

Blue Light and Vision

With the increased use of electronics for work and pleasure, a new set of emerging consequences has arisen. Overuse of electronics can affect many aspects of life, such as, socialization, obesity, behavior, and vision.

Smartphones, tablets, and computer screens emit **blue light**. “These short, high-energy waves can cause anything from eye discomfort to retinal damage.” (Your Sight Matters, 2018). Blue light creates a glaring effect on the eyes that can lead to dry eye, blurred vision, headaches, nearsightedness, and eye fatigue. This condition is often referred to as **Digital Eye Strain**. Blue light can also contribute to sleeplessness and insomnia due to the effect of it decreasing melatonin levels.

Typically, digital eye strain causes temporary symptoms that will dissipate with ceasing the use of electronic screens. However, long-term exposure to blue light can be quite serious. The eye’s cornea and lens cannot block or reflect blue light. Prolonged exposure to blue light can contribute to chemical reactions that kill photoreceptors in the retina, which could potentially harm the retinal cells and make a person susceptible to conditions like macular degeneration, a leading cause of blindness (Your Sight Matters, 2018).

Some recommendations for decreasing exposure to blue light include the following:

- Setting limits on screen time.
- Turning off electronics 2 hours before bed.
- Increasing your blink rate. Remind yourself to blink often to avoid dry eye and eye strain.
- Taking regular breaks from electronics. Implement the 20-20-20 rule. This means that every 20 minutes look at something 20 feet away for at least 20 seconds.
- Having blue light blocker applied to eyeglasses.
- Teaching children about the effects of electronics on their vision.
- Visiting your eye doctor regularly for thorough eye examinations.

References:

Blue Light From Electronic Devices, Sun May Damage Vision: Study. (2018.) Retrieved from <http://www.safetyandhealthmagazine.com/articles/17554-blue-light-from-electronic-devices-sun-may-damage-vision-study#comments-container>

Are Electronic Devices Affecting My Vision? (2018.) Retrieved from <http://www.yoursightmatters.com/are-electronic-devices-affecting-my-vision/>