

# Illuminating Your Health

GET MORE LIGHT EVERY DAY. A MOUNTAIN OF RESEARCH SHOWS IT ENHANCES ENERGY, IMMUNITY, AND HAPPINESS ALL WINTER.

By Sharlene Breakey

**DECEMBER TWINKLES** with festive lights everywhere. But it's the sun's rays, in vanishingly short supply this time of year, that really bring the joy. Researchers discovered years ago that not getting enough light during the day could cause a type of depression known as seasonal affective disorder (or SAD) and that a light box—a very bright lamp minus the dangerous UV rays—was the antidote. Now a growing pile of evidence suggests we all need to be...well, better illuminated.

Light is fundamental to our health and sense of well-being, says Shadab Rahman, PhD, an instructor at Harvard Medical School's Division of Sleep Medicine. "We need a healthy light diet as much as we need nutritious food and exercise." Proper light exposure is essential for restorative sleep, and it's a promising treatment for a range of conditions, including PMS, ADHD, eating disorders, and PTSD. It's also a spectacularly easy (and fast) way to fight fatigue and feel sharper. "Light has a direct impact on our ability to focus and feel more energetic; it enters the eye and moves through neurons to the parts of the brain that coordinate memory and alertness," Rahman says.

## Discover Your Body on Light

**THE BASICS** Light increases mood-boosting serotonin while suppressing melatonin, the hormone that induces sleep. In doing so, it controls the body's sleep-wake cycle, or circadian rhythm. If we don't get enough light in the morning, or receive too much at night, our body clock shifts, interfering with shut-eye, especially the deep, restorative REM phase. That's a constant threat nowadays, thanks to our modern lifestyles and ever-present LED devices. "With Covid-19, we're staying inside more than ever. That just pushes our clocks later," says Helen Burgess, PhD, a psychiatry professor at the University of Michigan and codirector of the school's Sleep and Circadian Research Laboratory.

## WHAT YOU MIGHT NOT KNOW

Almost every single cell—not just those in the brain—has a biological clock affected by exposure to light and darkness. Researchers think our light-dark schedule may also influ-

ence how we produce hormones throughout the body—including the stress hormone cortisol, the reproductive hormones estrogen and progesterone, and the appetite hormones leptin and ghrelin. In other words, everything from menstruation to fertility to metabolism to inflammation response can depend on sunlight.

## Time It Right

The science is complicated, but the lesson is simple: "I like to say, 'Light during the day is good; light at night is bad,'" says Kathy Reid, PhD, research professor of neurology at Northwestern University's Center for Circadian Sleep Medicine. "We evolved to set our internal clock with the sun, so all we need to do is mimic that," Rahman explains. "The predominant light used to be sunlight, and the fire and candles we once used to see at night weren't strong enough to influence our clock. Today's electrical lighting can be up to 1,000 times as strong as that evening fire." Translation: Get more and brighter light when the sun is up, preferably first thing in the morning, and dim things as it goes down.

## Go Outside!

Nothing beats getting outdoors for at least 30 minutes to an hour, even in the colder months and especially before noon. "Activity and light together is the best of all worlds, and bright morning light will shift your clock earlier, to where it should be,



while boosting serotonin to enhance mood,” Burgess says. “Sleep is sounder and more restorative when you’ve spent time outdoors,” adds Michael Terman, PhD, professor of clinical psychology in psychiatry at Columbia University and president of the Center for Environmental Therapeutics. In chilly climates, put on a few layers, head outside, and just move—walk the dog, shovel, hike, or snowshoe.

### Invest in a Light Box

Let’s be real: Life (and weather) often interfere with getting out and about. But you can still enjoy a daily dose of sunshine with your morning coffee. Just flip a switch on a light box. I keep one on my desk and take a 30-minute light bath every day at 9 a.m. to kick-start my work routine. Light boxes can be 10 times brighter than even the brightest indoor light bulbs and mimic the mood-boosting, full-spectrum

white light of the sun. They’re meant to be used at the same time each morning for no more than an hour. Choose a model that provides 3,000 to 10,000 lux of white light at a distance of a couple of feet (the brighter you can tolerate, the better) and has an illuminated panel that’s at least 14 inches wide. Make sure it’s been declared safe for eyes and skin by clinical trials, Terman says. Check out the Boxelite OS by Northern Light Technologies (\$180; [northernlighttechnologies.com](http://northernlighttechnologies.com)), which is recommended by the Center for Environmental Therapeutics. It’s a good idea to talk to your doctor before using a light box, Burgess notes.

### Try a Wearable Alternative

If you want to be able to walk around in the morning, Burgess recommends a gadget called a Re-Timer (\$189; [re-timer.com](http://re-timer.com)). Shaped like a visor, the Re-Timer indirectly floods your eyes with bright light, just as a light box does. But it allows you to unload the dishwasher or dress for work during your half-hour to hour session.

### Grab Quick Pick-Me-Ups

Even small bursts of light—just a few minutes—have a nearly immediate effect on serotonin levels, helping us become “more enthusiastic and peppier,” Burgess says. Studies showed that short spells of light reduced fatigue and elevated well-being in cancer patients, Reid says. So get mini boosts when you can—take phone calls outside (as Burgess does), walk rather than drive to the mailbox, or scroll through social media while sitting on the front stoop.

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### WHOA, THAT'S INTENSE

When it comes to maintaining circadian rhythms, the intensity of light, typically measured in lux, makes a difference. The white light of daytime sun gives off anywhere from 10,000 to 100,000 lux. Moonlight? Less than 1. The average indoor light emits 50 to 100 lux. A typical light therapy box offers between 1,000 and 10,000 lux.

### Find Your Inner Cat

Light pouring through a window can do the trick too; a mere five minutes of basking can rev up your energy. “Studies are clear—workers with access to a window have more vitality,” Reid says.

### Schedule Your Blues

We hear a lot about the harm caused by blue light, commonly emitted by our devices and bright LED bulbs. But it’s not inherently bad. Timing is what really matters, Rahman says. Blue light happens to be particularly good at stimulating our brains and suppressing melatonin. So treat it as you would caffeine—get your a.m. fill and avoid it as dusk arrives. A bright LED task lamp in your work space may help you feel cheery (and make you look great on Zoom), but switch to a softer, dimmer lamp several hours before bed, Rahman says.

### Be Smart About Smartphones

Most phones and tablets let you control the level of blue light your screen emits. Check your settings—iPhones, for example, have a Night Shift feature, which automatically switches your display to warmer tones after dark. Hold screens as far as possible from your eyes, and try to put them away at least two hours before bedtime.

### Create Your Own Sunset

We can manipulate our everyday lighting in new ways, thanks to LED technology. Overheads, sconces, and bulbs provide much more of a bright white hue than was standard even a decade ago. And newer LED lighting can now be found in a variety of warmer, blue-depleted tones. This means you can bask in your home office’s sunny overhead light until

the afternoon, then flip on a lamp equipped with a warmer hue. Packaging isn’t yet standard, but many products have a warm-to-cool scale to guide your purchase. The closer the light falls toward a warm yellow undertone, the more the blue has been dialed down. Only warmer bulbs should grace your bedside lamps, and choose nightlights that are blue-depleted, like the Amber Night Light (\$13; [lowbluelights.com](http://lowbluelights.com)) or Blue-Free, Sleep Promoting Mini Book Light (\$25; [lowbluelights.com](http://lowbluelights.com)). Some smart technology will even do the work for you.

I have a lamp called Bottled Sunshine (\$199; [sunlightinside.com](http://sunlightinside.com)), which automatically changes with the day so I can prepare for work in bright light and get ready for bed in a soft glow.

### Alert Yourself

When you set your morning alarm, also set one for three hours or so before bedtime, as a reminder to start dimming down in a world of ubiquitous LED lighting. Don’t go crazy—just keep a balance. “I still watch TV at night,” Reid says, “but I keep the lights off, as if I’m in a movie theater.”

