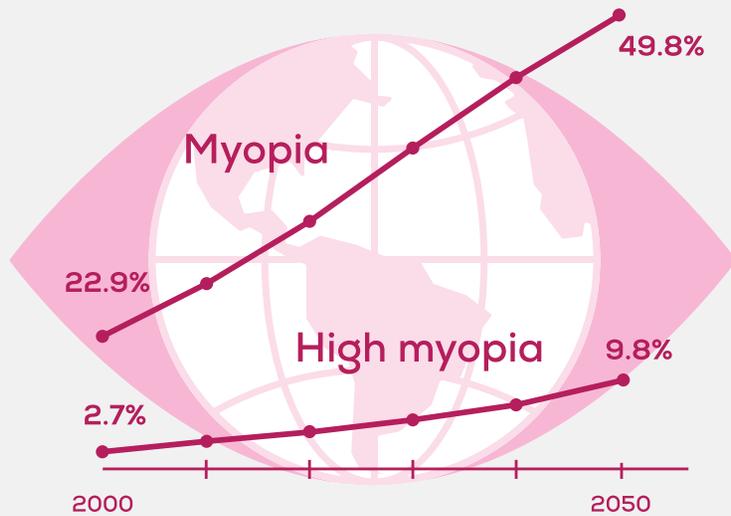


Putting myopia in focus

Understanding and managing
a global vision epidemic

IT'S TIME TO OPEN MORE EYES

A quickly growing vision issue



"Myopia: A Public Health Crisis in Waiting"; VISION Magazine Online; visionmagazineonline.co.za; January 30, 2020.

The global prevalence of myopia is steadily progressing¹

No longer possible to ignore, myopia is a worldwide epidemic—one of the most common vision disorders in the world.² Even in the U.S., myopia levels are higher than they were just two generations ago.³

MORE THAN
40%

of Americans are myopic⁴

Myopia will affect upwards of **52% of the world** population by 2050⁵

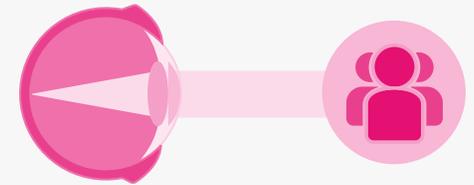
Up to 10% of myopia cases will become high myopia⁵

What is myopia?

Myopia, also known as nearsightedness, is a vision condition where close-up objects appear clear but distant objects appear blurry. It's a refractive error that occurs when the eye grows longer than it should, making it difficult for light to focus on the retina. The result: blurred vision.

NORMAL VISION

Light hits on back of retina to create clear image



MYOPIC VISION

Elongated eye creates shorter retinal focus, making distant objects blurry



Serious risks for increasing levels of myopia

When the eyeball becomes very long from front to back (high myopia), it's even harder for patients to see—and puts them at risk for serious eye health problems like detached retinas, cataracts, glaucoma and degenerative myopia, a leading cause of blindness currently affecting 2% of the world population.⁶

¹ "Myopia: A Public Health Crisis in Waiting"; VISION Magazine Online; visionmagazineonline.co.za; January 30, 2020. ² "A toolkit on how to implement MyopiaEd"; World Health Organization; who.int; 2022. ³ Stuart, A.; "Facing the myopia epidemic"; American Academy of Ophthalmology; aao.org; January 2020. ⁴ "Myopia (Nearsightedness)"; Cleveland Clinic; my.clevelandclinic.org; July 14, 2020. ⁵ "Reshaping care: New myopia management guidance released"; American Optometric Association; aoa.org; January 12, 2021. ⁶ "Myopia (Nearsightedness)"; Cleveland Clinic; my.clevelandclinic.org; July 14, 2020.



Myopia causes and signs

The exact cause of myopia is still unclear—but it's thought to be a mix of genetics and environmental factors. The culprit of its most recent upswing: close-up activities like time spent on laptops and phone screens.⁷

When does myopia first affect people?

Myopia typically first appears in school-aged children, worsens throughout adolescence and then stops changing in early adulthood.⁸ It can develop in adults, too, as a result of visual stress, diabetes or cataracts.⁹

SIGNS AND SYMPTOMS OF MYOPIA

Adults may have difficulty seeing a movie in a theater or driving, especially at night

In children, watch for excessive blinking, rubbing their eyes or holding objects close to their faces¹⁰

Squinting, headaches, eyestrain and fatigue



PRE VS. POST-PANDEMIC SCREEN TIME



49%

of kids are now spending **6+ hours online per day**, compared to **8.29% previously**¹¹

26%

of kids are now spending **8+ hours online per day** compared to **4% previously**¹¹

⁷McManes, A.; "Myopia and children: Is your child at risk?"; All About Vision; allaboutvision.com; medically reviewed March 2022. ⁸"Myopia (Nearsightedness)"; American Optometric Association; aao.org; accessed April 28, 2021. ⁹"Myopia (Nearsightedness)"; Cleveland Clinic; my.clevelandclinic.org; July 14, 2020. ¹⁰"Nearsightedness"; Mayo Clinic; mayoclinic.org; April 2, 2020. ¹¹"Survey Shows Parents Alarmed as Kids' Screen Time Skyrockets During COVID-19 Crisis"; Parents Together; parents-together.org; April 23, 2020.



Pediatric myopia is on the rise

It's important for children to receive regular vision care exams, no matter their age—but it's especially critical during the ages of 3-12, since that's when myopia is most often detected.¹²

Since there is no known cure, early myopia detection and intervention are key to slowing its progression.¹³

¹² "Myopia (Nearsightedness)"; Cleveland Clinic; clevelandclinic.org; July 14, 2020. ¹³ McMannes, A.; "Myopia (nearsightedness): Causes, progression and management"; All About Vision; allaboutvision.com; July 12, 2022. ¹⁴ Heiting, G.; "Eye Exams for Children: Why They're Important"; All About Vision; allaboutvision.com; updated April 21, 2021. ¹⁵ "Myopia (Nearsightedness)"; Cleveland Clinic; clevelandclinic.org; July 14, 2020. ¹⁶ "American Academy of Ophthalmology Leads Global Initiative to Address Worldwide Myopia Epidemic"; American Academy of Ophthalmology; aao.org; November 11, 2020.

WHEN SHOULD CHILDREN SEE THE EYE DOCTOR?¹⁴



- 6 months to 2 years: First comprehensive vision care exam ✓
- Age 3 ✓
- Age 5–6: Just before starting school ✓
- Annually: Throughout school years ✓

"Annual eye exams are a must for everyone but especially children. A child should get their first eye exam before the age of 2. The exam can identify children that have early nearsightedness and provide education to parents about treatments that can slow the progression of myopia."

John Lahr, O.D., FAAO

KIDS WITH MYOPIA

75%

of children with myopia are diagnosed between the ages of 3 and 12¹⁵



Kids with high myopia have a **50% greater risk of glaucoma**¹⁶



Kids with myopia have a **6x greater risk of retinal detachment and tears**¹⁶

Myopia diagnosis and treatment

Myopia can easily be diagnosed during a comprehensive vision care exam. During the exam, doctors will check the curvature of the eyes, cornea and lenses to measure how the eyes focus light.

Glasses or contacts can offer temporary vision correction, but there is no cure for myopia—but several approved treatments can slow its progression.

MISIGHT® MULTIFOCAL SOFT CONTACT LENSES



MiSight® multifocal soft contact lenses are one of the most effective ways to control myopia before it gets worse. They're proven to slow the progression of myopia in children ages 8–12 at the start of treatment.¹⁷

ORTHOKERATOLOGY

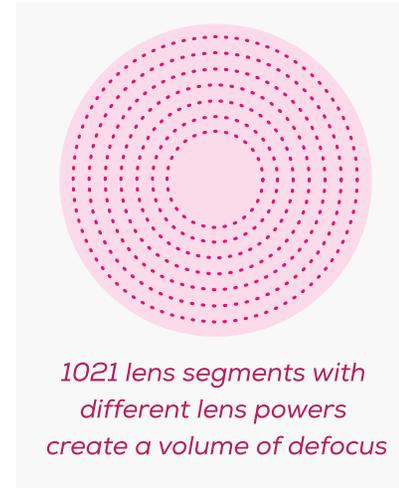
Also known as the “night-time lens,” orthokeratology (ortho-K) involves specially designed contact lenses worn while sleeping that temporarily reshape the cornea. In children and adolescents, these lenses has been shown to slow the progression of myopia.¹⁸



Ortho-k can slow myopic progression in children by 36–56%¹⁹

MYOPIA-CONTROL GLASSES AND CONTACT LENSES

These lenses treat myopia by correcting nearsightedness in the center of the lens, and then applying peripheral defocusing on the outer edges to help slow elongation.



1021 lens segments with different lens powers create a volume of defocus

In 2020, Essilor launched a new myopia control lens, Stellest™. A product of 30 years of research and study, the Stellest lens slowed the progression of myopia an average of 67%.²⁰ Currently available in many countries, the Stellest lens is in FDA review for the United States and has been designated as a “breakthrough device.”

REFRACTIVE SURGERY

Laser surgery such as LASIK can reshape the cornea, allowing light to be properly focused on the retina. The procedure does not slow axial length eye growth. It's **most effective correcting mild to moderate cases of myopia.**²¹ Typically, refractive surgery is reserved for people ages 18 and older, though eye doctors may recommend waiting longer until eye growth is complete.



¹⁷ “Kids should grow stronger. Their nearsightedness shouldn’t”; CooperVision; misight.com; accessed September 2022. ¹⁸ Heiting, G. OD; “Ortho-K and Corneal Refractive Therapy: Overnight Contacts to Correct Myopia”; All About Vision; allaboutvision.com; March 16, 2022. ¹⁹ “Effectiveness of Orthokeratology in Myopia Control”; ClinicalTrials.gov; update posted February 2021. ²⁰ “Essilor’s Game-Changing Stellest Lens Shown to Slow Down Myopia Progression in Children by More than 60% After One-Year Interim Clinical Trial”; Essilor; essilor.com; September 28, 2020. ²¹ Krietsch, B.; “LASIK and Myopia (Nearsightedness): What You Should Know”; WebMD; webmd.com; accessed July 2021.

EYEMED'S

Comprehensive myopia strategy

Detect

Help members recognize the signs of myopia and access vision exams that can spot problems early



Correct

Provide ample coverage for eyeglasses, contacts and LASIK



Manage

Help manage myopia progression and eye growth with specific treatments and lifestyle changes



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