



Stock trader Chris Lotito studies a computer screen at the New York Stock Exchange on Jan. 2. In the business world, many use digital devices 8 to 10 hours daily, including computers, tablets, and cell phones. **Mark Lennihan** AP

**BUSINESS MONDAY**

## Out of the blue: An employer's guide to the impact of blue light

BY DR. ALAN MENDELSON January 15, 2018 07:00 AM

*Special to the Miami Herald*

One of the known ways to enhance the quality and quantity of productive performance at work is to encourage and facilitate employees to live a healthy lifestyle by not smoking, exercising daily and eating a healthier diet.

Often overlooked, but equally as important for maximizing work productivity, is ensuring that all staff improve their quality of vision and comfort level while doing desk work, paperwork, and especially when viewing work on their digital screens.

As an ophthalmologist practicing in Broward for more than 30 years, you would expect me to encourage employees to have an annual eye exam. But the benefit is really for the employees as well as the employers. Uncorrected refractive errors cause blurring of vision, ocular strain, fatigue and headaches. Excellent visual acuity correlates directly with better productivity.

The Vision Council reports nearly 95 percent of Americans spend two or more hours every day on digital devices. In the business world, many use digital devices 8 to 10 hours daily, including computers, tablets, and cellphones. While the digital devices are a boon to modern day productivity, there is collateral damage in the form of blue light emissions from these devices, namely high-energy visible or HEV light.

Blue light is emitted from back light displays of digital devices, LED and incandescent light bulbs, and even more concerning for South Floridians, the sun. The blue light emissions lead to digital eyestrain, which is characterized by eye fatigue, blurred vision, red and/or dry eyes, general eye discomfort, headaches, migraines and decreased productivity.



**Dr. Alan Mendelsohn is an ophthalmologist in the Hollywood-Fort Lauderdale area.**

Counterintuitively, when you “take a break” from work and pull out a cellphone to catch up with texts, social media, etc., you continue to be afflicted by blue light emissions, further exacerbating digital eyestrain.

While digital eyestrain is concerning, there is a more pressing problem: Blue light emissions are a predisposing factor contributing to macular degeneration, the leading cause of blindness in adults.

While avoiding the emission of blue light from the sun and digital devices is not feasible, there are ways we can protect ourselves and our employees from the hazards of blue light:

- **Keep your distance:** When looking at your digital device, hold it farther away. Remember when your parents told you to sit farther away from the TV? I hate to say it, but they were right. Ideally in the workplace, instead of utilizing a small tablet or a laptop, it is preferable to have a large monitor set with an increased font size situated several feet away.

- **Block the blue:** The better quality sunglasses have both UV protection and blue light blocker. Now this may sound ridiculous, but wear your sunglasses, not just outdoors but when using your digital devices. Maybe not at work, but when you are home and relaxing on your digital devices, wear them. Also, check out the newly emerging software, apps and screensavers that purport to solve the problem

**Add a yellow pigment:** Your next pair of glasses should have a blue blocker or filter embedded in the lens with [yellow chromophore pigment](#), which blocks the hazardous blue rays but allows the good stuff to come through. Current research indicates quality lenses with blue blocker substantially reduced retinal cell death, thereby reducing drusen and macular degeneration.

A lot of you may be thinking that this is just hype. Three decades ago, there was a tidal wave of concern about the risks of smoking and yet there were plenty of skeptics. Researchers were proven to be emphatically correct.

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