SCIENCE & WELLNESS

The Easiest Thing You Can do to Improve Kids' Eyesight

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Have you noticed that more and more people are wearing glasses these days? Throughout the world there is a nearsightedness, or myopia, epidemic. This condition is when individuals need corrective lenses to see objects far away. The blurry vision is the result of the eye growing too long for distant rays of light to focus accurately on the back of the eye. Myopia can potentially lead to serious eye diseases later in life, such as retinal detachment or degeneration.

It is estimated that about one-third of the world's population are nearsighted. Nearly half of young adults in the United States and Europe are nearsighted, which is twice the amount from a half century ago. For years, researchers have been trying to identify the reason for the rise in vision problems. Could it be all the computers, video games, and texting? Although that is the most obvious culprit, scientists have now found a fascinating link between the amount of time children spend outside and their eyesight.

Scientists reviewed data for nearly 5,000 children over 20 years as part of the Collaborative Longitudinal Evaluation of Ethnicity and Refractive Error (CLEERE) Study funded by the National Eye Institute. They made the following conclusions:

- If a child has two nearsighted parents, the hereditary genetic effects increase the child's chances of needing corrective lenses to about 60 percent if they spent little time outdoors.
- More time outdoors, about 14 hours per week, can nearly remove genetic risk, lowering the chances of needing corrective lenses to about 20 percent (the same chance as a child with no nearsighted parents).
- Time spent outdoors has little to no effect on how prescriptions change over time in children who are already nearsighted, although more studies are underway to explore this issue in more detail.

In <u>another review</u> that was presented at the annual Meeting of the American Academy of Ophthalmology, researchers at the University of Cambridge examined eight studies that encompassed data for 10,400 children and adolescents. They found that each additional hour spent outdoors per week could reduce the risk of developing myopia by up to two percent.

Finally, a research team in China looked at the <u>effect of prolonged exposure to sunlight</u> on eye health in 1,900 schoolchildren. The children were broken into two groups; the first group spent more time outdoors than the second group. Scientists found that the children who spent more time outdoors had a 23 percent reduced risk of developing myopia over a three-year period. Researchers also discovered that of the children who developed myopia, those who spent more time outdoors had less vision issues than those who did not.

Researchers have several theories to explain the connection between vision and time spent outdoors. Some believe that the outdoors provides a protective effect on our children's eyes as the children grow. Others talk about how the exposure to more ultraviolet B radiation from the sun leads to a boost in vitamin D production that may improve eye health from a biochemical standpoint. Another theory is that children who are outside often tend to be more physically active, and that movement could protect the body. Finally, another idea is that bright light slows abnormal myopic eye growth by stimulating a release of dopamine from cells in the retina. Dopamine then causes slower, normal growth of the eye that is not impacted by myopia. What can parents do to take advantage of this new information?

Check vision annually

Nearsightedness typically begins during elementary school, so please be sure to have your children's vision checked annually at school and/or at the pediatrician's office. If an issue is identified, then you will be referred to a pediatric ophthalmologist for a more thorough exam.

Limit screen time

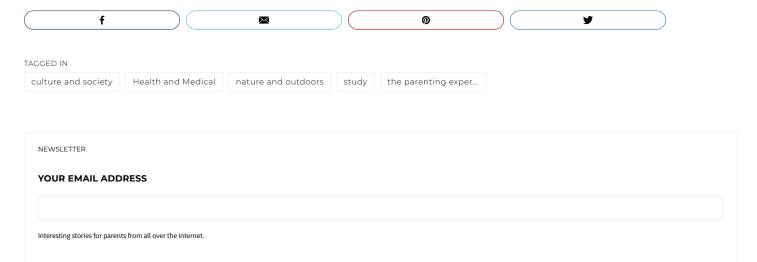
Whether is it natural light or the damaging effects of the electronics themselves, these studies give us more reason to limit screen time and send our kids outdoors.

Encourage daily outdoor play

Children are spending less time outdoors these days because of a number of factors. It is up to us to schedule fun outdoor activities throughout the week. This can include organized sports teams, free play with friends and neighbors, family bike rides, trips to the park, gardening, or even setting up a spot outside to do homework. Even though the goal is to have our children's eyes exposed to more natural sunlight, it is still critical that we protect them with sunglasses and sunscreen.

Increase light exposure indoors

If the weather is not conducive to head outdoors, consider using daylight-spectrum indoor lights to minimize myopia. These are the same types of lights used to address seasonal affective disorder (SAD).



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