

# What Happens When You Don't Sleep Enough: A Nurse Explains

By Robyn Warnell, BSN, RN

Getting rest when you're in the hospital is a myth. Staff need to monitor you: sometimes you need medications, and other times you need labs drawn or additional treatments. I've experienced both sides of what I affectionately call hospital-induced sleep deprivation – as the nurse causing it and as a daughter on the receiving end while caring for my parents. It's exhausting. Insufficient sleep affects your brain, mental health, heart, immune system, weight, and more.

Of course, inadequate sleep doesn't only occur in hospitals. The National Sleep Foundation reports that 6 out of 10 adults aren't getting enough sleep. The CDC recommends that adults get at least 7 hours of sleep per night. And one-third of U.S. adults are missing that mark. Chronically disrupted sleep quietly wrecks nearly every system in your body. Let's discuss what exactly happens to your body when you don't get enough sleep. By the end of this article, you'll understand how your lack of sleep can impact you and get some tips and tricks for better rest.

## How Does Sleep Deprivation Affect Your Brain?

Scientists have learned that lack of sleep physically damages the fatty insulation around nerve cells (myelin). Myelin enables fast brain signaling. So damaged myelin equals slower brain function. In fact, a study found that sleep loss in rats delayed nerve conduction speed by about 33%. That cup of coffee might help you *feel* like you're alert. But your brain is struggling.

When you're sleep deprived, your brain is constantly trying to catch up. Another study found that when you 'space out' due to lack of rest, that's your brain flushing your cerebrospinal fluid. This type of maintenance normally happens during sleep. Translation: your brain is literally trying to catch up on sleep in microbursts while you're awake. You know those moments when you can't find your glasses, and they're on top of your head? Or you can't find your phone, and it's in your hand? That's your brain on poor sleep.

## Can Restricted Sleep Affect Your Mental Health?

Insufficient sleep is closely linked to depression, anxiety, and mood dysregulation. It creates a vicious cycle: not getting enough rest increases the risk of mental health issues, and those issues further disrupt sleep.

Ask any nurse, and they'll tell you that the longer patients are in the hospital, the grumpier they get. It makes sense. Not getting enough sleep is associated with increased anxiety and heightened emotional reactivity. Even a short stretch of poor sleep can worsen anxiety. I think we can all recognize that we're more anxious and on edge when we don't get enough sleep.

Getting quality sleep is essential for protecting your mental health, as insomnia is a strong predictor of future depression. When you don't get enough sleep, your ability to regulate your mood is impaired, increasing the likelihood of experiencing negative emotions. In other words, the better you sleep, the better you feel.

## How Does Sleep Deprivation Affect Your Heart?

If you're not sleeping enough or if your sleep quality is poor, your heart isn't getting the rest it needs. It's just pumping away under constant pressure all night. Conversely, when you get enough sleep, your blood pressure drops by about 10-20%. That nightly rest gives your heart a break after working hard all day. One study found that chronic short sleep patterns increased the risk of heart failure and coronary artery disease, even in young, healthy people. The American College of Cardiology states that insufficient sleep heightens the risk of coronary heart disease by 45%.

And that coffee or energy drink you're using to help you get through the day? It's also keeping your blood pressure up while you sleep, worsening the effects on your heart. In its *"Life Essential 8"* checklist, the American Heart Association included sleep alongside diet, exercise, and blood pressure. Bottom line: better sleep means a healthier heart.

## Can Lack of Sleep Make You Sick?

Disrupted sleep triggers chronic low-grade inflammation by increasing inflammatory signals. Additionally, sleep loss can decrease the activity of natural killer cells, which fight infections and cancer. So, skipping sleep puts your immune system on high alert, and not in a positive way. Think redness, swelling, and internal stress, even when it's not visible. Over time, this can lead to heart disease, diabetes, and even Alzheimer's.

Sleep is like wirelessly charging your immune system. While you sleep, your body performs maintenance on your immune system's defenses. Sleep-deprived people are more vulnerable to colds and respiratory infections. They also respond less effectively to vaccines.

Harm from ongoing sleep loss can increase your risk of developing chronic diseases and may lead to other health issues like cancer. Fortunately, this damage is not permanent. Researchers kept five healthy people awake for 24 hours and noticed a significant spike in immune response. Once normal sleep resumed, the immune markers returned to baseline levels. So, the effects of poor sleep on your immune system can be reversible once you start getting longer and higher-quality sleep again.

## Does Sleep Deprivation Impact My Weight?

Chronic poor sleep increases calorie intake, disrupts appetite hormones, and lowers insulin sensitivity. This creates a metabolic environment that promotes weight gain. A meta-analysis published in the *European Journal of Clinical Nutrition* reports that people who were sleep deprived consumed an average of 385 more calories per day. Another study found that insufficient sleep interferes with the regulation of appetite hormones. After one night of poor sleep, hunger hormones rose while fullness hormones fell. As a result, study participants were not only hungrier but also less able to recognize when they were full. Sleep loss also decreases insulin sensitivity.

When it comes to managing our weight, sleep is often overlooked. Whether your goal is weight loss or becoming your healthiest self, sleep plays a vital role. Watching what you eat, exercising, and managing stress all make a significant difference. Getting enough sleep enhances your efforts to manage weight. Adequate rest is especially important if you're considering GLP-1 medications for weight loss. Prioritizing enough sleep is one of the simplest ways to support a healthy weight.

## What Would a Nurse tell You About Getting Better Sleep?

The CDC recommends that adults get at least 7 hours of sleep per night. Emphasis on *at least* 7 hours per night. Here are some tips and tricks from the CDC and National Sleep Foundation. As a nurse who's struggled with sleep in the past, I've sprinkled in a little extra for you:

- **Timing Matters.** Go to bed and wake up at the same time every day, even on weekends or days off. This can be tough initially, but it works. I'm much more productive on days off since adopting this rule.
- **Make your bedroom dark, cool, and quiet.** Blackout curtains will block light, and white noise helps, too.

- No screens for at least 30 minutes before bed. Blue light suppresses your sleep hormones. I prefer no screens for at least 1 hour. No screens not an option? Try blue light-blocking glasses.
- Keep caffeine intake at less than 300 mg per day. Per 8-oz serving, coffee has about 95 mg of caffeine, tea has about 50 mg, and cola has about 35 mg. Avoid caffeine for at least 4 to 6 hours before bed. You may need longer if you're more sensitive to caffeine like me.
- Avoid alcohol and large meals too close to bedtime. While some people use alcohol to help them fall asleep, they will generally have reduced sleep quality. If you eat too much before bed, your body is still actively digesting that food when it should be resting.

Talk to a healthcare provider if you've tried these things and are still consistently unable to sleep. Sleep disorders like sleep apnea are common and treatable. Sleep isn't a luxury you earn. Sleep is the foundation on which everything else depends.

## Key Takeaways:

- Adults need at least 7 hours of sleep per night, and 6 out of 10 Americans aren't getting it.
- In animal studies, sleep deprivation delayed brain nerve signaling by 33%.
- Insomnia is a strong predictor of future depression, and even short periods of poor sleep can increase anxiety and impair mood regulation.
- Chronic short sleep is associated with a 45% increased risk of coronary heart disease, even if you're young and healthy.
- One night of sleep loss can compromise your immune system.
- Sleep loss affects hunger hormones, leading to increased appetite and stronger cravings for high-calorie foods.
- Sleep is the foundation of your heart, brain, immune system, and metabolism. It's not optional, it's necessary.

**This content is for informational purposes only and does not replace professional medical advice. Always consult your healthcare provider before starting any new medication or making lifestyle changes.**

## Author Bio

Robyn Warnell, BSN, RN, ONC, is a registered nurse with over 21 years of clinical experience spanning orthopedics, oncology, med-surg nursing, urgent care, and more. She writes evidence-based health content designed to make complex medical topics accessible and trustworthy.

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