

A life 'lens' ordinary

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Nearly one third of Down's syndrome children who wear bifocal lenses to help them focus accurately may only need to wear them for two years, according to new research from Cardiff University.

The Cardiff School of Optometry and Vision Sciences' Down's Syndrome Research Unit has studied the reasons for poor focussing among children with Down's syndrome. They found that a third of the children in the study who adopted bifocals to ease difficulties in focusing on near work, were able to return to ordinary glasses after an average of two year's wear.

Children with Down's syndrome are much more likely than ordinary children to have eye and vision problems. Whereas only between five and eight per cent of ordinary children of primary school age need spectacles, approximately 60 per cent of children with Down's syndrome need them. Other more common defects are squints (eye-turn), poor focusing and reduced detail vision.

Dr Maggie Woodhouse, who is leading the Bifocal Study funded by The Health Foundation says the findings are highly significant and unexpected: "Our study provides further evidence in support of more wide-spread use of bifocal lenses for this group of young people.

"We found that before bifocal wear, Down's syndrome children have a focusing problem not because they cannot focus but because they do not focus. More specifically, the children accommodate much more accurately through their bifocals than do the control children through

their ordinary lenses. Surprisingly, the children with bifocals also accommodate more accurately when looking over the top of their bifocals through the ‘distance’ part of the lens. This suggests that the bifocals are ‘teaching’ the children to use their own focusing ability.

“Although we do not yet know the explanation for this, our research gives us important information about what to look for to explain this problem.”

Some clinicians routinely prescribe bifocal spectacles for children with Down’s syndrome, namely in Scandinavia and Canada, and find that the children comply well with the wearing of these glasses, as well as benefiting visually from wearing them. In the UK, bifocals are not prescribed commonly, and there have been no controlled trials examining the effects of these bifocal corrections on near functions or educational performance.

Dr Woodhouse continues: “Much of our work has already led to children with Down’s syndrome being able to reach their full visual potential. This latest research demonstrates how important bifocal wear is to the children, and emphasises the need for bifocals to be a central part of practice protocols within healthcare.”

Source: Cardiff University

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