

EDUCATION BULLETIN Original release: April 17, 2020 Updated: March 15, 2022

## SLEEP STRATEGIES: HELPING PHYSICIANS DURING CHALLENGING OR BUSY TIMES

### Content Attribution

We have reviewed, synthesized, adapted, and added to information from the following sources. Please consult these sources if you want more information.

- [The Effects of a 20-Min Nap Before Post-Lunch Dip](#)
- [Alertness Management: Strategic Naps in Operational Settings](#)
- [Sustained Operations and Military Performance](#)
- [Full reference list of sleep-related publications](#)

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### How May Our Sleep Be Impacted during Challenging or Busy Times?

We are likely to experience two common sleep disturbances:

- **Insomnia**, which refers to difficulty falling and/or staying asleep, can be common due to stress or mental rumination. Insomnia can lead to insufficient quantity of sleep.
- **Sleep deprivation**, which refers to the loss or restriction of sleep not due to difficulty falling and/or staying asleep, can be common as a result of long work hours.

### What Are the Impacts of Sleep Disturbances?

Sleep disturbances can lead to negative impacts such as irritability, reduced cognitive function such as poor concentration and memory, fatigue, increased appetite for high calorie foods, poorer work performance, depression, and chronic conditions such as cardiovascular disease or diabetes. Also, physicians with sleep disturbance are at risk for indiscriminate use of sedatives and stimulants. This may be facilitated in part by the inappropriate practice of prescribing medications to colleagues informally without following appropriate standards of practice. The CPSA expects physicians to formally record and retain the record of the prescribing encounter, therefore documentation is part of prescribing.

## How Much Sleep Do We Need and When Should We Get It?

We are all different. You wouldn't try to manage a patient's asthma without an understanding of how the lungs work, so don't try to manage your sleep without knowing your own sleep basics. However, most people require 7-8 hours of sleep per day. Ideally, this is most effective when aligned with our natural circadian rhythm. For most of us, the lowest point in our circadian rhythm occurs between 3:00-6:00 a.m. and again between 1:00-3:00 p.m. Keep in mind that you may not be the best judge of your own fatigue. For example, research shows that only about half of people correctly identified if they were about to fall asleep when sleep deprived.

Regardless of how much sleep you require, always try to get a core chunk of sleep each night. Even as little as 3 hours of sleep per 24-hour period helps to maintain some performance effectiveness over 9-10 days, whereas 1.5 hours per night is shown to lead to ineffectiveness after 6 days in studies of infantry groups. Anchoring a chunk of 3-4 hours of sleep at the same time every night and ensuring nights of recovery sleep after deprivation is also shown to be important.

Strategic napping can also help compensate for sleep disturbances. Under significant crisis and stress, there is often a propensity to focus on other relaxing, coping, or distracting things when down time occurs. However, evidence shows that one should nap, rest, and sleep when feasible to preserve performance for as long as possible. Even a 30-minute nap in a 24-hour sleep deprivation experiment reduced the rate of cognitive decline significantly.

## What Are Some Sleep Strategies We Can Implement?

- **Figure out how much sleep you need per week and use that as a goal.** If you need 7 hours a night (49 hours per week), try to get 45-50 hours of sleep a week. Use strategic napping to make up the difference.
- **Nap when possible.** Try to take short 20-30 minute naps and allow for a 5-20 minute recovery period afterward to combat sleep inertia. If you're working shifts, try to schedule naps 1-2 hours before and during your shift, ideally at a time where circadian rhythm would facilitate sleep. While naps can be helpful, avoid napping too close to bedtime as it can disrupt sleep quality.
- **Optimize sleeping arrangements when possible.** It is best to think of an optimal sleeping environment as a cave. Quiet, darkness, a comfortable posture, and a sleep-promoting temperature (average of about 15-19 degrees) can facilitate better sleep. White noise machines, ear plugs, or a sleep mask can help block out external factors that disrupt sleep. For waking, bright light exposure, particularly outdoor daylight, helps to promote wakefulness and to regular the sleep-wake cycle.

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- **Develop a strong connection between your bed and sleep.** If you can't fall asleep within 20-30 minutes, get out of bed and engage in a calming activity in dim light. Avoid the use of cell phones or computer monitors as the light can interfere with your ability to get to sleep. Return back to bed when you feel drowsy OR after 30 minutes have passed. You can't force sleep and engaging in a calming activity is more restorative than tossing and turning in bed with frustration.
- **Establish a pre-bedtime routine and schedule.** Take some time to unwind before going to bed. Begin dim light exposure and engage in calming activities such as mindful breathing that help to reduce cognitive and physical arousal. Use scheduling to help ensure you get as much sleep as possible, keeping in mind that we often incorrectly identify our own fatigue.
- **Try to reduce worrisome thoughts.** Schedule "worry time" each day to journal or write down your worries. Cross off those you don't have control over. Engage in problem-solving for those that remain on the list and write down options for how to manage them. Limit the amount of time you spend consuming media or thinking about stressors, particularly close to bedtime. Consider the use of mindfulness practices (e.g., focus on what you see, hear, smell, taste, and feel), mindful breathing (e.g., inhale for a count of 4, hold for a count of 2, exhale for a count of 4, hold for a count of 2), and relaxation apps (e.g., Calm, Headspace, Insight Timer, etc.) to help quiet your mind.
- **Tactically use caffeine.** Low to moderate doses of caffeine can help to temporarily boost alertness by blocking adenosine reception. Be aware that it usually takes 20-30 minutes to enter your system. Reserve caffeine for when you need it most to help prevent tolerance and avoid consuming it too close to bedtime as it can disrupt sleep quality. Caffeine consumption after a nap, however, may help to reduce sleep inertia.
- **Eat well and stay hydrated.** Stable blood sugar helps maintain energy. Take time to eat healthy balanced meals and have low glycemic index foods or low-fat high protein snacks such as nuts, cottage cheese, hard boiled eggs, or certain fruits (e.g., oranges, apples, grapes). Avoid sugar-rich foods and avoid eating too close to bedtime to avoid insomnia.
- **Stay physically active.** Walk around and stretch. Make time for exercise you enjoy. Think of activities that can quickly get your blood pumping such as jumping jacks or skipping rope.
- **Avoid over the counter and prescription stimulants and sedatives unless prescribed by your family physician.** Although the use of stimulants and sedatives is often considered during a time of stress and sleep deprivation, this is strongly discouraged without medical supervision and follow up. This allows consideration of suitability of prescription, review of co-morbid conditions, behavioral interventions for long-term management of sleep problems, as well as monitoring to mitigate adverse effects and the risk of long-term medication dependency. A referral to a sleep specialist with experience with these medications may also be considered.
- **Look out for one another and utilize a team approach to ensure safety.** Fatigue management may require a team approach. Look out for your colleagues and encourage rest and nap breaks when needed. Engage your family in supporting your sleep. Think about practical supports to ensure safety when tired, both while working and during your commute.