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Digital Detox, Natural Defense: AstaReal Astaxanthin for Kids!

A landmark study published in Advances in Therapy (2024) evaluated the effects of AstaReal® Astaxanthin supplementation on digital eye strain in children aged 10 to 14 years. In this clinical trial, 64 participants received a daily dose of 4 mg of AstaReal® Astaxanthin over a period of 84 days.[1]

In our digital era, characterized by increased screen time and decreased outdoor activity, astaxanthin could play a crucial role as a dietary intervention supporting pediatric visual performance.

Digital Generation: Impact of Screen time on Children's development.

This widespread use of visual display increases stress on the eyes, which leads to a complex ophthalmic and psychophysical condition called computer vision syndrome (CVS). Symptoms of CVS include eye strain, blurred vision, dry eyes, and itchy eyes. CVS may also affect myopic progression, sleep pattern, brain cognitive function and overall visual health in children.

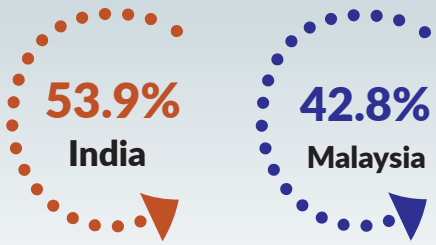
The American Optometric Association has indicated that as little as two hours of screen time per day may be sufficient to trigger CVS symptoms.

A study published in JAMA Pediatrics in November 2021 reported a 2X non-school screen time of 7.7 hours in a group of 12- to 13-year-old children after versus before Covid-19 pandemic.[2]

Prevalence of CVS and the physiological factor causing it

The prevalence of CVS in India among children & teenagers is 53.9%, while in Malaysia it is 42.8%.A European study showed that 23% of Swedish school children experience eye fatigue due to playing video games excessively. [3]

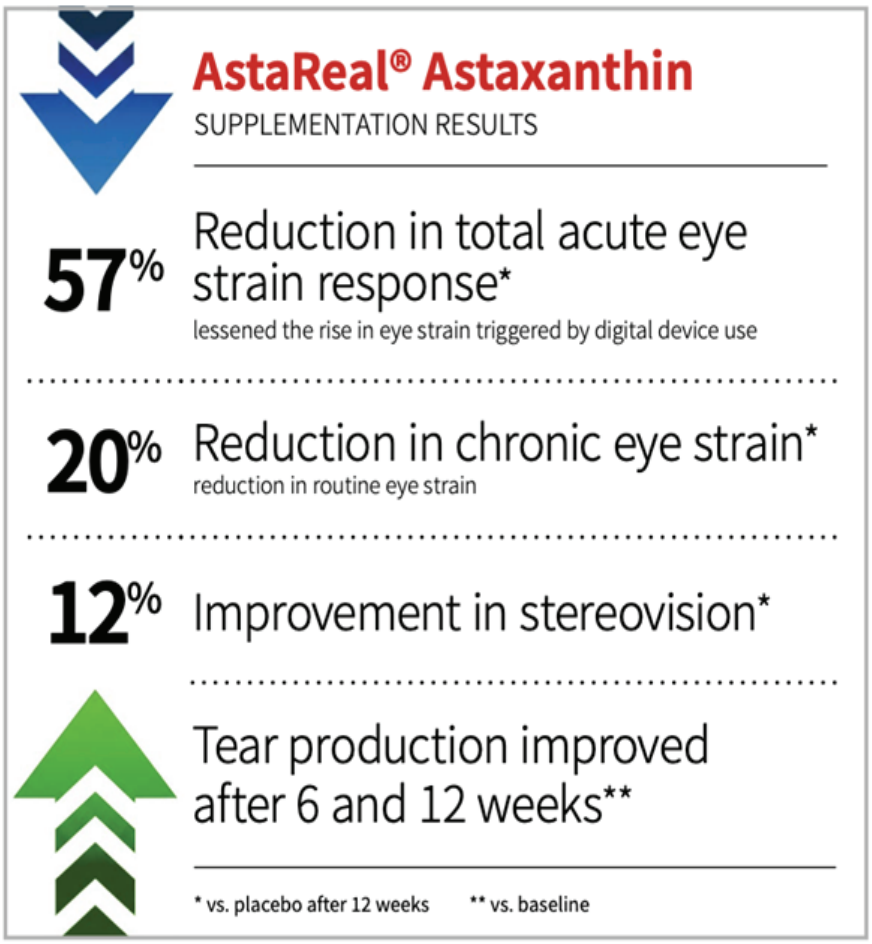
CVS Prevalence in



Dry eye is reported to be the primary cause of CVS because excessive screen time can lead to reduced blinking and increased corneal exposure resulting in reduced lacrimation.[4]

Quotes from healthcare practitioners

1. "I strongly advocate for incorporating dietary strategies that help safeguard and enhance visual health in younger individuals." - Dr. Jeffry D. Gerson, O.D., Optometrist.[5]
2. "The resulting myopic progression, dry eye symptoms, and visual discomfort are more prevalent than many realize," - Dr. Milton Hom, Optometrist & Independent Researcher.[5]
3. "While digital engagement is undeniably the future, antioxidant supplementation can play a supportive role in alleviating eye strain and fatigue." - Dr. Sayali, Paediatric Ophthalmologist.



Study Design

Type: Randomized, double-blind, placebo-controlled trial

Participants: 64 school-aged children (10–14 years)

Duration: 84 days

Dose: 4 mg/day AstaReal® softgel

Inclusion Criteria:

- ≥4 hours of daily digital device use
- Mild to moderate CVS symptoms (CVS-Q score ≥8 and <19)
- Visual acuity of 20/20 and specific accommodation/ amplitude range

Figure 1: Key findings from astaxanthin (AstaReal®) intervention study on CVS in children. Adapted from "Ocular Nutrition for a Digital Generation," Open Access Government, 2024, https://www.openaccessgovernment.org/article/ocular-nutrition-for-a-digital-generation/193991/.

This study indicated that a daily supplementation of 4 mg astaxanthin (AstaReal®) may serve as an effective solution for managing both chronic and acute asthenopia associated with CVS in school-aged children. Significant improvements were observed in subjective symptoms of eye strain, as measured by the CVS-Q and VFLS scales, along with enhancements in objective markers such as stereopsis and pupillary light reflex. Schirmer I test results also suggested improved tear production during prolonged screen use. While earlier studies have shown benefits of astaxanthin on ocular endpoints in adults after 14–28 days, this study found a notable improvement in CVS-Q scores in children as early as day 14. This is notably faster than lutein and zeaxanthin, which showed reductions in eye strain and fatigue (measured via VAS) only after 90 days, with no significant change at the 42-day mark. Astaxanthin's rapid onset of action may be attributed to its distinct mechanisms, including antioxidant and anti-inflammatory activity, mitochondrial support, and enhanced ocular blood flow. Collectively, these findings support astaxanthin as a promising dietary intervention to enhance accommodative resilience and visual performance in children exposed to prolonged digital device use.[1]

References:

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5. Open Access Government. Ocular nutrition for a digital generation [Internet]. 2024 Apr 22 [cited 2025 Jul 7]; Available from: https://www.openaccessgovernment.org/article/ocular-nutrition-for-a-digital-generation/193991/.

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