

# Myopia

## A HELPFUL REFERENCE SHEET

### Stats to remember:

Vision problems in children usually start between the ages of 6 and 12, so regular eye and vision care is important during the elementary school years.<sup>1</sup>

There is a 25% chance that a child will develop myopia if one parent is myopic. That number jumps to 50% if both are myopic.<sup>2</sup>

In the U.S., 40% of kids have myopia, compared to 20% three decades ago.<sup>3</sup>

6-12  
years old

25%  
chance

40%  
in U.S.

**Ocular health:** Vision is at least 20/20 or better without correction, and the eyes are disease-free.

**Juvenile onset myopia:** Myopia that develops in childhood is often called youth-or juvenile-onset myopia.

**High myopia:** An eye is considered to have high myopia if it requires -6.0 diopters or more of lens correction.

**Elongation of the eye:** Myopia results from abnormal axial elongation, meaning the elongating of the eyeball, which leads to a refractive error, blurring objects viewed at a distance.

**Myopia control:** The term used to describe specific treatments to slow the progression of nearsightedness in children.



[mymyopia.com](http://mymyopia.com)

An awareness campaign sharing important information on the childhood myopia epidemic to improve lifelong ocular health.

### 1 What is myopia?

Myopia, or nearsightedness, is an eye disease that causes poor long-distance vision.<sup>4</sup> In myopic eyes, the eyeball is either longer than normal, or the cornea is too curved, both causing some images to be blurry.<sup>5</sup>

### 2 What causes myopia?

Evidence shows that myopia is hereditary, or at least the tendency to develop myopia. If one or both parents are nearsighted, there is an increased chance their children will be nearsighted.<sup>6</sup>

Environmental risk factors include time spent doing close work, such as computer work or reading, increased screen time and not spending enough time outdoors also plays a role in the development of myopia.<sup>7</sup>

### 3 How can I tell if my child has myopia?

Vision problems can be subtle, especially in children. Myopia usually develops in childhood, so observe whether your child sits too close to the television, has frequent headaches, squints to read and rubs their eyes. Worsening school or athletic performance, or withdrawal from those activities, could indicate a vision problem.<sup>8</sup>

### 4 Does myopia cause other complications?

Myopia is categorized as mild, moderate or high severity, depending on the amount of correction needed. The term high myopia generally used to describe nearsightedness of -5.00 to -6.00 D or higher.<sup>9</sup> People with high myopia have an increased risk of retinal detachment, cataracts, myopic degeneration, and glaucoma.<sup>10</sup>

### 5 How is myopia treated?

Traditional glasses and contact lenses can help children to see more clearly but do not slow down the progression of myopia. Today, the FDA has approved soft contacts to slow the progression of myopia. Hard contacts worn overnight to reshape the eye as well as other pharmacologic interventions that are in development are not yet FDA approved.

### 6 What can I do today to slow the progression of myopia?

An actionable step is to increase time outdoors as sunlight exposure lowers the chances of nearsightedness in children.<sup>11</sup> When doing close work, such as working on a computer or mobile device, encourage frequent breaks to focus on objects farther away. The America Optometric Association offers the 20-20-20 rule: take a 20-second break to view something 20 feet away every 20 minutes.<sup>12</sup>

Your myopia dictionary:



References: 1. <https://share.upmc.com/2017/11/myopia-in-children/> 2. Jones, et al, IOVS 2007 3. <https://www.aoa.org/newsroom/myopia-rates-on-the-rise-syv> 4. <https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/refractive-errors> 5. <https://www.aoa.org/patients-and-public/eye-and-vision-problems/glossary-of-eye-and-vision-conditions/myopia> 6. <https://www.aoa.org/patients-and-public/eye-and-vision-problems/glossary-of-eye-and-vision-conditions/myopia> 7. <https://www.aoa.org/newsroom/news-releases/detail/is-too-much-screen-time-harming-childrens-vision> 8. <https://share.upmc.com/2017/11/myopia-in-children/> 9. <https://www.allaboutvision.com/conditions/myopia-faq/high-myopia.html> 10. <https://www.managemyopia.org/all-about-myopia/long-term-impact-of-un-treated-myopia/> 11. <https://www.aoa.org/editors-choice/sunlight-exposure-reduces-myopia-in-children> 12. <https://www.aoa.org/documents/infographics/SYMM2016Infographics.pdf>

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