

# New research shows virtual school can harm children's vision

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When COVID-19 first shut down classrooms and virtual schooling became the new norm, ophthalmologists predicted an increase in digital eye strain in children. New research from ophthalmologists at Wills Eye

Hospital confirms that the increased screen time did lead to more eye strain in children, as well as a more troubling eye condition called convergence insufficiency, which can cause difficulty reading. The study is being presented at AAO 2021, the 125th annual meeting of the American Academy of Ophthalmology.

Convergence insufficiency is a condition in which your eyes are unable to work together when looking at objects up close. This condition causes one eye to turn outward instead of inward with the other eye, which creates double or blurred vision. Sometimes words appear to move around on the page while reading. This can cause parents or teachers to suspect the child has learning problems rather than an eye disorder. Treatment can include eye exercises, prism eyeglasses or surgery, depending on the severity of the condition.

Eye strain describes a series of symptoms that include eye fatigue, blurry vision, dry eye, and headaches. It's a common occurrence among computer users because people don't blink nearly enough when using electronic devices. Studies show humans normally blink about 15 times a minute, but blink rate decreases to about five to seven times a minute while using digital devices. For most people, simply taking frequent breaks from near work and remembering to blink resolves eye strain symptoms.

To conduct their [study](#), researchers surveyed 110 students, aged 10 to 17, before and after school. School days varied in length from three to ten hours. All students were free of vision issues before the study.

The survey revealed that the more [time](#) students spent online, the more likely they were to experience eye strain and [convergence](#) insufficiency, with 57 percent of students experiencing eye strain and 61 percent showing symptoms of convergence insufficiency. Of the students experiencing convergence insufficiency, 17 percent were considered

severe cases.

"Even healthy kids can develop eye complaints from computers and tablets," said researcher Judith Lavrich, MD. "This is important because we know digital technology is here to stay, even post-pandemic. Parents should be aware and asking kids if they are experiencing these symptoms. If they are, they should be brought to an eye doctor for further evaluation."

Find additional tips on preventing [eye strain](#) in children [here](#), as well as information on [other eye conditions linked to increased screen time](#).

Provided by American Academy of Ophthalmology

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