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[Queen's University Belfast](#)

New supplement may help slow sight loss in elderly

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Queen's University Belfast academics have helped develop an antioxidant supplement which may slow down sight loss in elderly people.

The supplement may help those affected by the leading cause of blindness in the Western World, a five-year research programme has found.

Professor Usha Chakravarthy, from Queen's Centre of Vision and Vascular Science (CVVS), co-ordinated the study, which looked at nutritional supplements for patients with early age-related macular (AMD) degeneration and found they helped sharpen vision.

Details of the findings are being presented in Belfast today (Friday) by Professor Chakravarthy and Dr Stephen Beatty, Head of Vision Research at the Waterford Institute of Technology.

They co-designed the study and the antioxidant supplement was developed with the advice of Professor Ian Young from the School of Medicine, Dentistry and Biomedical Sciences at Queen's and scientists in eyecare companies Dr Mann Pharma and Bausch and Lomb.

AMD is an incurable eye disease which causes blurring of central vision because of its effects on the macula, the central part of the retina.

Over 400 people across Ireland took part in clinical trials investigating whether carotenoids, rich antioxidants which are found in fruit and vegetables, could prevent progression to the more serious late AMD.

When the eye disease progresses to late AMD patients are unable to read, watch television or recognise people's faces as they only have peripheral vision, not central vision.

Professor Chakravarthy, who is also a Consultant Ophthalmic Surgeon at the Royal Hospital in Belfast, said: "Late AMD causes severe sight loss and has a huge economic impact both in terms of the effects of sight loss itself and in terms of the expensive treatments that are needed to deal with the condition.

"Up to 500 people a year in Northern Ireland will lose sight in one or both eyes as a result of late AMD.

"We wanted to carry out the study as prevention of progression to late AMD can result in a reduced financial and societal burden."

As the macula of the eye is very rich in antioxidants the researchers wanted to see if a supplement called CARMA (Caroteneoids and Co-antioxidants in Age-related Maculopathy) containing the carotenoids lutein and zeaxanthin could help slow down AMD.

The supplement also contained vitamins C,E and Zinc, which had been used in a previous study.

The latest study showed that intake of high levels of both carotenoids preserved the macular pigments, slowing down the progression from early AMD to late AMD.

In contrast, the macular pigments of participants in a placebo group declined steadily.

Dr Chakravarthy added: "These findings are important because this is the first randomised controlled clinical trial to document a beneficial effect through improved function and maintained macular pigments.

"Further research is needed to confirm these findings and to identify the numbers needed to treat to prevent 1 case from progressing from early to late AMD."

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The study was funded by Dr Mann Pharma and Bausch and Lomb and sponsored by the Belfast Health and Social Care Trust.

For more information on CVVC go to

<http://www.qub.ac.uk/research-centres/CentreforVisionandVascularScience/>

