



Blue light and screen time guide for parents and educators

Strategies to help maintain children's eye health amid COVID-19

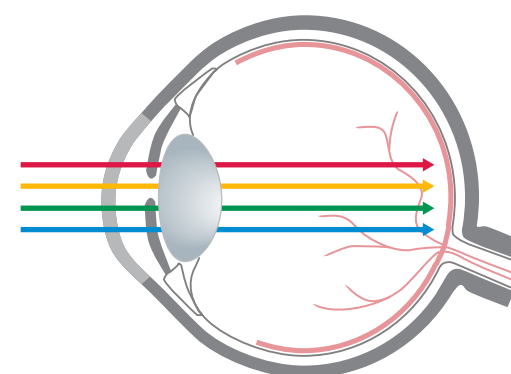


As schools and students continue to use digital devices and remote learning amid the persistent spread of COVID-19, parents should remember that good eye health is important for everyone. This is especially true for students, as 80% of what children learn is through their eyes.¹

Children may be at higher risk of digital eye strain and eye health issues related to excessive screen time, in part because their still-developing eyes generally allow for more high-energy blue light to reach their retinas.² Additionally, children may often hold digital devices closer to their faces than adults do, potentially leading to a higher amount of blue light exposure. As a result, excessive high-energy blue light may produce oxidative and phototoxic damage to cells in the cornea and retina of the eye.³

What is blue light?

All digital devices, such as smartphones and computers, emit “blue light,” which is a low wavelength, high-energy light that has the potential to damage the eyes over the long term.³



Visible light is transmitted to the retina from natural and artificial light sources, between the range of 400-700 nm.

Symptoms of too much screen time

Parents responding to a recent survey report that the most common symptoms of excessive blue light exposure from digital devices for their children are headaches (67%), blurred vision (56%) and dry eyes (49%).⁴ Part of that concern stems from the growing use of screen time for remote learning and during free time, with children spending an average of six hours per day on digital devices.⁵

The health impacts of overexposure to digital devices and blue light may contribute to:

- Dry, irritated eyes
- Trouble sleeping
- Blurred vision
- Reduced attention span
- Irritability and difficulty concentrating⁶

Helping maintain children's eye health

Healthy vision is supported by a holistic approach, including awareness, education and blue light mitigation solutions, together with exams to detect and treat vision problems. Some practical approaches to help encourage good eye health for children* are to:

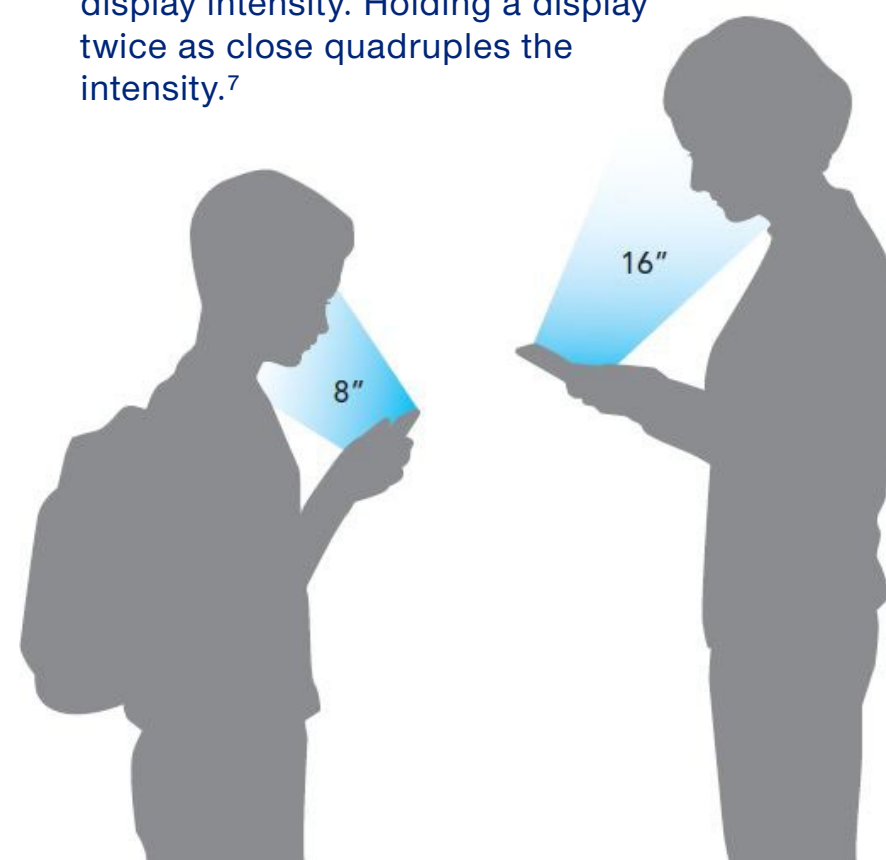
1. Keep computer screens at least 30 inches away from eyes.
2. Look for warning signs of eye health issues, such as squinting while looking at screens, discomfort or dizziness.
3. Promote comprehensive eye exams.
4. Consider using digital devices with built-in blue light filtration or add screen filters to help reduce blue light.
5. Consider adding a "student eye protection" option to the vision plan, helping provide coverage for blue-light-blocking eyewear.

Educators and parents praise comprehensive vision care

62%

of teachers ranked a vision insurance plan that includes blue light filtration solutions as No.1 in a recent survey.⁴

Children may be more exposed to display intensity. Holding a display twice as close quadruples the intensity.⁷



Some parents and educators report concern about blue light exposure

A recent survey of 436 parents and educators revealed:⁴

- 93% of parents and 96% of educators are “very concerned” to “somewhat concerned” about the impact of digital device screen time on children’s eyes.
- A vision insurance plan that includes blue light filtration solutions was ranked No. 1 by 62% of teachers in the survey. The benefits teachers most expect from blue light mitigating solutions include attention improvement for students (64%), improved peace of mind for educators (58%) and sleep improvement for students (54%).
- By providing blue light mitigating solutions for their children, primary benefits expected by parents include “long-term eye health” (69%) and “sleep and mood improvement” (60%).

Digital eye strain



6 hours

is the average amount of time children spend per day on digital devices.⁵

In addition to playing outside,

23% of children spend time playing on a digital device.⁸

20% of children watch television.⁸

Vision and learning



1 in 4

school-age children are affected by vision problems.⁹

65% of people are visual learners.¹⁰

93% of parents are concerned about the impact of screen time on children’s eyes.⁴

Myopia

Myopia or nearsightedness is the inability to see far off objects clearly, and it is on the rise.



Getting outside and away from digital screens may reduce the risk of nearsightedness.¹¹

41% of Americans are nearsighted, up from 25% in 1970.¹²

Product solutions that may help maintain eye health

Some new vision benefit programs** may offer a variety of options for supporting a healthier learning environment, including discounts for:

Laptop and computer monitors:

Built-in technology reduces blue light at the source while maintaining color integrity.

Screen protection: A filter is applied to a device to reduce blue light without changing the screen color or brightness.

Eyewear: Eyewear with anti-reflective coating may help prevent potentially harmful reflective glare and reduce the risk of digital eye strain.***



Parents and educators may consider products that meet industry standards for low blue light

UnitedHealthcare Vision offers guidance on display types from leading brands that meet blue light emissions, toxicity and color performance requirements – all guided by the latest health research and input from leaders in health care.¹³



Find out what UnitedHealthcare Vision can do for children's eye health in connection to screen time at eyesafe.com/uhc.

¹ College of Optometrists in Vision Development, <https://www.covd.org/page/learning>

² American Optometric Association, 2019,

<https://www.aoa.org/AOA/Documents/About%20the%20AOA/Get%20Involved/Blue%20Light%20Impact%20in%20Children.pdf>

³ International Journal of Ophthalmology, 2018, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6288536>

⁴ Eyesafe Screen Time Report, 2020, <https://eyesafe.com/uhc>

⁵ From a survey of more than 3,000 ParentTogether members (a national parent-led organization with over 2 million members) via Facebook Messenger from April 16-20, 2020,

<https://parents-together.org/survey-shows-parents-alarmed-as-kids-screen-time-skyrockets-during-covid-19-crisis/>

⁶ BMJ Open Ophthalmology, 2018, <https://www.researchgate.net/publication/324556803>

⁷ 20/20 Magazine, 2017, <https://www.2020mag.com/ce/blue-light-refocused-separating-science>

⁸ The Vision Council, 2019, <https://www.thevisioncouncil.org/blog/vision-council-shines-light-protecting-sight-and-health-multi-screen-era>

⁹ American Optometric Association, 2017,

<https://www.aoa.org/AOA/Documents/Practice%20Management/Clinical%20Guidelines/EBO%20Guidelines/Comprehensive%20Pediatric%20Eye%20and%20Vision%20Exam.pdf>

¹⁰ SSRN, 2011, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=587201

¹¹ Investigative Ophthalmology & Visual Science, 2007, <https://iovs.arvojournals.org/article.aspx?articleid=2183997>

¹² National Eye Institute, 2017, <https://www.nei.nih.gov/about/news-and-events/news/myopia-close-look-efforts-turn-back-growing-problem>

¹³ Eyesafe, 2021, <https://eyesafe.com/standards>

* The content is not intended to be a substitute for professional medical advice, diagnosis or treatment. Talk with your health care provider about any questions you may have regarding a medical condition.

** Coverage may be available to eligible beneficiaries with qualified vision plans underwritten or administered by UnitedHealthcare Insurance Company or its affiliates. Administrative services provided by MARCH® Vision Care Group, Inc. or their affiliates.

*** Pending availability.

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