

Risks to children's eyesight and general health linked to increased screen time

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A new study shows that children's digital screen time has increased significantly during the COVID-19 pandemic, resulting in potential risks to physical health.



Vision experts at Anglia Ruskin University (ARU) have expressed concerns that this could affect children's eyesight and general health, with several conditions linked to an increase in screen time

The COVID-19 pandemic caused an unprecedented move to <u>remote</u> <u>learning</u>, with many countries closing their schools. Students were left to rely on <u>digital devices</u> to continue with their education.

The review paper, published in the *Journal of School Health* and led by Anglia Ruskin University (ARU), examined research studies carried out worldwide during the pandemic, and the findings show a consistent picture of increased digital screen time for children and adolescents.

In Canada, 89% of parents admitted their children were exceeding the two-hour daily guidelines set by the country's health authorities. In Germany, screen time had increased by approximately an hour a day. In Chile, a study found screen time among toddlers and pre-school children had almost doubled to more than three hours per day, while in Tunisia researchers reported an increase of 111% in total screen time for children aged 5–12.

Among the risks to eye health associated with the use of digital devices are <u>eye strain</u>, unstable binocular vision (using both eyes adequately to create a single visual image), uncorrected refractive error and dry eyes.

The review also reported that children and adolescents often use several devices at once, for example to browse <u>social media</u> on their phone while watching content on another device. Switching between devices increases the strain on the eye by 22%, as this entails switching distances between different devices, forcing the eyes to adjust.

Increased screen time can also lead to neck and shoulder strain, increases the amount of time spent sedentary, and is also associated with



overeating, potentially resulting in health issues such as obesity.

Lead author Professor Shahina Pardhan, director of the Vision and Eye Research Institute at Anglia Ruskin University (ARU), said:

"It is really important to be aware of the potential risks to children's short and long-term eye and <u>general health</u>. It is essential that devices are used appropriately and that activities away from digital devices are encouraged, such as playing outdoors.

"Schools can make sure time spent on digital devices is maximized for learning and less digital time is encouraged for other activities. Governments should work with schools to help shape home-based learning guidelines that encourage creative learning away from devices, including promoting other types of activities and frequent screen breaks."

Co-author Dr. Robin Driscoll said:

"We have been very fortunate that children have been able to use technology to fill in for the absence of in person teaching during the pandemic. However, we must be aware of the risks to their <u>physical</u> <u>health</u> as a result of this increased <u>screen time</u>.

"Through increasing awareness of the risks associated with high levels of digital screen use and sharing strategies to reduce the <u>negative effects</u>, teachers and parents should be encouraged to enhance the health and wellbeing of children and adolescents in the pandemic and beyond."

More information: Shahina Pardhan et al, Risks of Digital Screen Time and Recommendations for Mitigating Adverse Outcomes in Children and Adolescents, *Journal of School Health* (2022). DOI: 10.1111/josh.13170, <u>onlinelibrary.wiley.com/doi/10.1111/josh.13170</u>



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