New spectacle lens puts the brakes on myopia

BY SIA LING XIN

A NEW type of spectacle lens, which can slow down the rate at which short-sightedness worsens in children, is now available here.

The lens, called MyoVision, has been shown in a study to slow the progression of myopia in children aged six to 12 years by 30 per cent on average.

For example, this means that a child who wears spectacles with the lenses will have his degree of myopia increase by 35 degrees in a year, instead of by 50 degrees for children wearing spectacles with normal lenses.

Myopia, which cannot be cured, occurs often when the eyeball grows too long, resulting in the eye not being able to see distant objects clearly.

More children here become short-sighted, and at a faster rate, than children elsewhere.

About four in five aged 18 years here are myopic, double the number in the United States. Myopia rises by 80 to 100 degrees a year for those aged six to 10 years here, higher than the 50 degrees for those in the US.

The lens was developed by ophthalmic-product provider Carl Zeiss Vision, while the study was conducted by Australia-based Vision Cooperative Research Centre (CRC).

A conventional spectacle lens is designed such that it corrects a wearer's central vision, but not the peripheral vision.

In a bid to "sharpen" the blurred peripheral images, the eyeball will elongate and increase the myopia, said Professor Brien Holden, the chief executive of Vision CRC, who led the study.

The new lens is designed to correct central vision and project peripheral images so that the eyeball will no longer strain to elongate itself, he said.

This would reduce the rate of progression of myopia, the CEO added.

It takes about half a year for the effects of the lens to be apparent, Prof Holden said.

The lens was tested as part of a two-year trial, which started in 2007 and involved 800 myopic children – 700 from China and 100 from Australia – aged six to 14 years.

Under the trial, 50 children used one of 14 treatments for myopia developed by Carl Zeiss Vision – eight types of spectacle lenses, including this new one, and six types of contact lenses.

The remaining 100 children wore normal spectacles.

Besides MyoVision, two other treatments were found to be effective, and Zeiss is looking into commercialising them later.

Dr Koh Liang Hwee, an optometrist in private practice, said that MyoVision provides a "non-invasive and risk-free way to address myopia in children".

Singapore Management University professor in information technology Michelle Cheong got her 10-year-old son started on MyoVision lenses two weeks ago, after hearing about it from friends.

She said: "There is no harm in trying just to see if it works. It does not need surgery and is quite simple to use."

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HELPDESK 我的字典
Myopia: 近视 jìn shì
Peripheral: 边缘的 biān yuán de
Strain: 费力 fèi lì
Optometrist: 验光师 yǎn guāng shī