

## Researchers at Australia & Korea investigate effect of COVID-19 virus on vision

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**Whether the COVID-19 virus can affect vision and depth-perception of those infected**



A study, co-led by Australia-based Griffith University's Menzies Health Institute and South Korea's Center for Convergent Research for Emerging Virus Infection, Korea Research Institute of Chemical Technology, aims to understand how SARS-CoV-2 affects the eyes and whether it could serve as a virus infection route.

The study found that the eyes and the trigeminal nerves are susceptible to the virus and that (in animal models) SARS-CoV-2 can infect the eye through the respiratory tract, via the brain.

Principal Research Leader and co-lead author Professor Suresh Mahalingam said the virus can begin to affect vision when inflammation of the optic nerves, abnormal fluid build-up, and immune cell infiltration cause the retina to get thicker.

"The virus can infect the eye through nerve tissues at the back of the eye that play a role in the visual aspects of the eye and sending signals for visual purposes," Prof Mahalingam said.

Griffith University PhD student Ng Wern Hann said that while a lot of COVID-19 research has been focused on respiratory infection, particularly in the lungs and nasal region, there has not been much focus on the eyes.

The findings, published in *Nature Communication*, give new insights into COVID-19 disease and may facilitate the development of treatment strategies for patients.