

The myopia epidemic: Blame computers not phones for short-sightedness, researcher says

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A new study from The University of Western Australia has found the world is experiencing a myopia (short-sightedness) epidemic, and the main cause is computer screens rather than mobile phones or tablets.

Senior research fellow Samantha Sze-Yee Lee from the Lions Eye Institute used data from the Raine Study collected from 600 [young adults](#) to discern the types of digital screens that contributed to the development of myopia.

Dr. Lee found that short-sightedness worsened faster in those who reported six or more hours per day of computer usage compared to those with low computer use, while time spent on mobile phones did not have any effect.

"The reason for this difference may be due to a phenomenon called 'peripheral defocus,'" Dr. Lee said.

"When you look at your [mobile phone](#), everywhere in our peripheral vision, with the exception of the small phone screen, is further away and relatively blurred."

"The brain registers things are generally far away, and there is no need for the eye to become more short-sighted."

"When you focus on a large screen such as a desktop computer, more of our [peripheral vision](#) is taken by the screen."

"The brain sees that more short-distance work is involved, triggering the eyes to become more short-sighted."

Myopia is associated with an increased risk of future eye problems, such as glaucoma and [retinal degeneration](#), so understanding how our [modern world](#) affects our risk is important.

"In this day and age, it is almost impossible to avoid digital screens," Dr. Lee said.

"Mobile phones can easily be used outdoors, as opposed to laptop and desktop computers, and spending more time outdoors is known to be protective against myopia."

"It is hoped the findings will help scientists develop techniques to mitigate the detrimental impact of computer screens on eyesight."

Based in Perth, Western Australia, the [Raine Study](#) is one of the largest and longest-running studies of human health from pregnancy through childhood, adolescence, and adulthood to be carried out anywhere in the world.

More information: Raine study: rainestudy.org.au/

Provided by University of Western Australia

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