

East Asians short-sighted for snubbing outdoors: study

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Snubbing the outdoors for books, video games and TV is the reason up to nine in ten school-leavers in big East Asian cities are near-sighted, according to a study published on Friday.

Neither genes nor the mere increase in activities like reading and writing is to blame, the researchers suggest, but a simple lack of sunlight.

Exposure to the sun's rays is believed to stimulate production of the [chemical dopamine](#), which in turn stops the eyeball from growing elongated and distorting the focus of light entering the eye.

"It's pretty clear that it is bright light stimulating dopamine release which prevents [myopia](#)," researcher Ian Morgan of the Australian National University told AFP of the findings published in The Lancet medical journal.

Yet the average primary school pupil in Singapore, where up to nine in ten [young adults](#) are myopic, spent only about 30 minutes outdoors every day -- compared to three hours for children in Australia where the myopia prevalence among children of European origin is about 10 percent.

The figure in Britain was about 30 to 40 percent and in Africa "virtually none" -- in the range of two to three percent, according to Morgan.

More than other groups, children in [East Asia](#) "basically go to school,

they don't go outside at school, they go home and they stay inside. They study and they watch television," the scientist said.

The most myopic school-leavers in the world are to be found in cities in China, Taiwan, Hong Kong, Japan, Singapore and South Korea, where between 80 and 90 percent were affected.

Of these, 10 to 20 percent had a condition called high myopia, which can lead to [blindness](#).

"Most of what we've seen in East Asia is due to the environment, it is not genetic," said Morgan, contrary to the common belief 50 years ago.

The researchers, collating the findings of studies from around the world, stressed that being a bookworm or computer geek does not in itself put you at risk.

"As long as they get outside it doesn't seem to matter how much study they do," explained Morgan.

"There are some kids who study hard and get outside and play hard and they are generally fine. The ones who are at major risk are the ones who study hard and don't get outside."

The scientist said children who spent two to three hours outside every day were "probably reasonably safe". This could include time spent on the playground and walking to and from school.

"The amount of time they spend on computer games, watching television can be a contributing factor. As far as we can tell it is not harmful in itself, but if it is a substitute for getting outside, then it is," said Morgan.

He said ways must be found to get children to spend more time in

reasonably bright daylight without compromising their schooling.

"It is going to require some sort of structural change in the way a child's time is organised in East Asia because there is so much commitment to schooling and there is also a habit of taking a nap at lunchtime, which is from our perspective prime myopia prevention time."

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