

AMD, Blue Light and Sunglasses

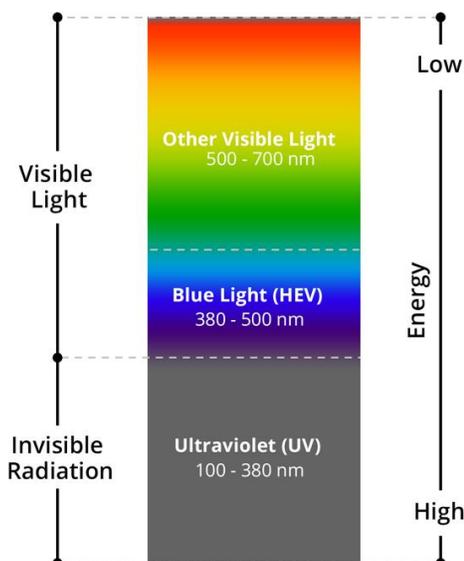
As summer arrives, people start to think about spending more time outdoors. Especially for those with AMD, sunlight brings the good and the bad.

First, the good. . .

Older adults and those who are house-bound are especially at risk for vitamin D deficiency. Sunlight, including invisible ultraviolet radiation, helps the body manufacture vitamin D, and contributes to overall health. Sunlight can raise spirits, help memory, cognitive function and contribute to more restful sleep.

But, there is also the bad. . .

Of course, we are all aware that the risk of skin cancer increases with exposure to sun. Similarly, our eyes can also be damaged by exposure to sunlight.



The full spectrum of the sun's visible light is 'white light' but the spectrum can be broken into different colors that vary in wavelength and energy. Visible light rays with longer wavelengths contain low energy (like red light), and those with the shortest wavelengths having the most energy are called blue light. Blue light has wavelengths ranging from 380-500 nanometers. UV or

Ultraviolet light is the name given for invisible radiation beyond blue light with the highest energy and shortest wavelengths (100-380 nm). In addition to sunlight, other sources of blue light are fluorescent lights, LED light and LED television screens and computer monitors.

When the front of the eye is healthy, the cornea and lens block most UV light from entering the eye; however, blue light will manage to pass through the cornea and reach the retina. Studies have shown that too much exposure to blue light can damage the light-sensitive cells in the retina. Many researchers believe blue light is harmful to individuals at risk for AMD.

Wearing dark sunglasses may block the UV radiation, but they may be ineffective against blue light transmission. In addition to offering UV Protection, the best sunglasses for those with AMD should also include a light filter that will protect against blue light. Called 'blue blockers', 'low vision filters' or 'HEV (high-energy visible) light filters', these glasses usually have an orange, red, or yellow tint. Some blue light blocking lenses can almost appear clear with a very subtle amber tint.

Well-made blue blocker sunglasses will not result in darkened views because the filter enhances contrast and maximizes brightness. In fact, many AMD patients start wearing these sunglasses indoors and outdoors to reduce glare and improve clarity.

Understanding the range of visible blue light (from 380 to 500 nanometers) will help when you are selecting sunglasses. You are likely to see labels with words like UV420 or UV470 protection, which reveals what light wavelengths are blocked. The glasses offering the best protection will be those with the higher number: sunglasses that offer UVA500 will offer complete protection against blue light spectrum.

These glasses can offer health protection for your eyes at an affordable price. A Consumers Report test found that an \$8 pair of Uvex-Skyper safety eyewear (available at Walmarts or Amazon) was more effective



at blocking blue light than two other sunglasses marketed to the AMD community and priced at \$40 and \$53.

You can investigate more about blue light, AMD and sunglasses by visiting websites like www.allaboutvision.com or www.webrn-maculardegeneration.com or you can ask your optician for recommendations. Blue blocking sunglasses come in many varieties that offer protection and style, such as ones that fit over regular glasses, clip-ons, and wrap arounds that offer peripheral protection. With the arrival of summer, it may be the right time to invest in a new pair of sunglasses!



Some companies that specialize in blue light blocking sunglasses for individuals with AMD include www.cocoonseyewear.com , www.zennioptical.com and www.noirmedical.com

You can watch a short video with Dr. Mital Mehta, MD, of Gavin Herbert Eye Institute discussing the effect of blue light on AMD by visiting the Macular Degeneration Partnership Facebook page, and clicking the video section on the left side of the page. The title is “Potential Risks of Blue Light”.