

Computer vision syndrome, mask-associated dry eye & more with David Aizuss, MD

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Featured topic and speakers

In today's COVID-19 Update, AMA Chief Experience Officer Todd Unger reflects on #SaveYourVisionMonth with David Aizuss, MD, an ophthalmologist in Los Angeles and an AMA trustee, who shares what physicians want you to know about how the pandemic may be affecting your eye health and the importance of regular eye care from a physician.

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Speaker

- David Aizuss, MD, ophthalmologist and AMA Trustee

Transcript

Unger: Hello. This is the American Medical Association's COVID-19 Update video and podcast. Today we're joined by Dr. David Aizuss, an ophthalmologist in Los Angeles and an AMA trustee who's going to talk about what physicians want you to know about how the pandemic and the affecting eye health and the importance of regular eye care from a physician. I'm Todd Unger, AMA's chief experience officer in Chicago. Dr. Aizuss, thanks so much for joining us today. Been a lot of stress over the past two years and I think when people think about stress they think about potential effects like high blood pressure, anxiety, sleep problems. We've heard all of those things. What they may not think about is eye health and so we're going to talk about today, why don't we just start off by talking about how does

stress affect eye health?

Dr. Aizuss: Todd, stress, anxiety, depression, all sorts of mental health issues affects our entire sensory system, including vision. We know that vision's a complex psychosocial process where we build a model of the world around us and this can definitely be affected by our mental state. Eye twitching, for example, is a common stress response in which the muscles around the eye spasm in response to stress. It's a common problem that usually resolves spontaneously but can be aggravated by caffeine or even thyroid status.

Another common issue that can be aggravated by stress is dry eye. In fact, there's an association between dry eye disease and psychiatric disorders. It's been reported in several studies, particularly depression and anxiety. We know that dry eye disease impacts quality of life as well as work productivity and we know that dry eye disease has been worsening during the pandemic due to the hours spent on Zoom and other video display terminals. One more rare issue that can be aggravated by stress is central serous retinopathy where leakage occurs in the center of the retina causing blurred or distorted vision. Addressing any stress-related eye disorder early permits better resolution in treatment.

Unger: There are obviously behavioral changes that we've gone through during the pandemic but I'm curious, with the things that you lay out that were in that list, what's the scientific explanation for how and why issues like this occur as a result of increased stress?

Dr. Aizuss: When we're stressed, cortisol levels in our bodies increase. As you know, cortisol is a hormone that's released by the adrenal glands that can cause changes to vision. For example, in the flight or fight response that's induced by stress, our pupils will dilate, which can cause problems with our accommodation or near focusing mechanism, which can also result in increased light sensitivity and blurring when one's anxious. In some cases, those same elevated cortisol levels can result in central serous retinopathy. That's the situation where fluid leaks within the inner retinal layers causing distortion of vision, blurriness, sometimes a gray spot will appear in the vision.

Most of these things will resolve spontaneously. Sometimes they need to be treated with vascular endothelial growth factor injections, rarely laser photocoagulation and occasionally repeated episodes of central serous can result in permanent retinal damage impacting quality of vision.

Unger: Well, you also mentioned something about remote work and we know the pandemic saw a huge increase in remote work and schooling for a lot of people. People are generally spending a lot of time in front of their computers, even more so than they did before. Has this had an impact on eye health?

Dr. Aizuss: Absolutely. Focusing on video display terminals results in a longer blinking interval that exacerbates tear film evaporation and increases the risk of developing dry eye disease. Conditions

such as computer vision syndrome are also becoming more common as screen time increases. Computer vision syndrome can cause headaches, blurred vision, dry eyes, eye strain. Oftentimes, we'll prescribe glasses for computer tests, particularly for people in their late forties and beyond. We counsel patients to follow the 20/20 rule wherein every 20 minutes they focus on something in the distance 20 feet away for 20 seconds. This helps relieve accommodative spasm, permits more regular blinking to improve the ... and lubrication of the eyes, decreases the incidence of headaches and eye twitching and will promote improved ocular comfort.

Unger: I have to get my head out from behind this monitor once in a while, is what you're telling me, and kind of focus on something a little bit farther away.

Dr. Aizuss: Exactly.

Unger: One of the things, of course, we've been doing throughout this pandemic is wearing masks and there's some indication possibly that this could have an impact on the eyes.

Dr. Aizuss: Absolutely. In fact, this is the first time I've taken my mask off today. Wearing masks is a very common cause of dry eye problems. First, there's often a re-direction of air towards your eyes caused by ill-fitting masks. A lot of people have masks that have a metal strip to ensure they fit well over the nose and help reduce spectacle fogging for those who wear glasses but they're also helpful in ensuring that dry air is not going up into our eyes. For those who suffer dry eye symptoms in spite of this, we recommend artificial tears from a bottle, up to about four times daily.

If someone feels that they would benefit from tears more frequently, then we advise preservative-free tears so they don't develop the adverse effects from the preservatives that are in most bottled tears. Other useful adjuncts are hot compresses once or twice daily, which improves what's called the meibomian gland flow. That results in less tear film evaporation.

Unger: In addition to masks, to embrace my complete germophobia, I try not to touch anything but there's been a lot of direction, of course, not to touch your eyes because that can be a transmission source for COVID. What is the connection between our eyes and viral transmission? Have you seen any kind of COVID-related eye issues?

Dr. Aizuss: Early on in the pandemic there was significant concern that touching something on which the virus had landed and then rubbing our eyes would cause self-inoculation with resultant COVID infection. We know now that fomite transmission is not a significant means of transmission of the virus. Rather, the virus is primarily transmitted via respiratory droplets. Having said that, there's many cases of COVID associated conjunctivitis and the virus is cultured from the tears. Rubbing one's mouth, face and eyes can certainly be a means of self-inoculation, which is why we advise against this and, like any respiratory virus, we always tell individuals wash your hands frequently to avoid and prevent transmission or infection.

Unger: Now, not a lot of people know this but this March was actually Save Your Vision Month, which reminds all of the importance of regular eye care. Over the past two years, like with a lot of things, I think many patients have skipped all types of preventative care, including their regular eye checkups. Have you seen more serious eye issues cropping up in your practice because of this?

Dr. Aizuss: Absolutely. We're definitely seeing patients who have skipped their eye care over the past two years and, as a result, our practice and that of most ophthalmologists are as busy as ever. In particular, we're seeing individuals who failed to monitor their glaucoma, with resultant greater optic nerve damage and vision loss. We're seeing individuals whose cataract formation has advanced significantly, requiring surgery. We're seeing many more eyelid infections such as sties or chalazia, which is related to mask wear.

We're also just seeing people coming in with blurred vision who've not had routine care over the past two years and simply need their spectacles updated. Interestingly, I'm scheduling surgery now in July when I would normally have been scheduling a month out at the most.

Unger: Wow.

Dr. Aizuss: All of this is related to the huge number of people that have delayed care and are now coming in saying I need something done.

Unger: Well, there are a lot of different kind of eye care professionals and I think it can be confusing to patients. Why is seeing an ophthalmologist, a trained physician with a medical degree, important?

Dr. Aizuss: Ophthalmologists are, as you note, physicians, MDs who have usually completed four years of college, four years of medical school, four years of post-medical school residency in ophthalmology and, finally, in many cases, another one or two years of subspecialty fellowship training. The post-college training consists of eight to 10 years. They're the proverbial captain of the eyecare ship. The ophthalmology team also includes optometrists, ophthalmic nurses and technicians, opticians but since ophthalmologists have extensive medical training in both medical school and residency, they have a far more comprehensive understanding of disease in general, its systemic manifestations and the particular relationship to various diseases and their presentation in the eye.

Dr. Aizuss: Primary care physicians are important partners in the care of our eye patients and they're often the first individual who notes a problem that needs to be referred to an ophthalmologist. Similarly, we have patients who have diabetes, rheumatologic disorders that impact the eye and we work closely with our family physician and internist colleagues as well as with endocrinologists and rheumatologists to provide the patients full care.

Unger: How does someone know when an eye issue is serious enough to call a physician?

Dr. Aizuss: If you're having minor symptoms such as a little bit of redness or maybe a mild form body sensation, it's not unreasonable to wait a day or two and see if things improve, more serious problems, such as significant pain, increasing blurred vision, loss of part of the field of vision, new onset of floaters, flashing lights in the vision, those should be evaluated more urgently.

Unger: Finally, what should physicians be telling patients about how to proactively protect the eyes and potentially prevent some of the eye-related health issues that we've talked about?

Dr. Aizuss: We always advise patients of the same common sense recommendations that all physicians recommend: prioritize self-care, exercise, eat properly, get plenty of sleep, stay hydrated, avoid too much caffeine or alcohol, reduce screen time, learn to manage stress in your lives. With regard to over-the-counter drops, we encourage use of artificial tears to lubricate the eyes when necessary but we advise against products that "get the red out." Those products work by constricting the blood vessels on the surface of the eye, which is inevitably followed by rebound dilation of those vessels and increased redness. The good news is that most of us have healthy eyes and they don't need a lot of intervention on a daily basis. But if you're concerned about your eyes, go see an ophthalmologist.

Unger: Well, it sounds like a lot of those things that you laid out in your self-care regimen are the opposite of what people have been doing during the pandemic so probably no wonder you have so many folks looking for you right now. Dr. Aizuss, thank you so much for being here with us on today's episode. We'll be back soon with another new video and podcast. For updated resources on COVID-19, visit ama-assn.org/COVID-19. Thanks for joining us and please take care.

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