

THE ART OF SHUTTING DOWN

The power of sleep to boost performance, and the problem with not getting enough.

Thought Leadership



We spend, on average, one third of our lives on sleep. We log as many as 26 years sleeping, by some estimates, plus another 7 years just trying to fall asleep. That's 33 years—or 12,045 days—spent in bed.

For some of us, it's a part of our day we look forward to. For others, it's simply a bridge to tomorrow. Either way, sleep is what we do at the end of just about every day.

Or at least, we *should*.

We've all heard of hustle culture: working tirelessly to chase ambition, foregoing rest and sleep. This striving to achieve goals by any means is often seen as admirable—some believe it shows drive, passion, and determination. On the other hand, research has, time and again, shown that working ourselves to the point of exhaustion comes at the cost of our performance—and our health.

When we sleep, we repair, restore, and re-energize our brains and our bodies. This means that when we get good sleep, we see our health risks decrease, our concentration sharpens, our productivity multiply, our social interactions improve, and our performance grow.

There are a few theories as to why sleep matters so much. It could be evolutionary—a way to conserve energy and protect ourselves from nighttime predators, supporting the survival of our species. It could be biological—a means to remove naturally occurring toxins that pile up in our brains during the day. Or it could be environmental—a time to disconnect from the outside world so our brains can reset.

The primary function of sleep may be one, another, or some combination of these three hypotheses. What we know for sure, though, is

that sleep is critical—and that we're not getting enough of it.

Coming up short.

The majority of body functions—from immunity to hormonal regulation, metabolism to body temperature regulation—are all influenced by sleep. Though it's clear the body suffers from a lack of sleep, perhaps nothing suffers as rapidly, significantly, and inevitably as the brain.

Sleep deprivation can have catastrophic effects, and can even be fatal (Everson, 1995). In a laboratory study, rats that were critically sleep deprived developed problems regulating their body temperature. They began to eat more but did not gain weight, and they eventually died from massive infection. The same patterns have been observed in humans.

Certainly, for most of us, the circumstances are neither so dramatic nor dire. Humans won't die from sleeping poorly here and there or even from missing a few nights of sleep in a row. But even mild sleep deprivation can impact our metabolism and memory, not to mention have ethical ramifications—diminished memory capacity, weakened immune system, increased diabetes risk, and impaired judgement. All of which can affect our engagement, productivity, and performance at work.

A chronic lack of sleep is also associated with increases in appetite (especially for sugar and

calorie-dense foods), emotional volatility, and higher rates of false confessions in moral and legal contexts. In healthy young men, one week of sleep restriction is correlated with low daytime testosterone levels (Leproult & Van Cauter, 2011). Some symptoms of low testosterone include loss of libido, infertility, and decreased bone density—issues also affecting women with lower-than-normal hormone levels (Murrell, 2019).

With such dramatic effects, you'd think we would be better at getting the right amount of sleep. Or at the very least, we would make sleep more of a priority. But sneaky aspects of modern life disrupt our ability to *really* rest—and many of us aren't even aware.

The roots of restlessness.

We know there are things that get in the way of a good night's sleep. And still, some of us fall into their trap. We know drinking caffeine too late in the day can make it harder to fall asleep. We know stress can lead to rumination—thought patterns that can become difficult to disengage from at bedtime. We know a lack of activity during the day (like, say, sitting in front of computer for long periods of time) can leave us with too much energy at night.

But there are other ways in which our lives and our environments deprive us of shuteye. Like caffeine, alcohol is a saboteur of sleep. Although it can make us fall asleep faster, alcohol decreases the amount of REM sleep we get. And REM sleep is important for brain activity; it's when we dream and the areas of our brain involved in emotion and memory are more "awake". Babies are almost always in REM sleep, which decreases proportionally with age, suggesting a link to critical development functions. Researchers also suggest dreams are the mind's attempt to make sense of random neural activity that happens when our brain sleeps—a way for our brains to organize information. By reducing REM sleep, alcohol can make us wake up more frequently and snore more often, disrupting good, deep sleep. So, alcohol can trick us into thinking it helps us sleep, but it is actually interrupting the critical neurological processes that happen in the deepest parts of our sleep cycles.

LED light, as well as the blue light emitted from our phones and screens, also have negative effects on our sleep cycles (Gradisar et al., 2013). There is a part of our brain, called the superchiasmatic nucleus, that contains a sort of molecular clock, keeping our bodies in a circadian

rhythm by releasing neurotransmitters and hormones over a 24-hour cycle. Light (traditionally daylight) triggers this process, which involves regulating cortisol and melatonin levels, as well as regulating our core body temperature. Melanopsin, one of the key receptors involved in kicking off these processes, is triggered by light that peaks at nearly the same wavelength as LED light. In other words, the same kind of light emitted by our phones and computers activates the receptors in our brains that regulate our sleep cycles, making this light uniquely suited to dysregulate our natural sleep patterns. And in today's world, where we're always on—or at least, expected to be—it can be extremely difficult to set those boundaries between work and rest.

Sleep should be protected, not borrowed from.

You toss and turn in your bed. The clock reads 1:14 a.m. Your alarm is set for 6 a.m. so that you can get up and finish preparing for your presentation—the very one that's keeping you awake now. You check your work email again to see if your partner emailed you those final stats you're hoping to include. It's not preposterous to imagine that he will be awake. After all, who really clocks out anymore?

Imagine this alternative: you mentally review your to-do list. You've checked off every box for today and even completed some prep work for tomorrow. You have a presentation to finish, but you decide to take a step back so you can return to it with fresh eyes and insight. You consider sending your partner an email to get those final stats that you're hoping to include, but by the time you remember, it's already late, and your company has a policy against emailing after hours. Right before bed, you make a new to-do list and put the email at the top. Now, you know you won't forget, and your mind is clear before closing your eyes for the night.

Maybe this version sounds like a utopian fantasy. The notion of "earning" has become so pervasive that many mistakenly apply it to calories and sleep—the idea that you only have a right to food or rest if you "put in the work." This mindset, though, has consequences for the bottom line: according to a National Sleep Foundation study, nearly 40% of American employees report workplace fatigue, and these tired workers cost over \$136 billion annually in lost productivity.

But these basic building blocks of human functioning shouldn't be commoditized or

borrowed from when the pressures of life build. Rather, they should be protected. Here are some simple and actionable strategies that people and organizations can take to maximize and optimize sleep—and performance:

Recommendations for people:

Create a routine. Your brain is highly tuned to pattern recognition. It takes cues from your behavior and the environment to predict what's coming next. Creating a reliable and structured routine around bedtime helps your brain establish a pattern around sleep. For example, if you create a routine in which you have a cup of tea, brush your teeth, wash your face, and do 10 minutes of journaling before going to bed, your brain will start to pick up on the fact that those cues mean that sleep is next, and it will begin to prepare itself for rest. Though operating on the same principles, a nighttime routine would look very different from, say, a pregame ritual. While you might do jumping jacks or warmup drills before a soccer game, you might opt for something geared towards winding down before bed. Gentle stretching can be a good way to improve blood flow and ease muscle tension, both of which can improve sleep quality.

Stop checking your phone. Screen time before bed is harmful because the blue light emitted by our phones and computers can interrupt our circadian rhythms. The frequency of blue light produced by our devices mimics the brightness of the sun, which our brains interpret as a cue to stop producing melatonin—an essential hormone that helps regulate our circadian rhythms and sends signals to our bodies when it's time to sleep. Putting away your phone before bed is important, but it is even more important to avoid using your phone in bed, especially for work purposes. If you associate your bed with work, it will be much harder to relax there.

Give yourself a buffer between work and sleep. Having a clear division between work and rest will help your mind settle, reduce the likelihood of rumination, and shorten the time it takes to fall asleep. Researchers suggest leaving about 30 minutes between reading your last email and getting in bed. Of course, we live in the modern world, which means you may be tempted to check in with work if you keep your phone charged by your bedside. Reinforce that work-rest buffer by placing your phone on the other side of the room, keeping it on silent. Once you're cozy in bed, you won't want to get up again.

We all need sleep... but why?

There is no convincing case of a species that doesn't sleep. No indication that any animal can go without sleep without paying a high price. Even animals that need to move to stay alive have compensatory rest strategies. For example, dolphins sleep one hemisphere of the brain at a time so that they can keep swimming, and animals that are typically prey sleep in small snatches so that they are less vulnerable. But why is it so important to get sleep?

Three hypotheses may provide the answer:

Hypothesis 1: Sleep emerged in evolution to preserve energy and protect during the time of day when there is little value and considerable danger. This means wakefulness with the sun, sleep with the dark. Our eyes evolved to pick up light wavelengths most present when the sun is up. In the light of day, humans, then, could be productive. In the dark, however, rest was safer and more efficient—there were nighttime predators and not enough natural light to hunt or farm or build. Electricity and modern technology give us a break from this pattern, but evolutionarily, this makes sense.

Hypothesis 2: Sleep is biologically restorative. Sleep helps remove naturally occurring toxins that accumulate in the brain during the day. It also helps replenish glycogen (which is, functionally, energy for the brain), in cells in the brain. In this theory, sleep is when our biological janitors come out and sweep away the dirt so that we can start with a fresh slate tomorrow.

Hypothesis 3: Sleep is important to disconnect from the sensory and motor environment. During sleep, something happens in the brain that requires our brain to disconnect from our external environments. Continually processing new information through our senses and engaging in new motor activity would be a systemic overload. This theory hypothesizes sleep as a sort of sensorimotor reset button

Write it out. Putting together a to-do list can help clear the mind, reducing disruptions to the process of trying to fall asleep, as well as limit stress dreams once you fall asleep. Making to-do lists and writing out your thoughts can give you the freedom to psychologically detach from work. And studies have shown that psychological detachment from work during evening leisure time is related to less fatigue at bedtime (Sonnentag & Bayer, 2005) and in the following morning (Sonnetag et al., 2008).

Count your blessings. Listing the people and things you are grateful for can also improve the amount and quality of your sleep. [Gratitude, after all, helps boost your mood.](#) This is because gratitude can lead to better social relationships and receiving more social support (Algoe et al., 2008; Lin & Yeh, 2014; Wood et al., 2008). When people practice gratitude, research shows, they are more likely to view the world as a pleasant place, acknowledge when others have helped them, and express their gratitude more easily (Dai, et. al. 2021). And studies show that going to bed with a good mood increases the likelihood of waking up in a good mood the following day.

Recommendations for companies:

The power of a power nap. Research shows that sleepy workers can have a negative impact on a company's financial performance. But this serious problem may have a simple solution: napping. Midday naps have been shown to increase feelings of alertness and improve productivity. Already 34% of US companies allow naps during breaks. Some have designated quiet rooms with comfortable furniture for employees to rest, while others have invested in "nap pods," bed-sized compartments with a mattress and pillow for people to lie down. The key is to keep the nap between 20 and 30 minutes. In studies of the brain, a 20-minute power nap led to subsequent reduced alpha waves—the kind of brain activity that's most common when you're about to drift off to sleep. Nap for too long, and the brain gets into its REM cycles, which can be hard to wake up from. When you think about investing in your employees, consider that investing in their downtime may be just as fruitful as investing in their activity.

Leave it on "read". In 2021, Portugal joined France in passing laws that prohibit bosses from sending work-related emails after hours. Five years ago, France ratified employees' "right to disconnect," stating that they could not be punished for not responding to after-hours emails.

Are you sleep deprived?

There's nothing like a good's night sleep. But as research shows, we're not getting enough of it. Think you're among the sleep deprived? Take this quick quiz to find out.

Do you...

- zone out during the workday?
- feel irritable?
- get sick easily?
- feel sluggish throughout the day?
- have cravings for sugary foods?
- get less than 7 hours of sleep?

If you check 3 or more, you may be suffering from sleep deprivation. Research shows that the effects of sleep deprivation are far reaching and may be found in unexpected places. Don't miss the signals your body is sending you that might be showing up in mysterious ways.

Similarly, the Portuguese parliament determined that such off-hours communication was disrespectful to the privacy and rights of workers and could be met with some hefty fines. Recent Korn Ferry research identifies [being able to disconnect](#) as critically important for maintaining employee wellness and energy. And other studies have found that emails sent after hours can lead employees to experience poor sleep and increased anxiety. Companies and managers alike should consider putting in communication guardrails to ensure that employees get the offline time they need.

Incentivizing wellness. In addition to providing space and time for employees to invest in their own wellness, many companies are financially investing in the wellness of their people. As part of their overall benefits package, some organizations are offering wellness stipends to employees to spend on health initiatives, such as mental health counseling, fitness memberships, retreats, sports gear, personal training, wearables, or spa packages. What's more, companies like Headspace and Calm have created corporate

programs specifically designed for organizations and employees. By offering such programs, organizations can tackle the mental and physical barriers to sleep, resulting in improvements to wellness at large.

Getting to the root of the issue. Have you ever been told that you snore way too loudly? Or maybe you often wake up gasping for air? These could be a sign that you have sleep apnea, a nighttime breathing disorder caused by narrowed or blocked airways. Sleep apnea can lead a person to repeatedly stop breathing while sleeping, which in turn, reduces restfulness of the sleep. People with untreated sleep apnea can become excessively sleepy during the day, which can make it difficult to work and, according to one study, result in involuntary job loss. To address the issue, some employers have begun subsidizing sleep apnea screenings, with noteworthy positive outcomes. For example, Southern Co., an Atlanta-based electric utility, has supported sleep apnea testing for roughly 4,000 of its employees, 1,500 of which are now being treated after being diagnosed. This alone has saved the company upwards of \$1.2 million in health costs, according to its leaders. Another study found that commercial truck drivers who participated in a sleep apnea screening and treatment program offered by their employers saved an average of \$441 per month in healthcare costs, compared to drivers who went untreated. To drive real change, organizations can consider looking not only at the surface-level issues of tired workers, but also at targeting the root causes.

No sense in losing sleep.

In the preindustrial era, people got up before daylight and went to sleep after sunset, getting about 5.5 to 6 hours of sleep, depending on the season. Today, people get roughly 6.8 hours of sleep on average. But in this current age, where boundaries between work life and personal life continue to blur, even this can feel unattainable. And despite some progress, the average amount we sleep still falls short of how much sleep we actually need.

Adults need about 8 hours of sleep each night for optimal levels of functioning. This is higher than what elderly adults need (only about 5.5 hours), and significantly lower than what infants need (about 16 hours per day).

Study after study has proven why sleep is important. And being deprived of sleep has real ramifications, both for our health and our performance at work—forgetfulness, irritability, chronic fatigue, loss of focus. Although we're working more by sleeping less, the work we are doing is likely to suffer in quality because of the negative effect sleep deprivation has on our brains and bodies.

In the end, losing sleep is not worth the trade-off that we are making. Just think, by logging off a little earlier tonight, you're setting yourself up to do better work tomorrow and feel better while you're doing it.



By Amelia Haynes

Associate Researcher
Korn Ferry Institute

amelia.haynes@kornferry.com

Bibliography

Aminoff, M. J., Boller, F., & Swaab, D. F. (2011). We spend about one-third of our life either sleeping or attempting to do so. *Handbook of Clinical Neurology*, 98, vii-vii. <https://doi.org/10.1016/b978-0-444-52006-7.00047-2>

Balkin, T. J., Belenky, G., Drake, C., Rosa, R., & Rosekind, M. (2008). Sleep in America poll: national sleep foundation. Washington DC: National Sleep Foundation.

Bautista, J. R., et. al. (2019). Individuals with obstructive sleep apnea have higher likelihood of multiple involuntary job losses. *Sleep*. Volume 42, Issue Supplement_1, April 2019, Page A194, <https://doi.org/10.1093/sleep/zsz067.482>

Brown, R. E., Basheer, R., McKenna, J. T., Strecker, R. E., & McCarley, R. W. (2012). Control of sleep and wakefulness. *Physiological Reviews*, 92(3):1087-1187. <https://doi.org/10.1152/physrev.00032.2011>

Curtis, G. (2021, April 28). "Your life in numbers." Dreams. <https://www.dreams.co.uk/sleep-matters-club/your-life-in-numbers-infographic/>

Dai, G., Haynes, A., Farrelly, V., & Burden, A. (2021). *Optimizing Personal Energy: 5 Pillars to Sustain Wellbeing and Performance Research Report*. Los Angeles: Korn Ferry.

Everson, C. A. (1995). Functional consequences of sustained sleep deprivation in the rat. *Behavioural Brain Research*, 69(1-2), 43-54. [https://doi.org/10.1016/0166-4328\(95\)00009-i](https://doi.org/10.1016/0166-4328(95)00009-i)

Galewitz, P. (2020). "Employers target workers' sleep to help lower health care costs." ABC News. <https://abcnews.go.com/Health/employers-target-workers-sleep-lower-health-care-costs/story?id=68433011>

Gradisar, M., Wolfson, A. R., Harvey, A. G., Hale, L., Rosenberg, R., & Czeisler, C. A. (2013). The sleep and technology use of Americans: findings from the National Sleep Foundation's 2011 Sleep in America poll. *Journal of Clinical Sleep Medicine*, 9(12), 1291-1299. <https://doi.org/10.5664/jcsm.3272>

Hayashi, M., Watanabe, M., & Hori, T. (1999). The effects of a 20 min nap in the mid-afternoon on mood, performance and EEG activity. *Clinical Neurophysiology*, 110(2), 272-279.

Kadel, J. (2021). "How to improve your sleep routine if you're a workaholic." Dreams. <https://www.dreams.co.uk/sleep-matters-club/how-to-improve-your-sleep-routine-if-youre-a-workaholic/>

Leech, J. (2020). "10 reasons why good sleep is important." Healthline Media. <https://www.healthline.com/nutrition/10-reasons-why-good-sleep-is-important>

Leproult, R., & Van Cauter, E. (2011). Effect of 1 week of sleep restriction on testosterone levels in young healthy men. *JAMA*, 305(21), 2173-2174. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4445839/>

Lovato, N., & Lack, L. (2010). The effects of napping on cognitive functioning. *Progress in Brain Research*, 185, 155-166. doi: 10.1016/B978-0-444-53702-7.00009-9. PMID: 21075238.

Murrell, D. (2019). "Testosterone levels by age." Healthline Media. <https://www.healthline.com/health/low-testosterone/testosterone-levels-by-age>

Osmun, R. (2020). "Lessons learned from trends in insufficient sleep across the United States." Early Bird by Amerisleep. <https://amerisleep.com/blog/insufficient-sleep-united-states/>

Park, S. Y., Oh, M. K., Lee, B. S., Kim, H. G., Lee, W. J., Lee, J. H., ... & Kim, J. Y. (2015). The effects of alcohol on quality of sleep. *Korean Journal of Family Medicine*, 36(6), 294. <https://dx.doi.org/10.4082%2Fkjfm.2015.36.6.294>

Rasch, B., & Born, J. (2013). About sleep's role in memory. *Physiological Reviews*, 2013 Apr; 93(2): 681-766. <https://dx.doi.org/10.1152%2Fphysrev.00032.2012>

Ricci, J. A., Chee, E., Lorandeanu, A. L., & Berger, J. (2007). Fatigue in the US workforce: prevalence and implications for lost productive work time. *Journal of Occupational and Environmental Medicine*, 49(1), 1-10. doi: 10.1097/01.jom.0000249782.60321.2a. PMID: 17215708.

Roehrs, T., & Roth, T. (2001). Sleep, sleepiness, and alcohol use. *Alcohol Research & Health*, 25(2), 101. <http://www.ncbi.nlm.nih.gov/pmc/articles/pmc6707127/>

Smith, J. (2016). “7 bedtime rituals that are hard to adopt, but will pay off forever.” *Business Insider*. <https://www.businessinsider.com/bedtime-rituals-will-pay-off-forever-2016-8?r=US&IR=T/#disconnect-from-work-1>

Smith, J., & Gillett, R. (2016). “13 things successful people do right before bed.” *Insider*. <https://www.insider.com/what-successful-people-do-before-bed-2016-6>

Sonnentag, S., & Bayer, U.-V. (2005). Switching off mentally: Predictors and consequences of psychological detachment from work during off-job time. *Journal of Occupational Health Psychology*, 10, 393 – 414. <https://doi.org/10.1037/1076-8998.10.4.393>

Sonnentag, S., Binnewies, C., & Mojza, E. J. (2008). “Did you have a nice evening?” A day-level study on recovery experiences, sleep, and affect. *Journal of Applied Psychology*, 93, 674–684. doi: 10.1037/0021-9010.93.3.674. PMID: 18457495.

Takahashi, M., Nakata, A., Haratani, T., Ogawa, Y., & Arito, H. (2004). Post-lunch nap as a worksite intervention to promote alertness on the job. *Ergonomics*, 47(9), 1003-1013. doi: 10.1080/00140130410001686320. PMID: 15204275.

Thomas, M. (2021). “After hours emails are worse than you think.” *Forbes*. <https://www.forbes.com/sites/maurathomas/2021/07/26/after-hours-emails-are-worse-than-you-think/?sh=6daae696420a>

Wang, J. (2021). “Portugal makes it illegal for bosses to email, call or text after hours, and Australia could be next.” *news.com.au*. <https://www.news.com.au/finance/work/at-work/portugal-makes-it-illegal-for-bosses-to-email-call-or-text-after-hours-and-australia-could-be-next/news-story/318819d4b978fd30de317f70ae536ad7>

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