

SLEEP INITIATIVE

## **SLEEP MANIFESTO**

## "3 COMMON QUESTIONS ABOUT GETTING BETTER SLEEP"

### 1. Why is sleep important?

Sleep is a fundamental factor in maintaining health in the physical, emotional, and cognitive dimensions of our lives. For good reasons, sleep health is presented as a pattern of sleep-wakefulness that promotes physical and mental well-being (1). Sufficient, high-quality sleep is associated with preventing multiple short and long-term issues.

Some of the many benefits of healthy sleep include the following (2-17):

- At a physical level, sleep helps regulate hormone levels, repair bones and muscles, and maintain a strong immune system. All these functions contribute to weight control, promote sexual appetite, help you feel and look younger, aid in faster recovery and healing, fight disease, and allow you to stay more alert. In addition, good sleep enhances our ability and motivation to engage in physical activity and improves our performance during physical activities. In the long term, good sleep offers a myriad of heart health benefits, such as healthy blood pressure and a lower risk for cardiovascular issues.
- At a cognitive level, it's during sleep that our brain consolidates memories and goes into dreaming phases, enabling stronger memory retention, learning capabilities, and creativity. Also, adequate sleep allows you to be more productive, by increasing concentration, focus, and reaction times. In the long term, good sleep is associated with a lower risk of cognitive decline, dementia, and Alzheimer's disease.
- At an emotional level, good sleep contributes to keeping the amygdala in balance, helping you manage emotions, promoting more effective self-control, and leading to better decision making. During REM sleep we process difficult memories, helping to cope with pain and stress. Good sleep fosters positive thinking and feelings of gratitude and empathy, keeping you happier and fostering human relationships.

# 2. Am I getting enough sleep?

Before addressing if you are getting enough sleep, it is important to identify whether you are experiencing a sleep disorder, such as insomnia. If you think it may be the case, please seek medical consultation. You may find more resources and information at the <u>American Academy of Sleep Medicine website</u>.

As stated by the <u>National Sleep Foundation</u> (18), among other organizations (19, 20), and following decades of research, adults need somewhere between 7 and 9 hours of sleep per night.

While that guidance provides a benchmark, the answer of how much sleep each person needs can be more complex. How much sleep a person needs will change over the course of their lifespan, with guidelines on sleep quantity varying by age group. Additionally, the science-based recommendations are expressed in a range of hours for a single age group, implying that individuals of the same age group may need different amounts of sleep. There is also an interesting question of WHEN to go to bed, and if the timing of your sleep episode, can affect the amount of your sleep. The answer is YES, when you sleep based on your genetically pre-determined sleep schedule called your chronotype (e.g., early bird or night owl).

Furthermore, sleep performance or quality can be measured by different indicators, such as duration, latency, continuity, efficiency (percentage of time sleeping while in bed), and mix of sleep stages (deep versus light sleep stages).



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Assessing your sleep performance against these metrics, adjusted by age group, is a great starting point. You may also make use of a sleep diary or any of the available sleep tracking technologies to further track your sleep performance. A sleep diary is also a great tool to support a medical consultation, if you feel the need for it. Now, keep in mind that simply measuring your sleep against a hard target can create stress, discouraging, even more, a better sleep outcome.

Beyond an objective assessment of your sleep, a complete analysis of your sleep should include your subjective evaluation of how you feel during the day and also consider your overall performance as a result of your sleep. This step will allow you to discover your individual sleep needs. A subjective evaluation may include asking yourself, to what degree do you feel you are getting the benefits of good sleep, as stated in the previous section. Do you feel at your best physically, cognitively, and emotionally?

- Do I feel physically energized?
- Do I feel cognitively alert & refreshed?
- Do I feel emotionally balanced or happy?

As you get familiarized with the sleep quantitative recommendations that apply to you, and ask yourself these or other subjective questions about your sleep outcome, you will train yourself to become more conscious of the impact of sleep in your life and be able to answer if you are getting enough sleep.

# 3. What can I do to improve my sleep?

Sleep is very personal and complex, as it depends on a large number of factors. Ultimately, an individual will reach optimal sleep performance after, first, understanding what enables and what disrupts sleep, and second, once this knowledge has been integrated into sleep-promoting habits. Together, they will orchestrate a sleep-favorable routine and lifestyle.

To discuss the most common factors that impact the quality of our sleep, we will group these around three dimensions: the physical self, the psychological self, and the environment around us. These dimensions are interrelated and must be addressed collectively, but for simplification, let us look at each one separately.

- The physical self, our body, is configured to follow a circadian rhythm, which refers to the cyclical pattern of many processes in the body and brain that ebb and flow over a typical 24-hour day. Sleep is one such circadian rhythm, with times at which the brain understands it is to be tired and others when it understands it is to be alert. It should be no surprise that the physical self, our body, will respond to our lifestyle choices that will reinforce or disrupt our circadian rhythm. The 2 to 6 hour window before bedtime is critical, where avoiding stimulants (coffee, alcohol, nicotine, or other sources of caffeine such as dark chocolate) and not eating or exercising too much will positively impact your sleep outcome. Consuming excess coffee is a common obstacle to a restful night. Exercising during the day and ideally under sunlight -, avoiding naps, and sticking to the same sleep schedule every day are impactful ways to promote better sleep.
- In terms of the psychological dimension, as mentioned, the first step is to become aware of the benefits of a
  healthy sleep habit, or the risks of neglecting it. Additionally, anxiety, stress, and depression, among other
  disorders, will prohibit good sleep. Habits that help us steer away from these states will help sleep. Exercise,
  healthy work schedules, and absence of technology before bed will contribute to calming down and preparing
  yourself for a restful night.
- As for the environmental factors enabling better sleep, the basics include a dark and silent room with temperature on the cooler side. These conditions will signal our bodies that it is time to sleep, reinforcing our circadian rhythm and triggering the required hormonal responses. Today we can control all these by using air conditioning, blackout curtains, and noise isolation or white noise devices.

The bed setup, combination of mattress, pillow, and linens, will help sleep performance as long as it helps reduce



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the chances of experiencing wake events produced by uncomfortable build-ups of pressure points (aka dead arm, neck pain), or moments of high temperature. Choosing the right bed setup is a personal decision, as the propensity to experience these events will vary significantly among individuals.

Better sleep will come once all these aspects are understood and collectively incorporated into our lifestyle

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## References

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3902880/ : Sleep Health: Can We Define It? Does It Matter?

- 2. <u>https://www.researchgate.net/publication/51617392\_The\_association\_of\_testosterone\_sleep\_and\_sexual\_function\_in\_men\_and\_women</u>:). The association of testosterone, sleep and sexual function in men and women
- 3. https://link.springer.com/article/10.1007/s00424-011-1044-0 : "Sleep and immune function." European Journal of Physiology, 463: 121-137.

5. Al Khatib, HK et al. (November 2013) The effects of partial sleep deprivation on energy balance: a systematic review and meta analysis. European Journal of Clinical Nutrition, 71: 614-624. <u>https://www.nature.com/articles/eicn2016201</u>

6. Malhotra, Raman. (August 2018). "Sleep, recovery and performance in sports." Neurologic Clinics, 35(3): 547-557.

https://www.sciencedirect.com/science/article/abs/pii/S0733861917300245

7. Mostaghimi, L. et al. (2005). "Effects of sleep deprivation on wound healing." J. Sleep Res, 14: 213-219.

https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1365-2869.2005.00455.x

8. Suni, Eric. (February 2, 2021). "Excessive sleepiness and workplace accidents." Sleep Foundation.

https://www.sleepfoundation.org/excessive-sleepiness/workplace-accidents

9. Alhola, Paula and Paivia Polo-Kantola (2007). "Sleep deprivation: impact on cognitive performance." Neuropsychiatr Dis Treat, 3(5): 553-567. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2656292/

10. "Cueing newly learned information in sleep improves memory, and here's how." (March 8, 2018). Science Daily.

https://www.sciencedaily.com/releases/2018/03/180308120605.htm

11. Isaacson, Richard S. (April 16, 2018). "Cognitive decline is associated with middle-age sleep problems." Medscape. <u>https://www.medscape.com/viewarticle/894519</u>

12. "IS ADHD really a sleep problem?" (September 4, 2017). Science Daily. <u>https://www.sciencedaily.com/releases/2017/09/170904093443.htm</u> 13. Maric, Angelina, et al. (August 2017). "Insufficient sleep: enhanced risk seeking relates to low local sleep intensity." Annals of Neurology, 82(3): 409-418.

https://onlinelibrary.wiley.com/doi/abs/10.1002/ana.25023?referrer\_access\_token=piTPWiBNiK6eWTSIn5pJkE4keas67K9QMdWULTWMo8Mi6S6PFot zb86ouXG9PG9Ih-0xgCEMJQM25X6c0rXign3ML6a13sUr3siQYbtB9wTR3MQrE8IgiEjTCputIPYOFaon9kRgLoINnLpW6A1Bfg38HDSYmnnm1p6usm 14. Yoo, Seung-Schik, (February 2007). "A deficit in the ability to form new human memories without sleep." Nature, 10: 385-397. https://www.nature.com/articles/nn1851

15. Anderson, Clare and Charlotte R. Platten (March 2011). "Sleep deprivation lowers inhibition and enhances impulsivity to negative stimuli." Behav Brain Res, 217(2): 463-6. <u>https://pubmed.ncbi.nlm.nih.gov/20888369/</u>

16. Ben Simon, Eti et al. (September 2015). "Losing Neutrality: The Neural Basis of Impaired Emotional Control without Sleep." J Neurosci, 35(38): 13194-13205. <u>https://www.ineurosci.org/content/35/38/13194</u>

17. Guadagni, Veronica et al. (August 13, 2014). "The effects of sleep deprivation on emotional empathy." Journal of Sleep Research, 23(6): 657-663. https://onlinelibrary.wiley.com/doi/full/10.1111/jsr.12192

18.<u>https://pubmed.ncbi.nlm.nih.gov/26039963/</u>: Recommended Amount of Sleep for a Healthy Adult: A Joint Consensus Statement of the American Academy of Sleep Medicine and Sleep Research Society

19. https://www.thensf.org/how-many-hours-of-sleep-do-you-really-need/ - How Much Sleep Do You Really Need?

<sup>4. &</sup>lt;u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4860870/</u>: "Sleep, Muscle Mass and Muscle Function in Older People: A Cross-Sectional Analysis Based on Data From the Berlin Aging Study II (BASE-II)." Dtsch Arztebl Int, 113(15): 253-260.

<sup>20.&</sup>lt;u>https://pubmed.ncbi.nlm.nih.gov/29073412/</u>: National Sleep Foundation's sleep time duration recommendations: methodology and results summary 21. <u>https://www.sleep.pitt.edu/wp-content/uploads/Study\_Instruments\_Measures/Consensus-Sleep-Diary-Core-and-instructions.pdf</u>: Consensus Sleep Diary



Notes for editor:

Context: The key objective of the Sleep Initiative at The Global Wellness Institute is to elevate conversation about sleep. The initiative members have come together to offer a Sleep Manifesto, a brief and simple text with a collective point of view, backed by scientific references, to the general public as a valid point of reference for common questions around sleep. There is a significant gap between what scientists know about the importance of sleep and what the average person understands about sleep. We see this as our contribution to closing the gap and helping people depart from the current sleep epidemic.

Who is the audience? General public googling for basic answers What is the voice? Friendly, but credible and scientifically backed Ideal length? 1-2 pages (+ link to more resources at the end of each section)