

New understanding of Down's syndrome eyesight

New research into the structure of the eye in people with Down's syndrome has found significant differences from the norm. It is well known that people with Down's syndrome are more likely to suffer from eye conditions such as amblyopia (lazy eye), near or long-sightedness, and an increased risk of cataracts. This research demonstrates that Down's syndrome sufferers often have problems with both the lens of the eye and the cornea and, despite correction through the use of spectacles, often fail to achieve optimum visual acuity. The European Council of Optometry and Optics (ECOO) calls for patients with Down's syndrome and their carers to ensure that vision needs are regularly monitored.

A study carried out by Drs Julie-Anne Little and Kathryn J Saunders of the University of Ulster and Dr J Margaret Woodhouse of Cardiff University and published in *Optometry and Vision Science* (the journal of the American Academy of Optometry) has looked into the connection between corneal power and astigmatism in Down's syndrome.

Looking at a group of 29 Down's Syndrome children and comparing them with a control group of 68 children of a similar age, the study found high levels of refractive error (poor sight), including astigmatism, in a significant percentage (59%) of the Down's Syndrome children as opposed to 28% of the control group. 48% (versus 1% in the control group) were long-sighted, 10% (25%) short-sighted and 48% (6%) had astigmatism.

The report calls for further research into the connection between the ocular structures of the eye in Down's syndrome children and functional vision. The European Council of Optometry and Optics (ECOO) calls for Down's Syndrome sufferers to have regular sight tests so that they can be given the best possible correction for their needs. Wolfgang Cagnolati, President of ECOO, said "These are among the most vulnerable of our society. It is important that their carers should be aware of the increased risk that Down's syndrome sufferers have of eyesight problems. Proper care can bring a

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great improvement in vision to a group of people who find it difficult to recognise and articulate their own needs.”

Notes to editors:

- Corneal Power and Astigmatism in Down Syndrome was published in Optometry and Vision Science Vol 86 No.6
- The European Council of Optometry and Optics is the European organisation which represents the interests of optometrists and opticians from 30 countries. It aims to promote eye health to the public across borders and to harmonise clinical and educational standards of optometric and optical practice throughout Europe.

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