

Fatigue Risk Management

Sleep

Not only is sleep a priority, it's a **necessity!** Adequate, quality sleep plays an important function in our overall health by contributing to our attentiveness, decision-making, and ability to perform our jobs safely and successfully. Without adequate sleep, we can compromise our safety and the safety of our patients and community.

When we sleep, we cycle through 3 main sleep phases:



1. Light sleep, which is around 55% of our sleep time
2. Deep sleep, which is around 20% of our sleep time
3. Dreaming sleep, which is the remaining 25% of our sleep time

To help you determine your sleep needs, try these simple steps:

Sleep is not wasted time but a critical aspect of wellness.

Research shows a clear relationship between poor quality sleep and disruptions to our immune, inflammatory, and cardiovascular systems. People with prolonged bouts of inadequate sleep are at greater risk for adverse health conditions, including Type 2 diabetes, gastrointestinal disorders and even some cancers.

Sleep allows us to learn and consolidate information to help us take on the challenges of our day.

We will cycle through these phases, switching from light to deep, back to light, transitioning into dreaming, and finally wrapping up with light sleep. One full sleep cycle takes between 90 to 110 minutes, and we will repeat this pattern around 4 to 5 times each time we sleep!

Each phase plays a critical role in our lives: light and deep sleep are integral in solidifying memories, while dreaming sleep helps you download and process emotions, while offloading unwanted or unnecessary information. To experience the full benefits of sleep, an entire sleep cycle should be completed. If you've ever woken up from a nap feeling groggy (sleep inertia), you've likely experienced waking from the deep sleep phase (meaning you haven't completed a full cycle), which can affect your work performance and overall wellbeing.

So, how much sleep do I need?

We all have our unique sleep needs, but the general guideline for adults is between seven and nine hours of sleep each day.

1. Don't set an alarm
2. Fall asleep and wake up naturally
3. Keep a journal or notes of how long you've slept and how you feel
4. Take an average of the hours of sleep over 3 to 4 days – this is the amount of sleep you should aim for each day



I'm on call – how can I combat fatigue?

It's important to recognize that you will not get adequate sleep on call, but there are some steps you can take to increase alertness and minimize fatigue:

- Honour your sleep needs when not working – try to get your required amount of sleep when you aren't on call to help minimize your sleep debt, either through one full sleep block or by taking naps before your shift.
- Try to work in bright light – this can help delay melatonin production to prevent you from feeling like you need to catch some Zs.
- Have that cup of coffee (or tea!) – caffeine can help temporarily increase alertness, especially during our typical drop in alertness between 0200-0600 hours.

Sleep takes practice and routine!

As physicians, our schedules fluctuate considerably, but it's in our best interest to set as much routine for sleep as we can. Here are few tips for developing a positive sleep routine:

Set a consistent wake-up time: Try to set an alarm each day and commit to getting up when that alarm goes off (no more hitting that snooze button!). Improve your alertness during the day by getting lots of light exposure – this will also help your body produce melatonin to help you fall asleep at night.

Set a consistent bedtime: This can be tough with our schedules but keeping a consistent bedtime for most of our days when not at work can help improve sleep. Start with the number of hours of sleep you need per night, add 30 minutes to this time to allow for "wind down" time and set an alarm for each evening. E.g., If you know you need 8 hours of sleep, aim for 8 hours and 30 minutes in bed. Put devices on silent or do not disturb so that you aren't disrupted during this sleep window!

Use technology! (in a smart way): We have access to a plethora of tracking devices – use them to your advantage! Try wearing your wearable technology at night to track movement while you're in bed and if available, review sleep reports on your device the following day to determine your quality of sleep. Don't check your phone or watch TV in the bedroom; this can significantly disrupt sleep initiation. If using technology in the evening, employ blue light reduction strategies through computer settings, filters, or glasses.

Adequate Nourishment: It's important to ensure you're eating consistent meals (not just for sleep!), which will help prevent sleep disruption from hunger/overeating.

Say no to that late-night coffee, cocktail, or vape/cigarette: Having caffeine, alcohol, or nicotine within 4 hours of our bedtime will diminish sleep quality as they all contribute to disturbed sleep and feeling unrested the next day.

Set the mood: When possible, try to have a cool, dark, quiet environment for sleeping. You can do this by having blackout blinds or an eye mask, utilizing earplugs, and adjusting the temperature of your space. When on-call and sleeping at the hospital, bring what you can to create as comfortable of an environment as you can. Things like sleep masks, earplugs, and using the call room 'do not disturb' signs can help you create a better environment to get some rest. It's important to acknowledge that you likely will not get adequate sleep while on call, which can lead to an increased feeling of fatigue when post-call – try to get back into your regular sleep routine on post-call days.

Regular exercise will help you to sleep well, stay healthy, and feel fit. An activity that keeps your heart rate elevated for 20 minutes is ideal but avoid heavy exercise one hour before bedtime. Let your body calm down and unwind before sleep.

How can my sleep affect my relationships?



Working varying shifts, long hours, and overnight call can leave you feeling socially isolated and take a toll on your family life. You may feel tempted to choose family or social time over adequate rest when your shift is finished; however, this will do more harm than good as you put yourself and others at risk, and you aren't yourself when you're overly fatigued! Finding that balance is an ongoing challenge for healthcare workers as they progress through their careers and life changes. Take opportunities to review your work schedule with colleagues and leadership to identify ways to reduce fatigue and improve your and your team's quality of life.

Your friends and family can be part of your plans to combat fatigue. Share resources with them and explain the importance of getting rest to be the best version of yourself when you are with them. Involve them in developing your routine and share your schedule with them. Involving your family and friends in your schedule and how you're feeling can keep you connected and create a better understanding of each other's needs to keep your relationships positive and strong! Research shows that as we persist in a sleep-deprived state, we lose the capacity to acknowledge our fatigue-related deficits. Listen to your family, friends, and colleagues around you when they say you need rest; they have your best interest at heart.

I've tried it all and still can't sleep – now what?

We know sleep is important to our performance and overall wellbeing. However, if you've tried all of these tips and find you're still unable to achieve good quality sleep, it's best to reach out to a medical professional to rule out any sleep disorders.



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