

The body has an internal clock aligning us with nature's day/night cycle and regulates our internal systems, affecting sleep, digestion, hormone production, temperature, and much more. Many experts feel that circadian rhythm management is every bit as important as what we eat, while poor management puts us at a greater risk for many diseases. Here are ways to better manage your own circadian rhythm.

- 1) **Get bright light for 30 minutes first thing in the morning.** Light has a profound impact on the body, including its impact on hormone production. Nature provides us with more blue light during the day, which suppresses melatonin production and helps us to stay alert. At sunset, light shifts to orange/red, allowing for melatonin production, making us tired and preparing us for sleep when it's dark out. We want to try to align with this natural progression.

Exposure to bright light (ideally sunlight) first thing in the morning is critical to align your circadian rhythm for the day. If you cannot access sunlight, consider a "full spectrum" light box. (Full spectrum just means it includes wavelengths of light across the color spectrum.) Stay within 24 inches of the lamps while using it.

In addition to this morning session, light sessions – either with the light box or by going outdoors – can be done in 5-10 minute sessions throughout the day to boost your energy. Just avoid doing so after sunset for reasons explained above.

- 2) **Start your day with movement.** Cyclic AMP (cAMP) is an important cellular signaling molecule that resets the circadian rhythm and helps tell the brain that it's daytime (synergistic with light, temperature, and food). The best way to trigger cAMP is exercise and movement. Although more intense exercise can be beneficial for those who are capable of it, it doesn't have to be intense. Walking outside, Qigong, yoga, Pilates, etc. are great options.
- 3) **Time most of your activities for during daylight hours.** For the same reason as #2 above, it's best to be more active when it's light outside, so try to time your daily plans accordingly.
- 4) **Fast for at least 3 hours before bedtime.** Fasting stimulates autophagy, where cells recycle problematic proteins, organelles, bacteria, and more. This is a critical process that helps to prevent abnormal cell growth and cellular disease. Autophagy diminishes as we age, which is why "intermittent fasting" has become an increasingly popular option among health advocates.

If you find yourself hungry before bed, try increasing total calories during the day to more easily accomplish a longer fasting period overnight. Waking up in the night hungry or anxious is a sign of possible poor blood sugar control. If this is happening, transition slowly to eating further from bedtime until, after several days or weeks, you're comfortable with not eating for at least 3 hours before bedtime.

- 5) **Block out blue light after sunset.** Most light bulbs sold today (LEDs and even fluorescent bulbs) produce a lot of blue light, as do our TV, computer, and phone screens. You can filter this blue light with “blue blocking” glasses worn after sunset. (You can easily find these online.) There are also built-in settings and 3rd-party software (e.g., <https://justgetflux.com>) for phones and computers to turn their screens orange at sunset.

You can also buy incandescent bulbs for use in lamps after sunset. These provide much warmer colors for the eyes. The warmest colors come from decorative “Edison” bulbs, but again, make sure these are incandescent rather than LED.

- 6) **Go to bed by 10:00 pm.** Going to bed earlier at night is profoundly healing, aligns our awake/sleep cycles with natural earth rhythms, and can be a life-changing experience. Any productivity or time you think you'll lose by being in bed earlier will be made up by naturally waking up earlier. You will be much more productive the next day!

If needed, use gentle meditation music to help you fall asleep. If you wake up during the night, try to stay in bed with lights off, resting. Again, you can use meditation music to fall back to sleep. If staying in bed is stressful, you can get up, but remember to avoid blue light at this time, as it will further wake you up.

- 7) **Sleep in darkness.** If your curtains or blinds don't block out all light from outside, trying correcting this with blackout curtains. You can also use a sleep mask. Night lights (even red ones) anywhere in your house should only be used while you are awake. When you go to sleep, it's best to turn off all light sources. Even a tiny amount of light (like 5 lux) can impact your circadian rhythm. This amount is often present just from ambient light from street lights outside windows.
- 8) **Get your temperature right.** Research indicates that temperature plays an important role in circadian signaling. In general, colder temperatures are a signal for nighttime that trigger sleepiness, while warmer temperatures in the morning trigger wakefulness. Though paradoxically, cold in the morning can switch on your body's heater, and heat in the late evening followed by getting out of the bath / shower / sauna can cause a drop in body temperature, triggering sleep. Find what works best for you to cool down your body in the evening and warm it up in the morning to support your circadian rhythm. Beyond home air conditioning and heat, there are mattress technologies that can help if this is a big issue, but

be aware that they can be noisy and they expose your body to electromagnetic fields, so use only if necessary to achieve good sleep.

- 9) **Use sound to entrain circadian rhythm.** The calls of songbirds influence circadian rhythms. You can wake to these soothing sounds before shifting toward music that energizes you. At night, in the few hours before bed, keep the volume of any noise (TV, computer, conversation, etc.) relatively low.

- 10) **Have a routine as best you can.** Doing things at the same time each day, like getting up, eating, and exercising, helps to entrain the nervous system, brain, and overall biology for good circadian rhythm signaling.