study found in the journal Cancer connects the practice of yoga with modest improved sleep in breast cancer patients undergoing chemotherapy.
- Women practicing yoga, compared to a control group, reported â??fewer daytime disturbances.â?• Women who practiced more yoga reported â??better sleep quality and sleep efficiencyâ?• indicating more time spent asleep.

Randomized clinical trial: Improved sleep for older adults experiencing sleep issues (2015) link and link and link

- 50 older adults experiencing moderate sleep issues, year-long study
- Mindfulness meditation group had greater improvements in sleep quality compared to control group; also had fewer symptoms of insomnia, depression, and fatigue
- Meditation group: took a six-week program on mindfulness meditation, plus had meditation â??homework.â?•

- Control group: sleep hygiene practices
- Published in JAMA

Randomized control trial: Mindfulness practices and CBT were equally effective for insomnia (2018) link and link

- 47 participants
- All received four sessions of Cognitive Behavioral Therapy (CBT) for insomnia and then were randomly allocated to one of two groups
- Mindfulness group: 4 sessions focused on â??meditation, acceptance, and not getting caught up in anxious thoughts or frustrationâ?•
- Cognitive Therapy group: 4 additional CBT sessions (â??learning how to change unhelpful thinking patterns and beliefs about sleep into more productive, helpful thoughts and beliefsâ?•)
- â??The researchers found that both treatments were equally effective. Even though the mindfulness-based therapy did not directly address unhelpful thoughts, it still appeared to change the thought patterns of the participants for the better.â?•
- Unfortunately, most people with insomnia who seek help only receive sleeping pills, which we know isnâ??t the best long term solutionâ?¦ For many years cognitive-behavioral therapy for insomnia (CBT-I) has been the recommended first line treatment â?? about 75% of people with insomnia respond well. We know in the long term that this approach is more effective than medication. More recent research has suggested that mindfulness-based approaches are also effective treatments for insomnia.

Sleep Other

The following research is not related to yoga but to sleep in general.

Insomnia impacts health & quality of life link

- This research explores the effect of insomnia on next-day functioning, health, safety, and quality of life.
- â??It is well known that psychiatric conditions, anxiety and depression in particular, are comorbid with insomnia. However, emerging data have shown links with several common and costly medical conditions such as heart disease and diabetes.â?•
- â??Furthermore, studies show that patients who have insomnia have more emergency department and physician visits, laboratory tests, and prescription drug use than those who do not have insomnia.â?•
- â??Insomnia also has been shown to negatively affect daytime functioning, including workplace productivity, as well as workplace and public safety.â?•

Alzheimerâ??s disease linked to sleep disturbances link

- â??Sleep is essential for both cognition and maintenance of healthy brain function.â?•
- Neural activity contributes to memory consolidation and cerebrospinal fluid (CSF) clears metabolic waste products from the brain. Results demonstrate that the sleeping brain exhibits waves of CSF flow on a macroscopic scale, and these CSF dynamics are interlinked with neural and

hemodynamic rhythms.

For years, researchers have been searching to explain a link between Alzheimerâ??s disease and sleep disturbances. Though many theories exist, just [recently], scientists made a stunning discovery. During deep, non-rapid eye movement (non-REM) sleep, your brain actually cleans itself. This study details how during non-REM deep sleep, your brain experiences a measurable electrical surge followed by a wave of cerebrospinal fluid every 20 seconds throughout the stage. This wave of fluid is literally washing your brain. There are so many factors that affect your ability to get quality sleep, such as sleep disorders like sleep apnea, imbalanced hormones, alcohol use near bedtime, anxiety and depression, toxic exposures, your daily routine, and many more. But the good news is, thereâ??s a lot you can do to improve these factors. â?? **Dr. Mark Hyman**

Deep sleep helps protect physical & mental health link

- â??Getting enough quality sleep at the right times helps protect physical and mental health.â?•
- Slow-wave sleep (SWS) represents high-intensity sleep and predominates in the first part of the night. Rapid eye movement (REM) sleep accompanies dreaming.
- Deep sleep drives brain fluid oscillations.
- Rhythmic fluid flows in deep sleep may allow communication and clearance of waste products

Sleep related to mood, empathy, & burnout (2003) link

- Study participants: 47 interns in the internal medicine resident program at the University of Pennsylvania School of Medicine
- Associations between sleep deprivation and mood, empathy, or burnout were explored.
- The prevalence of chronic sleep deprivation, depression, burnout, and empathy increased from baseline to year end. There was an association between becoming chronically sleep deprived and becoming depressed (OR = 7, p = .014).
- There was an association between chronic sleep deprivation and mood disturbances.

Sleep disorders related to work performance link

- Chronic sleep deprivation has been associated with negative work outcomes, including absenteeism and occupational accidents.
- One-thousand Americans who work 30 hour per week or more were asked questions about employment, work performance and sleep in the National Sleep Foundationâ??s 2008 Sleep in America telephone poll.
- Long work hours were associated with shorter sleep times, and shorter sleep times were associated with more work impairments. Thirty-seven percent of respondents were classified as at-risk for any sleep disorder. These individuals had more negative work outcomes as compared with those not at-risk for a sleep disorder.
- Results suggest that long work hours may contribute to chronic sleep loss, which may in turn result in work impairment. Risk for sleep disorders substantially increases the likelihood of negative work outcomes, including occupational accidents, absenteeism and presenteeism.

Light exposure during sleep increased risk of serious issues link

- â??Studies consistently link light exposure during sleep to metabolic disruption. A new study adds to this researchâ?¦ older adults (between 63 and 84 years of age) who were exposed to any amount of light during sleep were at higher risk for obesity, diabetes, and hypertension. Keep that phone out of your bedroom!â?• (Chris Kresser)

Comparing the impact of resistance vs aerobic training on sleep link

- Study Participants: 386 overweight adults, divided into four groups: inactive, aerobic training, resistance training, and a combination regimen
- Study author: Angelique Brellenthin, Ph.D., assistant professor of kinesiology at Iowa State University in Ames, Iowa.
- â??Our study is one of the largest and longest exercise trials in a general adult population to directly compare the effects of different types of exercise on multiple sleep parameters.â?•
- The study found that resistance training participants began sleeping an average of 40 minutes more than usual, the aerobic exercise group slept 23 minutes more and the combined exercise group slept about 17 minutes more.
- Also, sleep efficiency increased in the resistance training group and the combined exercise group, but not the aerobic exercise group.
- â??Our results suggest that resistance exercises may be superior when it comes to getting better ZZZs at night.â?•

How Yoga Can Help

Yoga promotes good sleep. While some of the underlying reasons for yogaâ??s positive impacts may yet to be fully grasped, the following effects are known to support healthy sleeping:

- â??Hyperarousalâ?• tends to lead to sleep issues and yoga reduces such excessive energy
- Yoga promotes nervous system balance by invoking the relaxation response (See also: Why Yoga Works)
- Yoga can help to balance yin and yang energies in the body
- Yoga helps accomplish the two keys of sleep: being physically and mentally relaxed
- Yoga can help to release blocked energy*
- Sleep is usually easier in a cooler room and yoga breathing practices can help to cool the body

*** When students engage in yoga practices, they will tend to become aware of a felt sense of blockages to their energy flow and a sense of the blockages being alleviated. We can surmise that there are a variety of potential reasons for this experience of oneâ??s energy being liberated. See more: Energy & Subtle Body Anatomy.**

Olga Kabel suggests using this overall approach in 3 Steps to Help Your Yoga Students Sleep Better.

1. Ask questions to get an idea of how the sleep issues are manifesting and any â??obvious physiological reasons.â?•
2. As a result of what you learn, make recommendations on lifestyle choices that address sleep consistency, sleep environment and/or pre-sleep activities. (See Keys to Sleep Quality below for a long list of considerations.)
3. Create a yoga practice for the studentâ??s situation.

Reduce Arousal

Sleep disturbances are often caused by hyperarousal, which can result from running thoughts or a mind that â??wonâ??t turn off.â?• Yoga can help reduce arousal, thereby increasing the chances of a good nightâ??s sleep. We can also manage the hyperarousal that accompanies insomnia by tailoring our daily routines in order to expend excess energy during the day, and invoke a calming energy in the evening, and we can make yoga a part of these routines. â?? **Kayla Kurin**

Get Physically and Mentally Relaxed

The ability to fall asleep in two minutes or less, anywhere, anytime, is actually a skill like any other, and one anyone can learn. The technique for how to do so was in fact developed for Naval aviators during World War IIâ?¦ To accomplish the first goal, Winter taught the men how to physically relax. To accomplish the second, he taught them how to mentally relax. In fact, he essentially defined sleep as the state of being both physically and mentally relaxedâ?¦ Winter argues that once youâ??re physically relaxed, if you get â??your mind clear of any active thoughts for just ten seconds, you will be asleep.â?• The key to falling asleep quick is thus to stop the train of thoughts that is usually rumbling through your head. You have to stop ruminating on the regrets, worries, and problems of the day. â?? **Brett and Kate McKay**

Balance Yin & Yang Energies

One very common symptom of imbalance between yin and yang is insomnia or poor sleep, which is something you are likely to experience when you have too much yang energy or too little yin energyâ?¦ Not being able to sleep is considered an imbalance in Chinese medicine, which addresses the energy meridians and seeks to balance the bodyâ??s energy by tonifying or unblocking your qi. Acupuncture is one approach to this, in which needles are placed in specific points on meridians to balance energy excesses or deficiencies. Yin Yoga is largely based on the same principle. It seeks to address energy along the meridians, which are believed to be situated in our connective tissue. These not-too-intense, longer-held stretches bring profound release and physical benefits [and provide a] release that allows blocked energy to circulate. â?? **Josh Summers**

Cool the Body

Itâ??s usually easier to fall asleep in a cooler room than a hot oneâ?¦ you might stick your feet out from under the blanket if you are feeling too warm. Exposing your extremities to open-air helps cool you downâ?¦ My trick for falling asleep in a room thatâ??s too warm is to dip my feet into cold water and then leave them slightly wet as I climb back into bed. As water evaporates from the feet, it helps to cool you downâ?¦ The yoga tradition, of course, has its tricks for cooling the body. You can try Shitali breath, which involves breathing in through a rolled tongue, or its cousin Sitkari, which involves breathing in through your teeth. Both of those techniques are meant to cool you down. If you also lengthen your exhalation when you practice those, it will also help to calm your nervous system. Another general suggestion that concerns body temperature comes from the yogic ideas of Ida and Pingalaâ?¦ Breathing through the left nostril is supposed to stimulate the lunar channel and cool the body. â??
Olga Kabel

Poses & Sequences

Promote Relaxation Response

You will want to be familiar with common physical and energetic effects of asana categories (standing poses, backbends, forward bends, Restorative Yoga, Yin Yoga, etc) as these are always foundational considerations when choosing poses. However, the approach undertaken while practicing is arguably more relevant than the specific postures. Practices most likely to support good sleep are those that

support the relaxation response for nervous system balance including:

- Gentle stretches, held for sustained periods
- Slow and measured breathing
- Moving slowly (eventually)
- In cases where there is nervous anxiety, one may need to first begin with more vigorous or stimulating practices to meet the current energy; See more in Sequencing & Pacing to Balance Energy

To encourage sleep, itâ??s typically advised to minimize exhilarating practices late in the day, such as:

- Deep backbends
- Power Yoga or Vinyasa Flow or Surya Namaskar
- Stimulating breath practices such as Kapalabhati
- â??Over-Enthusiastic Ujjayi Breathingâ?• (Lisa Sanfilippo)
- â??Overteachingâ?• or â??Creating Dependence on Your Cuesâ?• (Lisa Sanfilippo)

Itâ??s More About the Manner in Which You Approach Each Posture

What should your yoga practice resemble late in the evening when youâ??re wanting to counteract anxiety and insomnia? Thereâ??s no single style or sequence of yoga thatâ??s ideal for everyone at night. Itâ??s more the manner in which you approach each posture that makes a difference. Sustained and gentle stretches. Slow and steady breathing. Moving slowly in between poses rather than being rushed. Itâ??s a simple equation of easy movement and measured breathing which instigate your parasympathetic nervous system, which in turn brings profound release and relaxation â?? both physical and psychological. â?? **Jeanie Manchester**

Avoid Vinyasa Flow in Favor of Slow Flows or Static Poses

While the after-work hot yoga class or vinyasa flow may be great for some, if you or your students are finding sleep elusive, youâ??ll likely need to schedule these heating, heart rate-increasing practices for much earlier in the day â?? or avoid them entirely in favor of slower and steadier yoga. Later in the evening, offer slow flows or static poses, with plenty of time to breathe with each movement. Add more cooling practices that slightly lengthen the exhale; or teach Chandra Bhedana Pranayama (Moon-Piercing Breath), a single-nostril breath associated with cooling, calming energy. Even if you begin with a heating practice and fast movements, cool it down at least about halfway through class to set your students up for relaxation. â?? **Lisa Sanfilippo**

Sequences

Poses + A Full Sequence link

- **Title** â?? 15 Yoga Poses to Help You Sleep Better
- **Source** â?? Jeanie Manchester, Yoga Journal
- **Focus** â?? â??[These] poses can be done in their entirety and in the order in which they appearâ?¦ or you can simply turn to the ones that bring you relief on any given night.â?•

- **Format** â?? This sequence includes photos and instructions.

Bedtime Sequence link

- **Title** â?? 9 Yoga Poses for When You Just Canâ??t Relax at Night
- **Source** â?? Gabrielle Marchese, Yoga Journal
- **Focus** â?? â??This gentle yoga sequence is designed to ensure that you leave the tension behind and fall asleep with ease.â?•
- **Format** â?? This sequence includes photos and instructions.

A Shorter List link

- **Title** â?? 7 Yoga Poses Thatâ??ll Help You Fall Asleep Faster
- **Source** â?? Elizabeth Marglin, Yoga Journal
- **Focus** â?? â??The next time you find yourself tossing and turning, try one of these yoga poses that top teachers around the world practice to help them start snoozingâ?•
- **Format** â?? This sequence includes photos and instructions.

Asana & Meditation for Releasing the Day & Sleeping Deeply video

- **Title** â?? Yoga for Better Sleep
- **Source** â?? Olga Kabel
- **Focus** â?? â??This yoga practice uses simple movement, deep belly breathing and meditation to gradually let go of the regrets, worries and problems of the day. The practice also includes guided relaxation that you can do in bed.â?•
- **Format** â?? This is a 39 min video

Morning & Evening Sequences link

- **Title** â?? Morning and Evening Yoga Sequences for Better Sleep
- **Source** â?? Kayla Kurin, Yoga International
- **Focus** â?? A restorative evening sequence, plus a morning sequence â??for increasing energy levels and reducing early-morning grogginessâ?•
- **Format** â?? Includes pose sequences with photos and instructions.

The Best Yin Yoga Stretches for Better Sleep link

- **Title** â?? The Best Yin Yoga Stretches for Better Sleep
- **Source** â?? Josh Summers, Yoga Journal
- **Focus** â?? â??This sequence of stretches for sleep is designed to enhance your yin energy and cool your yang aspects to promote a proper night of rest.â?•
- **Format** â?? Includes pose sequences with photos and instructions.

From Bed

In this article, Nina Zolotow describes practices that can be done from bed (either when going to bed or upon waking in the night). Here are some suggestions:

1. Practice calming breathing techniques such as extending the exhalation, Brahmari or cooling practices.*
2. Say a mantra in your mind. (Zolotow suggests using something different than that used during the day when youâ??re trying to stay awake.)
3. Do a self-guided body scan for physical relaxation.
4. Listen to calming music, a guided relaxation or ASMR in a voice that you find calming. Suggestions below.
5. Practice a supported inversion or other restful pose (such as inserting a pillow or bolster under pelvis as shown here).

*Avoid stimulating breath practices such as Kapalabhati or extending the inhalation. Zolotow notes that most people will not find Sama Vrtti or Nadi Shodhana down-regulating enough for sleep, but if someone does find those practices calming, they should choose what works best for them.

Calming Recordings and Channels

Music

- Chinese Bamboo Flute, Relaxing Zen Music & Water
- Soothing Instrumentals for Relaxation & Sleep
- Just Music TV
- 432 hz Music for Sleep
- Tibetan Healing Sounds

ASMR

- Whispers of the Wolf ASMR & Reiki
- TingTing ASMR
- WhispersRed ASMR

More Yoga Techniques

There are many yogic techniques aside from asana to consider.

A simple, age-old breathing practice that I use and teach is ideal for insomnia caused by stress. Itâ??s the 4-7-8 Breathing Pattern. Lie in your bed in the dark, ready to sleep. Then inhale to the count of four, hold your breath to the count of seven, and exhale to the count of eight. I recommend continuing this for two minutes, but you can always do it longer. â?? **Max Strom**

See these additional resources:

- Class Elements, Techniques, Tools & Practices â?? Review many yoga tools at your disposal
- Anxiety Practices to Consider â?? Review a list of considerations including breathing practices, present moment awareness, yoga philosophy, sound and mantra, and meditation

- Pranayama & The Breath Hub â?? Of particular relevance: Natural Breathing, Basic Breath Training and Cooling Practices
- Sound, Mantras & Chanting Hub
- Meditation & Mindfulness Hub

Tuning into Breathing Patterns & More

I asked about what he eats, drinks, and how he breathes. The other keys I routinely inquire about is how a client exercises, rests, and thinks. I already know he canâ??t sleep or rest. His exercise routine is a typical Type A: the harder the better, weights, running, everything high intensityâ?¦ I did a breathing diagnostic tuning into the pathway of his native breath and watching with awareness as he proceeds. Then I requested he grow his breath and expand into the three abodes: pelvis, ribcage, and upper chest. And I watch. Where is the restriction, the fear, the blind spot? â?¦ His breath was not smooth and rhythmic, but forced and extremely vigorous as if preparing for a heavy bench press. It appeared as a big explosion into the belly then nothing into any thoracic or ribcage portion of his form. Most importantly how he thinks. Wow. This man is responsible for all the woes of the earth, politics, and his familyâ?¦ He is intense, passionate, and pissed off! â?¦ He carries all of this energy with him in his mind constantly. With this information about his anxiety-related sleep problems in mind, I felt it wise to focus my recommendation prescriptively for how he breathes, exercises, and thinks. â?? **Shari Williams**

Keys to Sleep Quality

If a student comes to you seeking help with sleep troubles, there are many yogic techniques we can use to help. However, those techniques become less effective if her body has to fight against.. natural sleep-wake cycles, effects of stimulants, and so on. â?? **Olga Kabel**

Itâ??s important to be aware of the extensive body of knowledge around improving sleep quality and duration so as not to presume yoga is being practiced in a vacuum. There are numerous factors related to sleep quality.

Most sleep experts will tell you that the key to consistent and restful slumber lies in cultivating good sleep hygiene â?? a set of simple and sensible behavior guidelines which echo yogic and ayurvedic principles. Youâ??ll be surprised how much your sleep can improve if you apply these tips routinely over time. â?? **Carrie Demers**

1. Keep baseline stress levels as low as possible with a daily practice of stress management activities such as taking time in nature, practicing mindfulness and meditation, and gentle inversions. (See also: Nina Zolotow, Stress Management for When Youâ??re Stressed)
2. Address trauma and PTSD.
3. Maintain a consistent sleep schedule.
4. Use blue blocking goggles and/or eliminate screens after dark.
5. Practice resistance training.
6. Favor an earlier bedtime.
7. Drink warm tea or herbs before bed.
8. Create a bedtime routine including removing sensory stimulation for a period of time before bedtime.
9. Create a sanctuary space for sleeping.
10. Keep bedroom cool.
11. Have tools for nighttime awakening. (See From Bed above.)
12. If you canâ??t return to sleep, leave the bedroom but do not turn on lights or technology.
13. Try nutritional and herbal support such as 5- HTP, passion flower, valerian, melatonin, magnesium, collagen, bone broth, kava kava, lemon balm, chamomile, lavender, St. Johnâ??s wort, ashwagandha, punarnava, brahmi or Jatamansi.
14. Improve daily habits of exercise, sunlight and healthy eating.
15. Avoid or limit the hours of intake for caffeine, tobacco, alcohol and sugar.

The Importance of Sleep Routines

According to happiness researcher Gretchen Rubin, what you do every day matters more than what you do once in a while. Since you go to sleep every dayâ?¦ **how**you go to bed can make a huge difference in the quality of sleep you get. â?? **Lena Schmidt**

Nutrition & Lifestyle Are Key Factors in Sleep Quality & Duration

A high-calorie diet[3] can disrupt circadian rhythms, and a lack of nutrients[4] like calcium, magnesium, and Vitamin D may negatively affect sleep duration. In contrast, healthy behaviors like physical exercise [5] contribute to better sleep quality and increased energy. â?? **Danielle Pacheco**

Natural Remedies

I recommend 300 to 600 mg of passionflower or 320 to 480 mg of valerian root extract before bed. Other natural sleep supplements include melatonin or magnesium. Potato starch mixed into a glass of water before bedtime can also help. Start slowly with one teaspoon and gradually build up the dose. This feeds good gut bacteria and improves blood sugar control while helping you drift into sleep. â?? **Mark Hyman MD**

Waking in the Night

What not to do [when waking in the night] is just as important as what actions you can take to fall back asleep. Donâ??t allow yourself to start working in your mind. Donâ??t think about your job, your problems, or anything like that. Instead, get out of bed and sit in a chair near the bed in the dark. Then

in your mind, focus on a relaxing and wonderful memory. One of the best times of your life. Not an exhilarating and exciting one, but a calm and loving one where you felt safe and seen and full hearted. Once you feel like you might be able to go back to sleep, get back into bed. Absolutely under no circumstances should you look at your phone, laptop, or TV. â?? **Max Strom**

Morning Routines Important, Too

Great sleep starts in the morning. As soon as youâ??re awake, go outside and greet the sun. Get natural sunlight onto your body and into your eyes in order to â??tellâ?• your circadian clocks that the day has begun and you are awake. The more natural light you get in the daytime, the better you sleep at night.[15] Stand barefoot on the earthâ?¦ Studies suggest that connecting to the earth with your bare skin can improve subsequent sleep. Get some physical activity. Sex, exercise, a little light movement, a barefoot walk outside (which is efficient because itâ??s both light and movement and connection to the earth). The point is to move your body to give your circadian clock the message that youâ??re ready to live the dayâ?¦ You donâ??t have to eat breakfast, although some people find it really helps them get better sleep. But if you do, make sure youâ??re eating protein. â?? **Mark Sisson**

Healing Stress & Trauma

Most of us are trying to get over something â?? experiences big and smallâ?¦ Here are some of the strategies that we can employ for ourselves and our students:

- Allowing enough time for sleep and using yogic techniques to improve the quality of sleep.
- Bringing our emotional wounds to the front of our awareness so that our brains could deal with them during the dream state. It can mean journaling or talking about our own troubles or creating a safe space for our clients to share their stories.
- Working on separating our memories of the event from the emotional charge associated with it through our yoga practice (meditation works great for that).
- Choosing to look at our nightmares as a brain process that is attempting to help us get over our traumatic experiences.
- Using yogic stress management techniques (specifically *langhana* techniques, and specifically pranayama) to try to lower the levels of chronic stress and as a result, circulating levels of noradrenaline.

â?? Olga Kabel

Sleep Stages & Body Clocks

Sleep isnâ??t a uniform state of unconsciousness you slip into when it becomes dark and, theoretically, ride until morning. Itâ??s a dynamic process that goes in waves â?? or more precisely, cycles â?? throughout the night. â?? **Mark Sisson**

Sleep Stages

A sleep cycle lasts about 90 minutes and encompasses the following stages. We cycle through these stages multiple times per night.

- Stage 1 â?? Light sleep
- Stage 2 â?? Deeper sleep
- Stages 3 & 4 â?? Slow-Wave Sleep (deepest sleep)
- REM â?? â??Lighter sleep where our more interesting dreams occur although we can also dream in non-REM phasesâ?• (Mark Sisson)
- In the first half of the night, you spend relatively more time in SWS. The latter half is characterized by a higher proportion of REM sleep. (Mark Sisson)

Fascinating Brain Activity During Sleep

When you are dreaming â?¦ your eyes dart quickly from side to side underneath your eyelids, which is why the dreaming stage of sleep is called REM (rapid eye movement) sleepâ?¦ If you were hooked up to the electrodes that monitor your brainâ??s electrical activity and record the type and length of your brain waves, it would be hard to tell from just looking at the output if you were dreaming or awake. The quality of brain activity during the waking state and dreaming state is remarkably similar; in fact, some parts of the brain are about 30% more active during dreaming than when you are awake. Whatâ??s going on there? Why does your brain need to be so active when you dream? And why is it so different from dreamless sleep? Letâ??s take a look at the different types of brain activity during waking and sleeping states to help us understand what the brain is doing while we snooze. [See article for details.] â?? **Olga Kabel**

Circadian Rhythms / Body Clock

â??Circadian rhythmsâ?• refer to each personâ??s particular â??body clock.â?• A personâ??s body clock is associated with such rhythmic events as sleep and wakefulness, eating and drinking, changing core body temperature and more.

One of the many ways our body clock affects our experience is through the production of a neurotransmitter called adenosine. (The nervous system uses neurotransmitters as its chemical signals.)

Adenosine is a type of neurotransmitter that is involved in energy metabolism and expenditure. Over the course of the day, your body usually accumulates more adenosine, which makes you feel tired and ready to sleep by night time. By the time you wake up the next morning, youâ??ve metabolized adenosine and should feel refreshed. â?? **Jillian Levy**

Olga Kabel explains here that â??adenosine begins to build up in your brain the moment you wake up and continues to build throughout the day. After 12 to 16 hours it reaches a high concentration that signals to the brain that it is time to sleepâ?¦ Sleep gradually reduces adenosine, but if you wake up before you are ready, you will begin your day with extra sleep chemical.â?•

The level of adenosine in your body is always fluctuating and is affected by exercise, brain work, metabolic distress, oxidative stress and trauma.

Body Clocks Are Longer than 24 Hours and Vary by Person

Initially it was thought that the circadian rhythms were linked to exposure to the sun, but in 1938 two researchers disproved that point. They literally went and lived in a cave for 32 days without any hint of sunlightâ?¦ Both researchers continued to exhibit the same predictable pattern of prolonged wakefulness (about 15 hours), followed by a period of sleep (about 9 hours)â?¦ They discovered that their daily cycles were not precisely 24 hours. The 24-year-old researcher developed a sleep-wake cycle of about 26-28 hours, and the 40-year old researcher had a cycle of slightly longer than 24 hoursâ?¦ Subsequent studies have shown that the average duration of the human circadian clock is about 24 hours and 15 minutes. It doesnâ??t seem like that much of a difference, but over days and months this difference accumulates, unless the daily cycle of the sun corrects itâ?¦ Daylight is the most reliable, regularly repeating signal that we perceive in our environmentâ?¦ Another factor that sometimes gets overlooked is that though we all have a circadian rhythm that is close to the 24-hour cycle, the peak times of wakefulness are different for all of us. â?? **Olga Kabel**

Going Deeper Into Various Sleep Patterns

Some apparent sleep issues may, upon investigation, turn out to be patterns that may not be dysfunctional. In the following article, Mark Sisson suggests that a full bladder may simply be a full bladder. And he introduces the fascinating subject of biphasic sleeping.

Are You Naturally a Biphasic Sleeper?

Historian Roger Ekirch argues, rather convincingly I think, that before the advent of artificial light, humans across geographical locations and social strata slept in two chunks during the night. The first, usually just called â??first sleep,â?• or sometimes â??dead sleep,â?• comprised the first four or so hours. â??Second sleepâ?• went until dawn. In between, people would enjoy an hour, or perhaps two or three hours, of mid-night activities such as praying and meditating, reading and writing, having sex, and even visiting neighbors. This was seen as completely normal, even welcomeâ?¦ Anecdotally, many famous writers, artists, and sculptors have adhered to a biphasic schedule, believing that creativity and flow are enhanced during the mid-night hoursâ?¦

Remind yourself that waking can be normal, not dysfunctional. I know this can be easier said than done, especially if youâ??re sleep deprived. The thing about biphasic sleeping is that youâ??re still supposed to get the eight hours of nightly sleep you need, give or take. That means you have to spend nine or ten hours in bed. How many people do that nowadays? See if you can commit to at least a couple weeks of sufficient time in bed. Push away your previous (mis)conceptions about what a â??goodâ?• night of sleep is â??supposedâ?• to look like. Try to welcome rather than fight the mid-night waking. Be open to what comes next. â?? **Mark Sisson**
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