



Does Screen Time Accelerate Myopia Progression?

The global pandemic has forced many children indoors causing a rapid rise in screen time. As screen time accelerates, so does concern among parents about the impact on their children's eyesight.

Screen Time & Myopia

A [new study](#) from *JAMA Ophthalmology* confirms parental concern about myopia during home confinement. Researchers recently analyzed nearly 200,000 school-based vision screenings among 125,000 children, ages 6–13, in Feicheng, China. The study shows that home confinement due to COVID-19 appears to be associated with a substantial myopic shift in young children, aged 6–8.¹ In fact, the prevalence of myopia (nearsightedness) sharply increased 1.4 to 3 times in 2020, compared with the previous five years. The authors note that younger children may be more sensitive to environmental changes, given they are in a critical period for eye growth and myopia development.¹

“There is a lot of buzz among eye care professionals about the *JAMA* study and parents of young children are definitely ready to have conversations about screen time,” says Justin Kwan, OD, FAAO, CooperVision Senior Manager of Myopia Management. “We know that the younger children are, the faster their myopia progresses and ultimately, the greater the risk.”²

Since some school-based vision screenings may not have been conducted in 2020 due to the pandemic, we could possibly see an uptick in children whose myopia accelerated over the long winter months spent indoors—a lifestyle factor in the development of myopia and its progression.

What You Can Do

As screen time surges and new research findings are published, we encourage parents to continue scheduling annual comprehensive eye exams and to keep an eye on behaviors related to screen time such as excessive time indoors and “near work” activities that may play a role in the development of myopia.^{3,4} To assess your child's risk of developing myopia, check out [CooperVision's myopia risk assessment tool](#).

Annual comprehensive eye exams are also important to evaluate the entire visual system, eye health, and catch myopia at the earliest time possible. We're proud to be certified to prescribe the Brilliant Futures™ Myopia Management Program with MiSight® 1 day myopia control soft contact lenses, the first FDA approved* product proven to slow myopia progression in children, aged 8-12 at the initiation of treatment.^{5†}



For more information or to schedule an appointment, feel free to contact Alameda Family Optometry at (323) 231-0005. We welcome new patients and look forward to hearing from you soon.

*Indications for use: MiSight® 1 day (omafilcon A) soft (hydrophilic) contact lenses for daily wear are indicated for the correction of myopic ametropia and for slowing the progression of myopia in children with non-diseased eyes, who at the initiation of treatment are 8-12 years of age and have a refraction of -0.75 to -4.00 diopters (spherical equivalent) with ≤ 0.75 diopters of astigmatism. The lens is to be discarded after each removal.

†Compared to a single vision 1 day lens over a 3-year period.

¹ Wang J, Li Y, Musch DC, Wei N, Qi X, Ding G, Li X, Li J, Song L, Zhang Y, Ning Y, Zeng X, Hua N, Li S, Qian X. Progression of Myopia in School-Aged Children After COVID-19 Home Confinement. *JAMA Ophthalmol.* 2021 Jan 14:e206239. doi: 10.1001/jamaophthalmol.2020.6239. Epub ahead of print. PMID: 33443542; PMCID: PMC7809617.

² Mutti DO, Hayes JR, Mitchell GL, et al. Refractive error, axial length, and relative peripheral refractive error before and after the onset of myopia. *Invest Ophthalmol Vis Sci.* 2007;48(6):2510-2519. doi:10.1167/iops.06-0562

³ Xiong S, Sankaridurg P, Naduvilath T, Zang J, Zou H, Zhu J, Lv M, He X, Xu X. Time spent in outdoor activities in relation to myopia prevention and control: a meta-analysis and systematic review. *Acta Ophthalmol.* 2017 Sep;95(6):551-566. doi: 10.1111/aos.13403. Epub 2017 Mar 2. PMID: 28251836; PMCID: PMC5599950.

⁴ Huang HM, Chang DS, Wu PC. The Association between Near Work Activities and Myopia in Children-A Systematic Review and Meta-Analysis. *PLoS One.* 2015 Oct 20;10(10):e0140419. doi: 10.1371/journal.pone.0140419. PMID: 26485393; PMCID: PMC4618477.

⁵ Chamberlain P, et al. A 3-year randomized clinical trial of MiSight® lenses for myopia control. *Optom Vis Sci.* 2019; 96(8):556-67.