

Answers to 8 Parent Questions About Myopia

What is myopia and why is it a problem?

- Myopia (my-OH-pea-ah), or nearsightedness, is a vision condition in which distant objects appear blurred – such as roadway signs, the board at school, or the television set across the room.
- In more severe myopia, both distant and near objects are blurry. Individuals with more severe myopia must bring objects close to their eyes to see those objects clearly if they do not wear glasses or contact lenses.
- The good news is that myopia can usually be corrected with glasses or contact lenses.

Why is myopia a problem?

- Uncorrected myopia can make it difficult for a child to learn, engage socially, or fully participate in activities.
- Severe myopia can also lead to sight-threatening complications such as glaucoma, cataract, and retinal detachment in addition to problems seeing clearly in adult life.

When and how does myopia develop?

- Research shows that myopia is triggered by a combination of genetic (inherited) and environmental (outdoor and physical activity) factors.
- How children play and study can increase the chances that they develop myopia or, if a child already has myopia, that it may become worse.

Studies have found

- Children who spend many hours doing close visual work, such as using electronic devices (computers, tablets, and cell phones), have a higher risk of developing myopia.ⁱⁱⁱ
- Children who spend time outside with exposure to sunlight may have a lower risk of myopia becoming worse.ⁱⁱⁱ

What are signs that my child may have myopia?

- Complaints that objects seen off in the distance are blurred.
- Squinting to see distant objects.
- Complaints about headaches when watching television or looking at distant objects.

Is my child at risk for developing myopia?

It is important to know your family eye and vision history because myopia is one of many types of eye diseases that can be inherited. For example, these children are more likely to develop myopia:

- Children with one or two parents who have myopia.^{ivvvi}
- Children who are of East Asian ethnicity (from countries including China, Hong Kong, Japan, Macau, Mongolia, North Korea, South Korea, and Taiwan).

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What can I do to help control myopia in my child?

A lot of research is happening now to better understand how to prevent the development of myopia in children. It is important to talk to your child's eye doctor about what you can do to help control myopia in your child.

- Encourage your child to spend time outside (without looking at a cell phone or other electronic devices).
 - We do not know the exact amounts of time but doing lots of near work and spending little time outdoors are concerns for developing myopia.
 - We suggest that children play outside for an average of 1 to 2 hours per day if possible, depending on where you live.^{vii}
 - Ask your eye doctor how long your child should be outside each day.
- Encourage your child to reduce the amount of time doing near work (e.g., holding devices and books close to the face).
 - Ask your eye doctor how long your child should do near work each day.

How do I find out if my child has myopia?

- Blurred vision when looking at an eye chart during a vision screening at school or during a medical exam is a clue that your child may have myopia.
- Your child should have an eye examination if your child shows signs of myopia, if you have concerns, or if your child does not pass a vision screening (conducted at school or during a medical exam).
- For the best vision results, follow the eye doctor's treatment plan.
 - If the referral to an eye doctor came from your school nurse, please ask the eye doctor for a copy of the eye examination results for the school nurse. This will allow the school nurse to support your child's treatment plan at school.
- An ophthalmologist (an eye doctor with a medical degree: MD or DO) or an optometrist (an eye doctor with an OD degree) can examine your child's eyes to find out if your child has myopia.^{viiiix}
 - The ophthalmologist or optometrist may prescribe eyeglasses (or contact lenses) to help your child see clearly or suggest other treatment.^{xixixiiiixiv}
 - As your child's eyes continue to grow, stronger lenses may be needed to correct blurred vision.
 - Ask your child's eye doctor about the style of eyeglasses or contacts that work best for your child. The doctor may have different recommendations for eyeglasses/contacts for everyday wear vs. safety eyewear worn during sports or other activities.

How can an eye doctor help my child if my child has myopia?

- Several possible treatments can help control myopia. Talk with your child's eye doctor about the following treatment options and what is best for your child:
 - Eyeglasses or contact lenses to help your child see clearly is almost always recommended. Ortho-K re-shaping contact lenses worn overnight may be helpful in slowing the progression of myopia.
 - Bifocal or progressive lenses or multifocal contact lenses may also be helpful in slowing progression.
 - Atropine eye drops used daily may also help decrease myopia progression.^{xxvixvixviii}

If you have more questions, please let us know at info@preventblindness.org

This document will be reviewed annually as new studies about, and treatment for, myopia are developed. For a list of sources and resources, please visit (<https://www.preventblindness.org/refractive-error-myopia-hyperopia-astigmatism>).

Rev April 2020

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RESOURCES

For more information on Myopia please visit:

Prevent Blindness:

<https://www.preventblindness.org/refractive-error-myopia-hyperopia-astigmatism>

<https://www.preventblindness.org/your-childs-glasses>

<https://www.preventblindness.org/your-childs-eye-care>

American Association for Pediatric Ophthalmology and Strabismus:

<https://engage.aapos.org/glossary/refractive-errors-in-children>

National Eye Institute:

<https://nei.nih.gov/health/errors/myopia>

International Myopia Institute

<https://www.myopiainstitute.org/>

YouTube Videos:

Please note that these links are for external sources and the content cannot be monitored by Prevent Blindness.

Myopia – What causes nearsightedness? (2017). Smart Learning for All. Retrieved from <https://www.youtube.com/watch?v=GLlcD9yzv48>

Understanding Myopia (Nearsightedness). (2013). Retrieved from <https://www.youtube.com/watch?v=Hwic8rKadd8>

Financial Assistance:

Visit <https://www.preventblindness.org/financial-assistance> to download fact sheets in English or Spanish from that page.

Finding Eye Care for yourself and your child in English and Spanish:

For assistance with eye examinations or eyeglasses:

English: https://www.preventblindness.org/sites/default/files/national/documents/fact_sheets/Financial_Assistance_IC03%2811.18%29_0.pdf

Spanish: https://nationalcenter.preventblindness.org/sites/default/files/national/documents/fact_sheets/Financial_Assistance_IC03%28Spanish%29_0.pdf

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End Notes

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