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Blue light has a darkside

Does enabling Night Shift mode have a positive effect on your sleeping patterns?

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Blue light, also commonly known as high-energy visible (HEV) light, is a hue visible to human eyes in the visible light spectrum. Long-term exposure to blue light may result in retinal cell damage. Blue light tricks the brain into believing it is daytime during the dark hours of the night. When this happens, the body stops producing melatonin, a sleep hormone. This article will explore what Apple has done to protect its customers from eye damage and other negative side effects. Also, how iPhones may be impacting the sleep of the general population.

Blue light from devices may create discomfort for users over long periods of screen time. It is debatable within the scientific community if the blue light hue has a major impact on the eyes. Some studies suggest it can damage the retina of the eye, while others contrast and say the evidence is inconclusive. It is generally agreed that blue light affects most people's sleep when exposed to it an hour before they sleep at night.

Sleep, 2022

In a study by "Sleep" in 2022, "4 in 10 Australian adults not getting enough good-quality sleep". The link between quality sleep and limiting blue light consumption can potentially fix this sleep phenomenon.

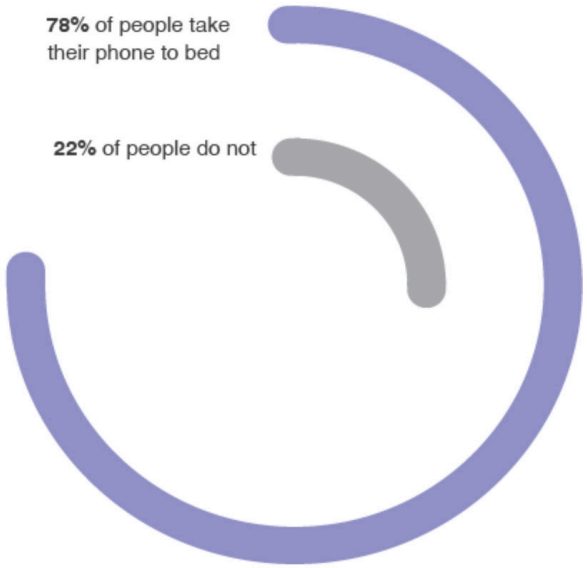
Blue light consumption in the evening can affect your circadian rhythms and make it harder to fall asleep. These studies inspired Apple to create in 2016 the "Night Shift" mode for its line of devices, such as the iPhone. Apple claims that blue light might harm your eyes. Therefore, the Night Shift feature adds a warm tint to the display without affecting the brightness. According to Apple 2022, "Night Shift uses your iPhone's clock and geolocation to determine when it's sunset in your location. It then automatically shifts the colors..." This was the solution from Apple to regulate the user's circadian rhythms, thus in theory making it easier to sleep.

Several studies have been conducted on Apple's night shift mode and whether it actually protects the eyes from blue light and benefits sleep. Apple has previously said that the night shift feature on Iphones can actually aid and improve sleep by reducing blue light and increasing yellow light because it mimics day shifting to night. Several studies have proven that is not the case. In a study conducted by Brigham Young University, it was proven that night shift mode does not improve an individual's quality or hours of sleep. The study involved 167 18-24 year old people who were split into three groups. The people who didn't use their phones before sleep had the best results but the groups all had roughly the same outcome which proves that night shift mode does not improve or aid a person's sleep.

Since people in the 21st century are being exposed to blue light more than ever, certain measures need to be taken to protect the eyes.

It is no secret that long periods of exposure to blue light can have effects on the eyes such as damaged retinal cells and premature aging of the eyes. Some steps that can be taken to prevent problems with the eyes are decreasing screen time, getting a pair of computer glasses that help block blue light because they are yellow tinted and adding filters to screens can benefit the eyes as well because they reduce the amount of blue light going through the screen.

Evading blue light is almost impossible in our modern world and although things like night shift mode have been introduced they can't prevent the damage caused by blue light. The best way to prevent damage is to take breaks from the screen and avoid using phones before bed to improve sleep quality.



Does, 2018

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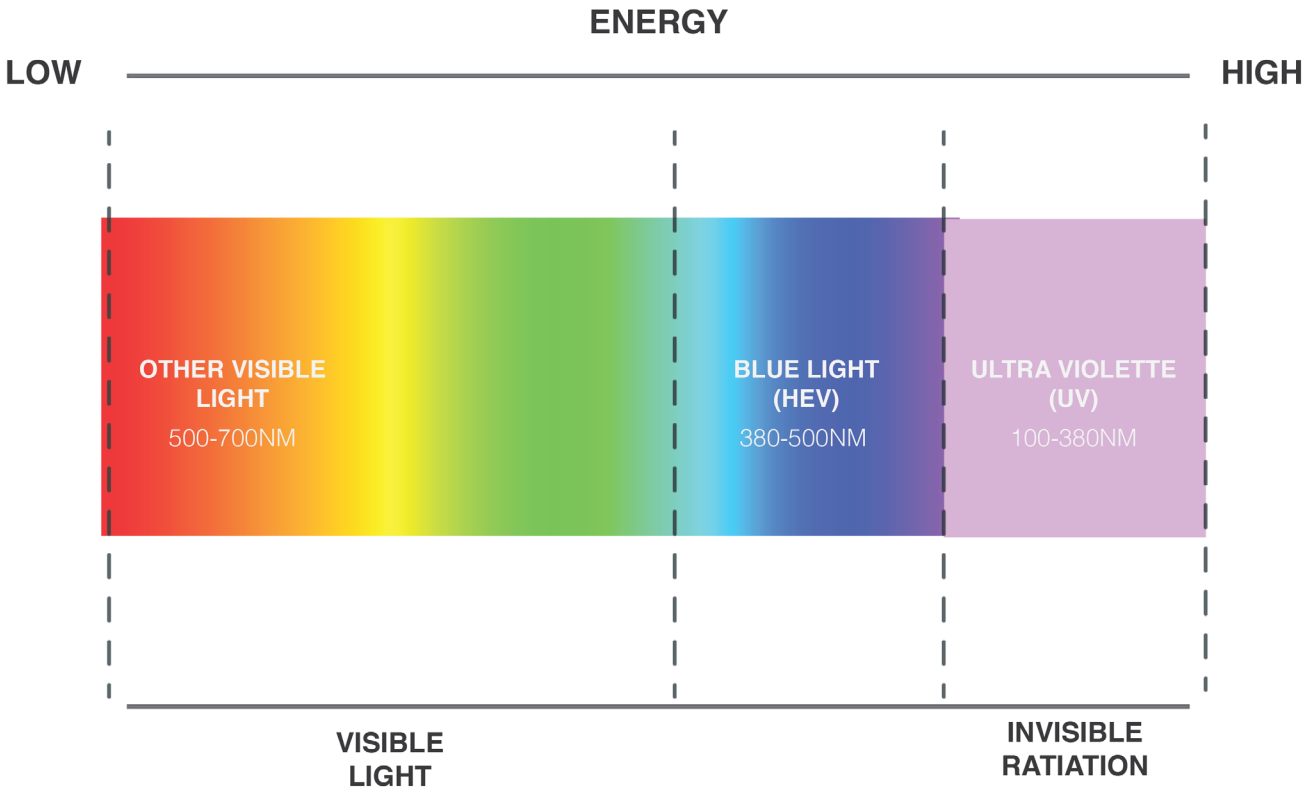
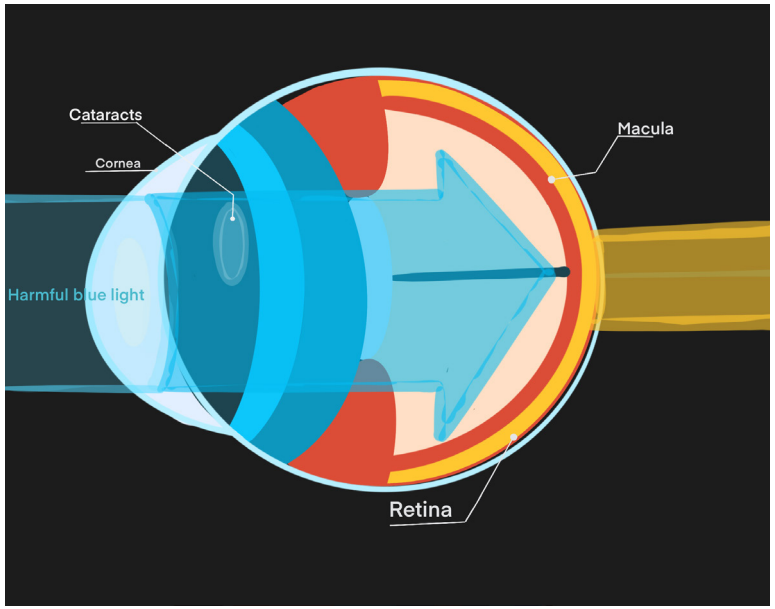
Visible spectrum



Parts of the eye



Info based on (“Blue Light and Your Eyes - Prevent Blindness,” 2016)

The visible light section is visible to the human eye which makes blue light on the verge of being invisible the human eye.