

## <u>Conclusive Evidence Proves Screens</u> <u>Destroy Your Eyes - Part 2</u>

## Melatonin's Role in Myopia

Melatonin can be synthesized in your eye tissues including the lens, retina and cornea, which have melatonin receptors, all of which hints at melatonin's importance for regulating eye processes. Several studies have also associated myopia with poor quality sleep, insufficient hours of sleep, late bedtime and delayed melatonin circadian timing, which further suggests melatonin plays a role — although the extent or precise nature of that role is still unclear.

Studies confirm two major behavioral risk factors for childhood myopia incidence and progression, namely education and insufficient outdoor time, have been confirmed across many studies. Lately, emerging evidence from several studies has been accumulating for the role of sleep in childhood myopia. Several studies have associated more myopia with problematic sleep. Additionally, a higher concentration of melatonin, the hormone that initiates sleep, was identified among myopic individuals in the morning compared to non-myopes. The importance of a regular light-dark cycle or circadian rhythm on the normal development of the eye was noticed early in the 1950s and has been endorsed by many later studies. A recent study found significant differences in refractive error and axial length diurnal changing patterns between late versus early sleepers, suggesting a connection between poor sleep and myopia through disrupted ocular rhythms . Although outdoor time is a well-established protective factor against childhood myopia, the mechanisms underlying its protective effect are not well understood. Taking sleep into consideration may offer a new perspective. Outdoor activities can produce better sleep as it promotes the regulation of melatonin secretion, leading to regular sleep onset in children

## Lutein Protects Against Myopia and Other Eye Diseases

Lutein is another nutrient that is really important for eye health and helps to protect against myopia. In one 2020 study, subjects with the highest lutein concentrations were found to have a 40% reduced risk of nearsightedness. An earlier study, published in 2017, found people with the highest plasma lutein concentrations had a 43% lower risk of myopia.

Lutein also helps ward off age-related macular degeneration, cataracts, glaucoma and other eye diseases. Lutein concentrates in your macula, which is the part of your retina responsible for central vision. It's also found in your lens.

Importantly, lutein is very efficient at filtering out blue light — the type that comes from cellphones, computers, tablets and LED lights. Blue light induces oxidative stress in your eyes, which increases your risk of macular diseases. Lutein, however, acts as a shield against it.

Your body cannot make lutein, so you must get it from your diet. Following are 10 foods that are particularly rich sources of lutein: Dark leafy greens, carrots, broccoli, egg yolks, red and yellow peppers, sweet corn, avocados, raspberries, cherries, paprika.

As lutein and other carotenoids are fat-soluble optimize absorption by consuming it along with a source of healthy fat, such as coconut oil or grass-fed butter. Because organic, pastured egg yolks contain fat, they're among the healthiest sources of lutein.

To be continued...

## Soil Lovers say: Avoid Age-related Macular Degeneration, Cataracts And Glaucoma

 ${\it Ref: https://articles.mercola.com/sites/articles/archive/2023/05/04/excessive-screen-time-myopia.aspx}$ 

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