Ask the Pediatrician: What can help keep my child's eyes from hurting after being online all day for school?

22 February 2021, by Dr. Geoff Bradford

Is there anything that can help my son, who complains that his eyes hurt after a long day of virtual learning?

Children spend more time than ever staring at digital screens—on computers, tablets, TVs, smartphones and other devices. All that screen time can take a toll on children's well-being, including how their eyes may feel.

Research shows that children begin zooming in on digital media devices, such as their parents' tablets or smartphones, as young as 6 months old. By their teens, studies have found, kids spend nearly 7 hours a day using screened-based media, watching TV, playing video games, and using social media. Especially if they're having fun, children might keep playing and watching to the point of eye-rubbing exhaustion.

Amid the pandemic, children are spending even more time on their laptops and computers if they are doing virtual learning.

Staring at a screen for long stretches without taking breaks can cause symptoms such as:

- Eye fatigue. Muscles around the eye, like any others, can get tired from continued use. Concentrating on a screen for extended periods can cause concentration difficulties and headaches centered around the temple and eyes. Children may also use screen devices where lighting is less than ideal, causing fatigue from squinting.
- Blurry vision. Gazing at the same distance for an extended time can cause the eye's focusing system to spasm or temporarily "lock up." This condition, called an accommodation spasm, causes a child's vision to blur when he or she looks away

from the screen. Some studies also suggest computer use and other close-up indoor activities may fuel rising rates of myopia (nearsightedness) among children, although this is not yet proven. More time playing outside may result in healthier vision development in children.

- Dry eyes. Studies show that people blink significantly less often when concentrating on a digital screen, which can leave eyes dry and irritated. Desktop and laptop computer use can be especially tough on children's eyes, because they're usually situated higher up in the visual field than a book, for example. As a result, the upper eyelids tend to be open wider—speeding up evaporation of the eye's tear film.

Parents can do the following things:

- Monitor screen time. The American Academy of Pediatrics family media use plan and related reports target issues ranging from obesity to sleep problems linked to too much screen time. Although children's screen time has understandably increased during the COVID-19 pandemic, the AAP encourages parents to do their best to help keep some balance between the digital and real world. Two especially important aspects of this are making sure screen time doesn't cut into exercise and sleep.
- Urge children to take frequent breaks. Children frequently get so absorbed in what they're doing that they don't notice symptoms of eye strain. Remind them to take breaks. The American Optometric Association recommends the 20/20/20 rule: look away from the screen every 20 minutes, focus on an object at least 20 feet

away, for at least 20 seconds. In addition, children should walk away from the screen for at least 10 minutes every hour. A simple timer can help your child remember, and there are even [software programs](#) can help by turning off the screen in regular intervals.

- Remind them to blink. Research published in The *New England Journal of Medicine* says staring at a computer can cut blinking rates by half and cause dry eyes. Encourage your child to try to blink often, especially when they take breaks. Your pediatrician or eye doctor may recommend moisturizing eye drops or a room humidifier if your child continues to be bothered by dry eyes.
- Position screens correctly. Make sure the screen on your child's desktop or laptop computer is slightly below eye level. Looking up at a screen opens eyes wider and dries them out quicker. Adjusting the font size, especially on smaller screens, so it's twice as big as your child can comfortably read may also help to reduce eye fatigue.
- Improve the lighting. To cut down on glare and eye fatigue, consider the level of lighting in the room when using a computer or other screen. Ideally, it should be roughly half what it would be for other activities such as writing on paper or working on crafts. Try to position computers so that light from uncovered windows, lamps and overhead light fixtures isn't shining directly on screens. Decrease the brightness of the screen to a more comfortable level for viewing. Some optometrists recommend special [computer](#) glasses with orange lenses that may also help reduce glare. Children who wear prescription eyeglasses may have an anti-reflective coating added, as well. Computer monitor hoods or shades that attach to the screen may also be a good option.
- Get regular vision screenings. If your child is having blurry vision or similar eye problems, he or she may not speak up. That's why regular vision screenings are important. The American Academy of Ophthalmology and the AAP recommend

children have their eyes checked by a pediatrician at well-child visits beginning at birth. If a problem is found during one of these routine eye exams, your pediatrician may refer you to a pediatric ophthalmologist.

If you have any questions about keeping your child's eyes and vision healthy during the pandemic, talk with your pediatrician.

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