

## Wellness Tips: Nighttime Lighting and Your Health

In 2012, the American Medical Association (AMA) recognized that exposure to light at night, including lights from computer screens and other electronic media, can disrupt circadian rhythms and sleep, and may have further health impacts including increased risk of certain cancers, diabetes, and mood disorders.<sup>1</sup>

### What is known?

Multiple studies have linked exposure to light at night to several types of cancer (breast, prostate), diabetes, heart disease, and obesity. It's not yet exactly clear how or why nighttime light exposure may be harmful, but it is known that exposure to light disrupts our ability to produce melatonin, a hormone that influences circadian rhythms, and there's some preliminary research that links lower melatonin levels to cancer development.

### Is all light the same?

While many kinds of light can suppress your body's production of melatonin, blue light is the most suppressive. Blue wavelengths—which are beneficial during daylight hours because they boost attention and mood—seem to be the most disruptive at night. Blue light wavelengths are commonly emitted from energy-efficient LED and fluorescent lighting as well as from laptops, tablets, and e-readers.

### What can we do?

More research is needed to study the effects of blue-light exposure on sleep and overall health. Given the growing concerns with nighttime lighting, there are a few steps one can take to help manage nighttime light exposures and their potential associated health risks.

- Avoid looking at electronic displays (i.e., laptops, tablets) and other bright light beginning two to three hours before bedtime.
- Beside unplugging from the electronic world at night, some alternatives you can try include the following:
  - Wearing amber- or red-tinted glasses that are effective in filtering blue light.<sup>2</sup>

- Using computer software that changes the display color tone. Some applications such as F.lux (<https://justgetflux.com/>) automatically adjust the color tone depending on the time of day.
- Use dim red light for night lights as it has the least power to shift circadian rhythm and suppress melatonin.

For more general tips relating to nighttime sleep hygiene, check out the US National Institute of Health- Centers for Disease Control and Prevention at:

[http://www.cdc.gov/sleep/about\\_sleep/sleep\\_hygiene.htm](http://www.cdc.gov/sleep/about_sleep/sleep_hygiene.htm)

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<sup>1</sup> REPORT 4 OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH (A-12) Light Pollution: Adverse Health Effects of Nighttime Lighting. D Blask, G Brainard, R Gibbons, S Lockley, R Stevens, and M Motta.  
<http://www.atmob.org/library/resources/AMA%20Health%20Effects%20Light%20at%20Night.pdf>

<sup>2</sup> [Burkhart K](#)<sup>1</sup>, [Phelps JR](#). Amber lenses to block blue light and improve sleep: a randomized trial. [Chronobiol Int](#). 2009 Dec;26(8):1602-12.