

Insights

Is All This Screen Time Making Children's Eyes Worse?

Tips for preventing dry eye and other chronic eye conditions in children

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Even before the COVID-19 pandemic, children of

all ages were spending more screen time than ever before on cellphones, tablets, and laptops. Health professionals (often caregivers themselves) have needed to adopt a flexible attitude toward screen time, considering the families they serve are impacted so differently by the pandemic due to racial and economic disparities. Amid the recurring tough decisions about attending school in person or remotely, most parents and caregivers have found digital devices essential to their children's daily learning and entertainment.

Though the uptick in screen time is real (and unavoidable at times), many parents aren't sure what to do about it. In January 2021, a New York Times' headline, "[Children's Screen Time Has Soared in the Pandemic, Alarming Parents and Researchers](#)" went distressingly viral, warning about an "epic withdrawal" from technology as the world returns back to a more familiar place. The Times detailed that by May 2020, screen time for children aged 4-15 had doubled as compared to the same period in the year prior. Data from a tracking company called Qustodio indicated a continued month-by-month increase.

The longer kids have settled into a screen time-rich existence, the harder it is for their brains to adapt to changing circumstances and find similar joy in precious offline activities. Now that that remote school and a dearth of offline extracurriculars have persisted for more than a year, and even the [AAP](#) has encouraged flexibility, we all are feeling the impact of all that screen time.

And the effects of increased screen time can be serious – for children, too. Dry eye is common among older adults, but about five years ago, practicing optometrist Dr. Amy Nau noticed that kids were visiting her office with signs of dry eye.

“It’s becoming a real public health problem, and data shows it’s related to computer use,” said Dr. Nau, a researcher for 20 years, who has become proactive in screening and treating kids for this problem. “When I see a 17-year-old whose eyes look worse than someone who’s 65, that makes me very concerned about their ability to use a computer or wear contact lenses to function when they’re 50.”

What contributes most to this damage? It’s no secret that our eyes work extra hard when we use digital devices, and kids are more likely to not adhere to proper screen use guidelines. Prolonged periods of time staring at a screen that may be too big, too bright, or too close to our eyes can cause eye fatigue. Symptoms of eye fatigue, or eye strain, include dry and itchy eyes, blurred vision, headaches, or increased sensitivity to light. These symptoms are often temporary but can evolve into more chronic and severe eye conditions. Chronic dry eye is a condition that occurs when tears are not able to provide adequate lubrication for the eyes. The oil glands in the eyelids become clogged and inflamed, eventually leading to atrophy.

Here are tips for health professionals to encourage healthy screen viewing habits and support children’s eye health in the digital age.

Educate children and families about healthy screen viewing habits.

Children don’t naturally set boundaries for themselves and may not realize that long periods of screen time could be damaging their eyes. It is important to educate parents and caregivers on healthy habits for protecting both their own and their children’s eyes, as well as empower them to have ongoing conversations with kids about digital eye strain. Here are four recommendations that caregivers should teach their children – and model themselves.

- **The 30 x 30 x 30 Rule:** Every 30 minutes, look away from the screen for 30 seconds and focus on something at least 30 feet away. This technique helps keep the eyes moisturized and resets your focusing system. Families can encourage their children to practice this rule by setting timers or enabling software that temporarily shuts down their children’s devices every 30 minutes. Actively taking the time to blink also naturally exfoliates the eyelids and keeps the eyes clean.

- **Encourage good eye hygiene:** Along with dry eyes, not blinking enough can lead to eyelid irritation and inflammation. It's recommended that at age 10, children should start intentionally cleaning their eyelids when they take a shower to remove biofilms and dead skin from the surface of the eyelid. Covering eyes with a warm compress can also help the glands within the eyelid better produce tears.
- **Create a safe viewing environment:** Chronic exposure to bright light from screens can slowly damage the retinas in our eyes. Keeping the brightness down and sitting at least an arm's-length away from screens can prevent retina damage as well as eye strain. Families can also arrange the furniture in their homes to create distance from televisions and large monitors. Children and families should also avoid using digital devices in the dark.
- **Establish structured breaks from digital devices:** Whether school-related or leisure activities, limiting a child's use of digital devices can be challenging, especially after a year in quarantine. Parents and caregivers can set boundaries with their children on when screen time is allowed and establish "No screen zones," such as the bedroom at night or during meals at a table.

Blue light glasses are marketed as the solution to digital eyestrain, and they do reduce the blue light that comes from screens. If one is using devices at night, blue light exposure can interrupt normal sleep cycles. These glasses do not, however, address dry eye or binocular vision issues which form a significant component of digital eyestrain.

Screening for Eye Conditions

"Eye doctors can offer treatment and preventative care options for kids experiencing eye fatigue or symptoms of dry eye, as well as look into family history or other factors that contribute to chronic eye conditions," said Dr. Nau. "But there needs to be more awareness of this problem."

Dr. Nau has found that screening for eye fatigue and chronic eye conditions is both inexpensive and effective. In her own community, she worked with students from middle and high schools to administer a [Standardized Patient Evaluation of Eye Dryness \(SPEED\) Questionnaire](#), a brief survey for patients to share the severity and frequency of any symptoms they may be experiencing. If a student received a certain score after completing the evaluation, a referral was made to visit their optometrist.

For young children, screening and diagnosing dry eye can be especially challenging due to their potential difficulty articulating their symptoms. That is why it's important for parents to contact their eye doctor if they notice that their child is frequently scratching or rubbing their eyes, blinking more than normal, or showing signs of redness or irritation. Elementary schools can also

play a role in screening for eye fatigue, and with many more students poised to return to classrooms nationwide, perhaps some relief is in store.

“By engaging with community stakeholders and school nurses, we can deploy these screening forms a few times a year,” said Dr. Nau. “In schools, kids are checked for hearing, scoliosis, and eyesight, so talking with kids about eye symptoms and screen can help prevent dry eye. It’s never too early to intervene.”

The American Academy of Pediatrics offers additional recommendations for screen time based on age. Visit [Healthychildren.org](https://www.healthychildren.org) for more information.