

# Want a Good Night's Sleep? Optimize Your Sleep Routine and Sanctuary

Written by [Dr. Joseph Mercola](#)

## STORY AT-A-GLANCE

- Getting eight hours of high-quality sleep per night is one of the cornerstones of health
- Sleep deprivation is extremely common and can weaken your immune system, accelerate tumor growth, accelerate diabetes and impair all aspects of your cognition; lack of sleep can increase your risk of dying from all causes
- Optimizing your sleep sanctuary is part of exercising good sleep hygiene; several ways of doing this are discussed
- What you do in preparation for bed is also very important, and numerous suggestions are discussed
- To improve your sleep, you may need to modify some of your lifestyle choices, including diet and exercise

## 30 Tips in 30 Days Designed to Help You Take Control of Your Health

This article is included in Dr. Mercola's All-Time Top 30 Health Tips series. Every day during the month of January, a new tip will be added that will help you take control of your health.

Sleep is one of the great mysteries of life. For a long time, it was widely thought that sleep was little more than a waste of time. Modern research, however, has shed much-needed light on the matter, showing sleep is a crucial component of a healthy lifestyle, and that lack of sleep can have far-reaching consequences, affecting everything from mood, creativity and brain detoxification<sup>1,2,3,4,5</sup> to DNA expression, chronic disease risk — including dementia<sup>6,7,8</sup> — and longevity.

One of the most radical and recent discoveries revealing the importance of sleep for health is that each and every organ, indeed each cell, has its own biological clock. The 2017 Nobel Prize in Physiology or Medicine was actually awarded for the discovery of these **cellular clocks**, all of which work in tandem to control and maintain biological homeostasis, regulating everything from metabolism to psychological functioning.

In your brain is a "master clock" that synchronizes these clocks and your bodily functions to match the 24-hour light and dark cycle.

When you upset your circadian rhythm by not getting enough sleep, the results cascade through your system, raising blood pressure, dysregulating hunger hormones and blood

sugar, increasing the expression of genes associated with inflammation, immune excitability, diabetes, cancer risk and stress<sup>9</sup> and much more.

Sleep deprivation also slows your reaction time, increasing your risk of accidents. Getting less than six hours of sleep leaves you cognitively impaired. In 2013, drowsy drivers caused 72,000 car accidents in which 800 Americans were killed and 44,000 were injured.<sup>10</sup> This is more than died from those texting and drunk drivers combined. Even a single night of sleeping only four to six hours can impact your ability to think clearly the next day.

## Ideal Sleep Duration for Optimal Health

According to a scientific review of more than 300 studies published between 2004 and 2014 to ascertain how many hours of sleep most people need to maintain their health, a panel of experts came up with the following recommendations.

Age Group	Hours of sleep needed for health
Newborns (0 to 3 months)	14 to 17 hours
Infants (4 to 11 months)	12 to 15 hours
Toddlers (1 to 2 years)	11 to 14 hours
Preschoolers (3 to 5)	10 to 13 hours
School-age children (6 to 13)	9 to 11 hours
Teenagers (14 to 17)	8 to 10 hours
Adults (18 to 64)	7 to 9 hours
Seniors (65 and older)	7 to 8 hours

## Sleep Deprivation Takes a Toll on Your Health

In truth, few (if any) facets of your biology are unaffected when you skimp on sleep, as the list of health effects linked to poor sleep or lack of sleep keeps growing with each passing year. For example, poor or insufficient sleep have been linked to:

**Impaired memory and reduced ability to learn new things<sup>11</sup>** — Due to your hippocampus shutting down, you will experience a 40 percent deficit in your brain with respect to its ability to make new memories when you're **sleep deprived**.

**Reduced ability to perform tasks, resulting in reduced productivity at work and poor grades in school.**

**Reduced athletic performance.**

**Reduced creativity at work or in other activities.**

**Slowed reaction time, increasing your risk of accidents on the road and at work** — Getting less than six hours of sleep leaves you cognitively impaired. In 2013, drowsy drivers caused 72,000 car accidents in which 800 Americans were killed and 44,000 were injured.<sup>12</sup> This is more than died from those texting and drunk drivers combined. Even a single night of sleeping only four to six hours can impact your ability to think clearly the next day.

**Increased risk of neurological problems, ranging from depression to dementia and Alzheimer's disease<sup>13</sup>** — Your blood-brain barrier becomes more permeable with age, allowing more toxins to enter.<sup>14</sup> This, in conjunction with reduced efficiency of the glymphatic system due to lack of sleep, allows for more rapid damage to occur in your brain and this deterioration is thought to play a significant role in the development of **Alzheimer's**.

**Increased risk of Type 2 diabetes** — In one study,<sup>15</sup> "excessive daytime sleepiness" increased the risk of **Type 2 diabetes** by 56 percent.

**Weakened immune function** — Research<sup>16</sup> suggests deep sleep strengthens immunological memories of previously encountered pathogens. In this way, your immune system is able to mount a much faster and more effective response when an antigen is encountered a second time.

**Increased risk of obesity** — By causing a prediabetic state, lack of sleep increases feelings of hunger, even if you've already eaten, which can wreak havoc on your weight.

**Increased risk of cancer** — Tumors grow two to three times faster in laboratory animals with severe sleep dysfunctions. The primary mechanism thought to be responsible for this effect is disrupted **melatonin** production, a hormone with both antioxidant and anticancer activity.

Melatonin both inhibits the proliferation of cancer cells and triggers cancer cell apoptosis (self-destruction). It also interferes with the new blood supply tumors require for their rapid growth (angiogenesis).

**Increased risk of high blood pressure, heart attacks and cardiovascular disease** — As noted by professor Matthew Walker, Ph.D., founder and director of the University of California Berkeley's Center for Human Sleep Science and author of the book "**Why We Sleep: The New Science of Sleep and Dreams**:"  
*"In the spring when we lose one hour of sleep, we see a subsequent 24 percent increase in heart attacks. In the fall, when we gain one hour of sleep, we see a 21 percent decrease in heart attacks. That is how fragile your body is with even the smallest perturbations of sleep..."*

In his book, Walker also cites Japanese research showing male workers who average six hours of sleep per night or

less are 400 to 500 percent more likely to suffer one or more cardiac arrests than those getting more than six hours of sleep each night.

Other research has demonstrated that women who get less than four hours of shut-eye per night double their risk of dying from **heart disease**.<sup>17</sup> In another study,<sup>18</sup> adults who slept less than five hours a night had 50 percent more coronary calcium, a sign of oncoming heart disease, than those who regularly got seven hours.

**Increased risk of osteoporosis.**

**Increased risk of pain and pain-related conditions such as fibromyalgia** — In one study, poor or insufficient sleep was the strongest predictor for pain in adults over 50.<sup>19</sup>

**Increased susceptibility to stomach ulcers.**

**Impaired sexual function.**<sup>20</sup>

**Impaired regulation of emotions and emotional perception** — Your amygdala, one of your brain's centerpiece regions for generating strong emotional reactions, including negative ones, becomes about 60 percent more reactive than usual when you've slept poorly or insufficiently, resulting in increased emotional intensity and volatility.

**Increased risk of depression and anxiety (including post-traumatic stress disorder), schizophrenia and suicide** — In fact, sleep problems are defining factors in diagnosing psychiatric disorders, and are one of the diagnostic criteria listed in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders.<sup>21</sup>

**Premature aging** by interfering with growth hormone production, normally released by your pituitary gland during deep sleep.

**Increased risk of dying from any cause**<sup>22</sup> — Sleep deprivation prematurely ages you by interfering with your growth hormone production, normally released by your pituitary gland during deep sleep. Compared to people without insomnia, the adjusted hazard ratio for all-cause mortality among those with chronic insomnia was 300 percent higher.

## How Cycles of Light and Darkness Affect Your Sleep (and Health)

### [Download Interview Transcript](#)

Maintaining a natural rhythm of exposure to daylight, and darkness at night, is an essential component of sleeping well. As mentioned earlier, the reason light is so important is because it serves as the major synchronizer of the master clock in your brain — the suprachiasmatic nuclei (SCN).

Most people in Western societies spend the larger portion of each day indoors, which essentially puts you in a state of "light deficiency," as the light indoors is about two orders of magnitude lower, in terms of light intensity, than outdoor light.

To maintain healthy master clock timing, it's important to get bright light exposure during the day. Many indoor environments simply aren't intense enough to anchor your circadian rhythm. The first 30 to 60 minutes of outdoor light exposure during the morning or mid-day creates about 80 percent of the anchoring effect.

This means that just going outside for half an hour at lunch time can provide you with the majority of anchoring light you need to maintain a healthy circadian rhythm. Exposure to early morning sunlight can be another important anchor for circadian rhythm syncing.

On the opposite end, you need to avoid bright artificial lighting after sunset, as light will impair your melatonin production. Somewhere between 50-1,000 lux is the activation range within which light will begin to suppress melatonin production.

One 2011 study<sup>23</sup> compared daily melatonin profiles in individuals living in room light (<200 lux) versus dim light (<3 lux). Results showed that, compared with dim light, exposure to room light before bedtime suppressed melatonin in 99 percent of individuals, and shortened the time period when the body has an elevated melatonin level by about 90 minutes.

Furthermore, exposure to room light during the usual hours of sleep suppressed melatonin by more than 50 percent. So, after sunset, dim the lights and use incandescent light bulbs, not LEDs or fluorescents. Red and amber wavelengths will interfere least with your melatonin production, while blue and green wavelengths interfere the most.

To learn more about how light influences your circadian rhythms, listen to my interview with Dan Pardi (above), a researcher who works with the Behavioral Sciences Department at Stanford University and the Departments of Neurology and Endocrinology at Leiden University in the Netherlands.

## **Sleep Debt Has Cumulative Effect**

Lost sleep is lost forever, and persistent lack of sleep has a cumulative effect when it comes to disrupting your health. The good news is there are many natural techniques you can learn to restore your sleep health.

Whether you have difficulty falling asleep, waking up too often, or feeling inadequately rested when you wake up in the morning — or maybe you simply want to improve the quality of your sleep — you are bound to find some relief from my tips and tricks below.

**\*\*If you are interested in more information about sleep or any of the 33 items listed, I invite you to delve into the links that follow, which are grouped by subject.**

## **7 Ways to Optimize Your Sleep Sanctuary**

1. **Sleep in complete darkness, or as close to it as possible** — Even the tiniest bit of light in the room, such as
2. that from a clock radio LCD screen, can disrupt your internal clock and your production of melatonin and serotonin,
3. thereby interfering with your sleep (and raising your risk of cancer).

So, close your bedroom door, get rid of night-lights, cover any LCD screens and your windows. I recommend using blackout shades or drapes. A far less expensive alternative is to use a well-fitting sleep mask. Instead of a lighted alarm clock, I use a **talking alarm clock**, designed for the visually impaired, that audibly tells me the time by pressing a large button.

Also refrain from turning on any light at all during the night, even when getting up to go to the bathroom. If you absolutely have to have some sort of night light, use a red bulb.

**2. Keep the temperature in your bedroom no higher than 70 degrees F.** — Studies show the optimal room temperature for sleep is between 60 to 68 degrees F. Keeping your room cooler or hotter can lead to restless sleep. When you sleep, your body's internal temperature drops to its lowest level, generally about four hours after you fall asleep.

Scientists believe a cooler bedroom may therefore be most conducive to sleep, since it mimics your body's natural temperature drop. If you don't want to crank down the temperature on your air conditioning, sleeping naked may do the trick.

One of the established benefits of sleeping in the buff is improved sleep quality, in part by preventing overheating. One study showed a surface skin temperature difference of as little as 0.08 degrees F (or 0.4 degrees C) led to sounder sleep.<sup>24,25,26</sup> Studies have also found sleeping in the nude has several other health benefits, including improved metabolism and blood circulation.

4. **Eliminate electric and electromagnetic fields (EMFs) in your bedroom** — These can disrupt your pineal
5. gland's production of melatonin and serotonin, and are a significant contributor to mitochondrial damage and dysfunction, which is at the heart of virtually all chronic disease.

EMF exposure has also been linked to neuronal changes that affect memory and your ability to learn.<sup>27</sup> EMFs harm

your body's mitochondria by producing excessive oxidative damage, so sleeping in EMFs all night, every night, can cause or contribute to virtually any chronic ailment, including premature aging

Ideally, shut down the electricity to your bedroom by pulling your circuit breaker before bed. If you have neighbors on the other side of the wall, floor or ceiling, consider installing a Faraday cage (copper- and/or silver-threaded fabric) around your bed. If you live in a high-rise and have neighbors beneath you, place the Faraday fabric on the floor beneath your bed as well. This may significantly improve your sleep quality.

Another really important step is to turn off your Wi-Fi at night. It would be best to hard wire your home so you have no Wi-Fi 24/7 in your home, but I realize many are unwilling or unable to take this step. It's important to realize that the Wi-Fi in your home is nearly always more of a danger to you than what's coming from outside your home.

You can confirm this by measuring the microwave signals with a meter, and see what your exposure is. The fact is, you don't need Wi-Fi while sleeping, so this is a wholly unnecessary exposure that is easily remedied by turning it off.

**4. Move alarm clocks and other electrical devices away from your bed, and avoid using loud alarm clocks** — If these devices must be used, keep them as far away from your bed as possible, preferably at least 3 feet. Keep your cellphone as far away from your bedroom as possible if it must be on. If you keep it in your bedroom, either shut it down or put it in airplane mode.

Also consider your chosen method of being awakened. It is very stressful on your body to be suddenly jolted awake. If you are regularly getting enough sleep, an alarm may actually be unnecessary, but gentler alternatives include a sun alarm clock, which wakes you up by gradually increasing the intensity of light, thereby simulating sunrise. Or even better use a **battery powered alarm clock that talks** so there is no electricity or light.

**5. Adopt a neutral sleeping position** — If you're a side- or stomach sleeper and find yourself frequently tossing and turning at night and/or waking up with aches and pains, your sleeping position may be a primary culprit. In the video below, chiropractor and exercise physiologist Dr. Peter Martone discusses the benefits of adopting a **neutral sleeping position**. The key to achieving this is to prop a pillow under your neck, not your head, as this allows you to maintain a proper spinal curve.

For a demonstration on how to use your pillow to support your neck rather than simply elevating your head, please see the video. In Martone's experience, it takes an average of three to four months to convert from a side sleeper to a back sleeper, and even longer if you're used to sleeping on your stomach.

**6. Reserve your bed for sleeping** — If you are used to watching TV or doing work in bed, you may find it harder to relax and drift off to sleep, so avoid doing these activities in bed.

- 6. Consider separate bedrooms** — Studies suggest that, for many people, sharing a bed with a partner can significantly impair sleep, especially if the partner is a restless sleeper or snores. If bedfellows are consistently interfering with your sleep, you may want to consider a separate bedroom. Pets may also need to be banished if their presence impair your sleep.

## 16 Tips on How to Prepare for Bed and Ease Into Sleep

**8. Get to bed as early as possible, ideally between 9 and 10 p.m.** — Your body (particularly your adrenal system) does a majority of its recharging between the hours of 11 p.m. and 1 a.m. In addition, your gallbladder dumps toxins during this same period.

If you are awake, the toxins back up into your liver, which can further disrupt your health. Prior to the widespread use of electricity, people would go to bed shortly after sundown, as most animals do, and which nature intended for humans to do well.

**9. Maintain a consistent bedtime** — Go to bed and wake up at the same times each day, even on the weekends. This will help your body to get into a sleep rhythm and make it easier to fall asleep and get up in the morning.

**10. Establish a relaxing bedtime routine** — This could include meditation, deep breathing, using **aromatherapy** or essential oils or indulging in a massage from your partner. The key is to find something that makes you feel relaxed, then repeat it each night to help you release the tensions of the day.

**11. Avoid drinking fluids within two hours of going to bed** — This will reduce the likelihood of needing to get up and go to the bathroom, or at least minimize the frequency.

**12. Go to the bathroom right before bed** — This will reduce the chances that you'll wake up to go in the middle of the night.

**13. Avoid eating at least three hours before bedtime, particularly grains and sugars** — These will raise your blood sugar, delay sleep and raise your risk of acid reflux. Later, when blood sugar drops too low (hypoglycemia), you may wake up and be unable to fall back to sleep.

Aside from that, eating too close to bedtime can harm your health in other ways. If you consume more calories than your body can immediately use, there will be an excess of free electrons, which back up inside your mitochondria.

These electrons are highly reactive and start to leak out of the electron transport chain in the mitochondria. These excess electrons wind up prematurely killing the mitochondria, and then wreak further havoc by damaging your cell membranes and contributing to DNA mutations. There's compelling evidence to suggest this type of mitochondrial dysfunction is one of the keys to accelerated aging.

**14. Minimize use of electronics, both during the day and in the evening** — Electronic screens are major sleep thieves, robbing you of the ability to fall asleep quickly. Research has shown that the more time you spend on electronic devices during the day, and especially at night, the longer it takes to fall asleep and the less sleep you get overall.<sup>28,29</sup>

Teenagers who used electronic devices such as MP3 players, video games, tablets, smartphones and/or computers for more than five hours a day were 3.5 times more likely to get fewer than five hours of sleep per night. They were also 49 percent more likely to need more than an hour to actually fall asleep.

If you must use electronic screen devices late into the evening, install blue-blocking software. **Iris** is the absolute best one and I have used it for many years.

**15. Do some controlled breathing exercises** — Breathing is both an involuntary and a voluntary process. You can alter the speed and the depth of your breathing, and you can choose to breathe through your mouth or your nose. These choices lead to physical changes in your body. Slow, deep and steady breathing activates your parasympathetic response while rapid, shallow breathing activates your sympathetic response, involved in releasing cortisol and other stress hormones.

The combination of controlled breathing with counting can be particularly effective when your mind refuses to shut down at night, as it gives your mind something to focus on. One breathing exercise involving counting that you could try is the 4-7-8 breathing technique taught by Dr. Andrew Weil. It's a potent remedy for anxiety, as it acts as a natural tranquilizer for your nervous system.

**16. Take a hot bath or shower before bed** — When your body temperature is raised in the late evening, it will fall at bedtime, facilitating slumber. The temperature drop from getting out of the bath signals your body it's time for bed. It will also help if you finish your shower with a cold rinse.

Another alternative is to take a **sauna** followed by cold immersion in an unheated pool or shower, two to three hours before bed. This combination helps activate your parasympathetic nervous system to induce relaxation, allowing for sounder, deeper sleep.

**17. Wear socks to bed** — Feet often feel cold before the rest of the body because they have the poorest circulation. At least one study has shown that wearing socks to bed reduces night waking. As an alternative, you could place a hot water bottle near your feet at night.

**18. Wear an eye mask to block out light** — As discussed earlier, it is important to sleep in as close to complete darkness as possible. That said, it's not always easy to block out every stream of light using curtains, blinds or drapes, particularly if you live in an urban area (or if your spouse has a different schedule than you do). In these cases, an eye mask can be helpful.

**19. Put your work away at least one hour before bed (preferably two hours or more)** — This will give your mind a chance to unwind so you can go to sleep feeling calm, not hyped up or anxious about tomorrow's deadlines.

**20. Avoid watching TV right before bed** — Even better, get the TV out of the bedroom or even completely out of the house. It's too stimulating to the brain, preventing you from falling asleep quickly. TV disrupts your pineal gland function. If you do watch TV, be sure to use blue light-blocking glasses after sunset as this will help maximize melatonin production.

**21. Listen to relaxation CDs** — Some people find the sound of white noise or nature sounds, such as the ocean or forest, to be soothing for sleep. An excellent relaxation/meditation option to listen to before bed is the [Insight audio CD](#).

**22. Read something spiritual or uplifting** — This may help you relax. Don't read anything stimulating, such as a mystery or suspense novel, which has the opposite effect. In addition, if you are really enjoying a suspenseful book, you might be tempted to go on reading for hours, instead of going to sleep.

**23. Journaling** — If you often lie in bed with your mind racing, it might be helpful to keep a journal and write down your thoughts before bed.

## 8 Lifestyle Suggestions That Enhance Sleep

**24. Reduce or avoid as many drugs as possible** — Many drugs, both prescription and over-the-counter, may adversely affect sleep. In most cases, the condition causing the drugs to be taken in the first place can be addressed by following guidelines elsewhere on my web site.

**25. Avoid caffeine** — At least one study has shown that, in some people, caffeine is not metabolized efficiently, leaving you feeling its effects long after consumption. So, an afternoon cup of coffee or tea will keep some people from falling asleep at night. Be aware that some medications also contain caffeine (for example, diet pills).

**26. Avoid alcohol** — Although alcohol will make you drowsy, the effect is short lived and you will often wake up several hours later, unable to fall back to sleep. Alcohol will also keep you from entering the deeper stages of sleep, where your body does most of its healing.

**27. Exercise regularly, but not within three hours of bedtime** — Exercising for at least 30 minutes per day can improve your sleep. However, don't exercise too close to bedtime or it may keep you awake. Studies show exercising the morning is the best if you can manage it.

**28. Lose excess weight** — Being overweight can increase your risk of sleep apnea, which can seriously impair your sleep. Please refer to my [nutrition plan](#) for recommendations.

**29. Avoid foods you may be sensitive to** — This is particularly true for sugar, grains and pasteurized dairy. Sensitivity reactions can cause excess congestion, gastrointestinal upset, gas and other problems.

**30. Have your adrenals checked by a good natural medicine clinician** — Scientists have found that insomnia may be caused by adrenal stress. One of the best tests to assess adrenal function is the [DUTCH test](#).

**31. If you are menopausal or perimenopausal, get checked out by a good natural medicine physician** — The hormonal changes at this time may cause sleep problems if not properly addressed.

## Two Backup Strategies Should All Else Fail

### **32. My current favorite fix for insomnia is [Emotional Freedom Techniques \(EFT\)](#) —**

Most people can learn the basics of this gentle tapping technique in a few minutes. EFT can help balance your body's bioenergy system and resolve some of the emotional stresses that are contributing to your insomnia at a very deep level. The results are typically long lasting and improvement is remarkably rapid.

**33. Boost your melatonin** — Ideally it is best to increase levels naturally with exposure to bright sunlight in the daytime (along with full spectrum fluorescent bulbs in the winter) and absolute complete darkness at night.

If that isn't possible, you can boost your melatonin level using either 5-hydroxytryptophan (5-HTP) or a melatonin supplement. I personally take [sublingual melatonin](#) every night to help ensure that I have adequate levels. 5-HTP, the hydroxylated form of tryptophan, is first converted into serotonin before being converted into melatonin. In the video below, Dr. Lee Cowden discusses the benefits of this approach.

In one study, an amino acid preparation containing both GABA (a calming neurotransmitter) and 5-HTP reduced time to fall asleep, increased the duration of sleep and improved sleep quality.<sup>30</sup> If using straight melatonin, start with as little as 0.25 milligrams (mg) and work your way up in quarter-gram increments until you get the desired effect.

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