

# LIGHT EARLY IN THE DAY: AN IMPORTANT PART OF YOUR SLEEP ROUTINE

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How much do you think about the light that surrounds you? If you're like most people, the answer is *not much*. We tend to take the light around us for granted. Particularly in this modern age and in our culture, light is something always and instantly *there*. Of course, for most of human history that's not been the case. Only in the last century or so with the advent of widespread, affordable electricity has light been so readily and widely available.

Sleep—how much sleep we get and how well we sleep—is profoundly affected by light. Light exposure at the wrong time can interfere with sleep, keeping you alert and preventing your body from engaging in its natural progression toward sleep. On the other hand, exposure to light at the right time of day can actually help your sleep. Giving yourself exposure to light—particularly sunlight—in the morning and the early part of the day is one way to improve your alertness and energy during the day, and may help you to fall asleep at night.

It might seem surprising that actions you take early in the day—especially something as seemingly simple as taking some time in the morning sun—could affect your sleep so many hours later. As much as we may think of the time we spend asleep as separate and detached from our waking day, the truth is that our sleeping and waking lives aren't really separate at all. They are deeply connected, the two sides that create the full continuum of our daily lives. And there is constant interplay between the two. Think of some of the ways that your sleeping behavior can affect your waking day. A night of restless sleep can leave you sluggish and fatigued the next day. Trying

to sleep in a difficult environment—full of loud noises or bright lights—can make it difficult to fall asleep and stay asleep. On the other hand, getting to bed on time, and sleeping soundly throughout the night, can help you feel energized and refreshed the next day. Just as our sleeping lives can affect how we feel when we're awake, so too can the choices we make during our waking day influence our sleep at night.

**TIP: Morning sunlight can boost your daytime energy and your ability to fall asleep.**

Our exposure to light during the day is one critical way that we affect our sleep-wake cycles. That's because light exerts a controlling influence over the body's circadian rhythms. Exposure to light and to darkness drives the circadian system, which in turn helps to regulate sleep-wake cycles over the 24-hour day and night. Circadian regulation of sleep involves several physiological processes, including changes in body temperature and neurological function. Also under circadian influence are hormones that affect sleep and alertness.



This is one important way that exposure to light at night can interfere with sleep. When we remain in brightly lit environments well into the night, we may disrupt the timing of circadian signals to the body that it is time for rest. This is also a reason why morning exposure to light can be helpful. Light exposure early in the day can reinforce the body's natural circadian sleep-wake cycle.

There's scientific research that indicates the effects that light exposure has over the body's sleep-wake cycle. Research has also shown how early-in-the-day light exposure can help to stimulate alertness during the day. A recent study by scientists at Northwestern University and the University of Illinois at Urbana-Champaign investigated the effects of daylight exposure on the health of a group of office workers, including nighttime sleep and daytime activity levels. Among this group of office workers, those who received exposure to more daylight (through windows in their offices) slept an average of 46 minutes more per night during the workweek than their coworkers who did not have windows in their offices. The people exposed to more daylight in their offices also showed more energy/vitality during the day.

There's also some pretty interesting scientific research demonstrating what can happen when our sleep-wake schedules are aligned more closely with the solar night and day, and when we eliminate exposure to artificial light at night. Recently, scientists at the University of Colorado in Boulder sent a small group of men and women into the Rocky Mountains for 1 week of camping—a week designed to investigate the influence of exposure to natural light on sleep and circadian rhythms, in the absence of any artificial light exposure. Before

volunteers were sent off into the woods, researchers observed and recorded their sleep and wake patterns under their normal circumstances at home, including their individual amounts and timing of light exposure. During the week of camping, the volunteers were exposed to no artificial light. They weren't even allowed flashlights. Their light exposure was limited exclusively to natural light: sunlight in the day, moonlight and campfire light at night. Scientists again measured sleep and wake activity, as well as the timing and amount of light exposure. The results were striking. Participants—many of whom had previously been on very different sleep schedules—all had their sleep-wake cycles become more similar to one another, and align more closely with the solar day and night.

Now, I am not suggesting we forgo the comforts of home for a tent or ignore the value of artificial light. But managing sleep well in our constantly lit-up society involves being thoughtful and savvy about when and how much we expose ourselves to light. Limiting exposure to artificial light at night may be one way to protect sleep and circadian function. Getting a regular dose of sunlight in the morning is another.

Sunlight in the morning can't transform your sleep on its own. But it can be an important part of a strong routine of sleep hygiene—a set of habits and behaviors you employ that may help you improve your sleep. Plus, let's face it: sunlight on your face just feels good, and it's a great way to start your day. Get out for an early morning walk. Position your desk by an east-facing window. Look for simple ways to soak up the sunlight. It can enhance your day—and may also improve your night's rest.