



The Foundation attended the *Vision 2014 International Conference on Low Vision* which presented leading research and information on blindness and low vision. Below is a summary of some of the research from the event.

### Bionic eyes

Good progress is being made with electronic retinal implants (“bionic eyes”) and these have already helped some totally blind people to see very basic, fuzzy, black and white images. However, none of these devices can currently provide anywhere near enough resolution to benefit people with macular degeneration. It was suggested that it may take 10 years for sufficient improvements to be made for this to occur.

### Implantable telescope

A new implantable telescope has been trialled in certain people with late stage dry age-related macular degeneration by The University of California, Berkley. The telescope is about the size of a pea and is implanted inside one eye after the removal of the lens. The procedure is similar to cataract surgery except that a telescope is implanted instead of a new artificial lens. It provides either 2 times or 2.7 times magnification and can enable some people to read more easily.

The procedure still has a number of issues. The patient loses all peripheral vision in the implanted eye and has different sized images in each eye. It takes about 12 months of extensive training in the USA to learn how to manage the different image size. The procedure also costs over \$16,000 plus the costs associated with living in the USA for 12 months for training. This lens is not currently available in Australia.

**ACTION:** We are going to have to wait for some time yet for practical outcomes of this research, but knowing research is being conducted all over the world to enhance quality of life for those with vision loss is highly encouraging.

### Coping with age-related macular degeneration

Multiple research projects found there is a significantly increased risk of depression, anxiety and stress in people who have lost vision and those newly diagnosed. The research showed that many people do not seek help, and others do not know where to find help. For many others, long waiting lists for professional help are a great barrier to gaining the support they require.

The Foundation’s recent research into the effect of macular degeneration on those who care for someone with the disease was presented by Dr Bamini Gopinath. It is clear that carers of people with macular degeneration also experience significant challenges with their own health and high rates of depression, however many do not seek any help or support. Several articles about this research have appeared in previous newsletters.

**ACTION:** If you have vision loss and are having difficulty coping, or you are a carer of someone with vision loss and there is concern about coping, anxiety or possible depression, discuss the matter with your GP urgently and seek the help you need.

## Visual acuity and reading speed

Research conducted in the Netherlands has shown that some people can have normal visual acuity (6/6 according to the eye chart test, or 20/20 on the old scale), but have great difficulty with reading speed or accuracy. The eye chart test requires the ability to distinguish one letter at a time which only needs a small part of the macula to be functioning. In contrast, normal reading requires the ability to distinguish at least 8 letters at a time, which needs more of the macula to be functioning.

**ACTION:** If you are told that your eye chart test is normal but you are having difficulty with your reading, it is important that you also have a reading test to determine if you could benefit from additional aids or training.

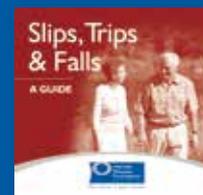
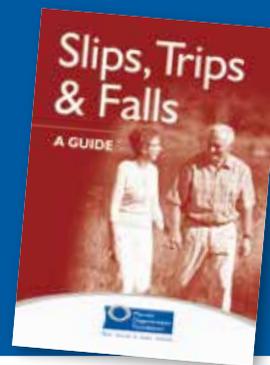
## Falls and low vision

Research again highlighted that people more at risk of having a fall are those with poor balance, decreased mobility, low vision, loss of contrast in vision or after acquiring new glasses.

It was found there was a 50% increase in falls in people who had new prescription glasses. For people who spend a lot of time outdoors, single vision distance glasses were found to be more suitable in preventing a fall than multi or bi-focal glasses as they provided a greater viewing area for walking and better judgement when using steps. The less physical exercise older people do, the more they are at risk of other health conditions such as heart disease, diabetes and osteoporosis.

**ACTION:** Many people who have had a minor fall have an increased fear of another fall. It is important not to let fear of falling restrict activities unnecessarily as this can lead to social isolation, depression and decreased mobility. Make sure you mitigate your risk of a fall and have a plan if you do have a fall at home alone.

The Foundation's *Slips, Trips and Falls - A Guide* is available as an audio CD or publication to help you with this task.



Our focus is your vision

**For further information, guidance and support call Macular Disease Foundation Australia on 1800 111 709**

**Please note:** We have prepared this summary based on the information available to us at the time of publication, and it is not intended to describe all aspects of the relevant research. Circumstances are also likely to change. The Foundation does not accept liability for out of date, misinterpreted or incorrect information.

This summary does not constitute advice and you should discuss treatment options with your doctor. Discussion of a project does not constitute the Foundation's endorsement of that product or treatment, and should not be used for investment or treatment decisions. The Foundation is unable to recommend or facilitate the entry of any clients into a particular clinical trial as all trials have strict inclusion and exclusion criteria.