



From ZZZs to disease, the blue light battle is on

It's indisputable: our eyes are overexposed to digital devices like never before. And in the background hides potentially harmful blue light that may affect our sleep, or even cause long-term vision issues. But, here's some good news – you can act now to avoid vision issues later with advanced lens filtering technology formulated to give your eyes extra special protection.

Q: WHAT IS BLUE LIGHT?

A: Blue light is a natural part of the light spectrum visible to the human eye; it can come from fluorescent lighting, electronic screens, and of course, the sun. By day, blue light can be associated with boosted mood and attention, but by night, it can be a culprit of interrupted sleep.¹

Q: HOW DOES BLUE LIGHT INTERRUPT SLEEP?

A: Researchers know that exposure to light at night suppresses the secretion of melatonin, a hormone that tells us when it is time to sleep. And an extended lack of deep sleep has been linked to depression and a decline in the body's ability to fight off certain diseases.¹

Q: CAN BLUE LIGHT EXPOSURE CAUSE LONG-TERM DAMAGE TO MY EYESIGHT?

A: In addition to disrupting sleep, blue light has been found to contribute to retinal stress, which could lead to an early onset of age-related macular degeneration (AMD).² Macular degeneration deteriorates healthy cells within the macula, creating a loss of central vision that may impact reading, writing, driving, color perception and other cognitive functions. In serious cases, blindness can occur.

Q: IS BLUE LIGHT THE SAME THING AS DIGITAL EYE STRAIN?

A: In a nutshell, yes. And no. The average person spends 7.4 hours a day looking at a screen.³ As a result, 65% of us suffer from digital eye strain⁴ – the physical discomfort felt after spending too much time in front of a screen. Blue light, or high energy visible light, contributes to that strain, causing dryness, irritation and blurry vision.

7.4
HOURS

Daily digital device screen
time for the average person³



Percentage of people who
suffer from digital eye strain,⁴
partially caused by blue light

¹ "Blue light has a dark side," *Harvard Health Letter*, May 1, 2012, <http://www.health.harvard.edu/staying-healthy/blue-light-has-a-dark-side>.

² "What's in a Color: The Unique Human Health Effects of Blue Light," *Environ Health Perspect*, by David C. Holzman, Jan. 2010, 118(1): A22-A27, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2831986/>.

³ American Time Use Survey Summary, Bureau of Labor Statistics, United States Department of Labor, June 24 2016, <http://www.bls.gov/news.release/atus.nr0.htm>.

⁴ 2016 Digital Eye Strain Report. The Vision Council, <https://www.thevisioncouncil.org/digital-eye-strain-report-2016>.



Q: WHAT DOES BLUE LIGHT MEAN FOR KIDS?

A: The effects of blue light on vision can be wide ranging and potentially damaging for kids because their maturing eyes haven't yet developed the protective pigments needed to help filter out blue light.⁵

Q: WHAT CAN I DO TO PROTECT MYSELF OR MY KIDS FROM BLUE LIGHT?

A: Reducing screen time is a sure fire way to protect against blue light. If less screen time isn't doable given your lifestyle, start by cutting exposure to blue light at night and filtering light during the day. You can do this by wearing glasses fitted with blue light filtering lenses.

Q: WHICH IS BETTER: BLUE LIGHT PROTECTION IN THE LENS MATERIAL OR ADDED AS A COATING ON THE LENS?

A: Blue light protection may either be added to the lens material itself, or it may be added to a lens as a finishing coat. While both options are helpful, some studies indicate that adding blue light protection directly into the lens material may be more effective. Consult with your eye doctor to find the best prescription for your lifestyle and vision needs.

Q: WHAT BLUE LIGHT PRODUCTS SHOULD I ASK MY DOCTOR ABOUT?

A: Even though blue light protection is new to the market, there are already several great products to choose from, with new options popping up all the time. For instance, LensCrafters® Blue IQ™, Pearle Vision Blutech and Essilor Eyezen™ lenses all incorporate blue light protection directly into the lens material. Essilor Crizal Prevencia™, Hoya Recharge™ and DuraVision® BlueProtect by ZEISS offer an anti-reflective blue light coating. Consult with your eye doctor to find the best prescription for your lifestyle and vision needs.

Q: ARE MY BLUE LIGHT LENSES SUPPOSED TO HAVE A TINT INSTEAD OF BEING CLEAR?

A: According to the American Optometric Association (AOA), a tinted lens is required to reduce retinal exposure to visible light.⁷ To protect the retina more fully from blue light, the AOA states that a yellow, amber, orange or red lens is required. This means if you notice a slight tint, the blue light lenses are getting the job done.

Because EyeMed knows that blue light is a part of your everyday life, we've updated our vision benefits to include options for purchasing eyewear with blue light filtering technology, starting at just \$15.*

Make sure to choose a solution that filters light off the screen, doesn't distort color and preferably includes polycarbonate lenses, especially for the little ones. As always, be sure to check your benefits and discuss with your eye doctor what options may be right for you.

*May be subject to additional upcharges based on your selections.

⁵ Kitchel, Low Vision Research Associate, <https://www.tsbvi.edu/seehear/fall99/ultraviolet.htm>.

⁶ LensCrafters internal lens review, 2016.

⁷ "Light and Eye Damage," by Gregory W. Good, O.D., Ph.D., American Optometric Association, December 2014.

5X MORE PROTECTION

Featherwates Blue IQ™ lenses offered by LensCrafters filter up to 5 times more blue light than coating alone⁶

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