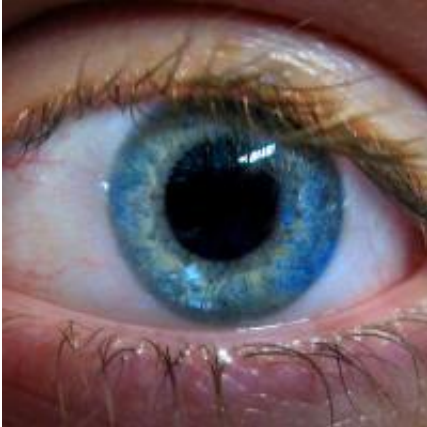


New test for early detection of eye disease

March 17 2016



A new eye chart test for early detection of an age-related eye disease has been developed by researchers in Auckland, Ulster and London.

Age-related macular degeneration (AMD) is an [eye](#) disease that is a leading cause of blindness in the developed world.

Researchers at the School of Optometry and Vision Science at the University of Auckland, the University of Ulster, and Moorfields Eye Hospital in London, have collaborated to develop a new eye chart test designed to be more sensitive to the early signs of AMD.

In a recent paper published in the *British Journal of Ophthalmology*, researchers describe how a chart that uses "vanishing" letters (where

each letter is made up of a black core with a white surround) is more sensitive than a conventional chart at detecting loss of vision in 80 [patients](#) with AMD.

"More new treatments for AMD are becoming available, each capable of slowing the progression of the disease and allowing patients to make the most of the vision they have," says Professor Steven Dakin, the head of the School of Optometry and Vision Science at the University of Auckland. "As such treatments cannot currently restore [vision](#) it is critical that AMD is detected early in order to produce the best outcome for patients."

"The early signs of AMD can be subtle and may not be picked up by a traditional eye test until the condition has got quite bad," he says.

"The design of the new charts is such that letters that are too small to read, appear to vanish," says Professor Dakin. "This means that your score on this chart is limited not just by your ability to read the letters, but by your ability to tell they are even there."

"AMD causes retinal cells to die and this seems to affect patients' ability to read the letters, more than their ability to spot they are there," he says. "These patients perform worse on the new chart even though they might still be able to read conventional eye charts."

Professor Dakin says the new test is simple to administer and uses a task that patients are already comfortable with.

"Given that our aging population is increasingly susceptible to eye diseases like AMD and that treatments need to be administered as early in the disease as possible, tests such as this are likely to become an increasingly important tool for eye healthcare professionals," he says.

More information: Nilpa Shah et al. Visual acuity loss in patients with age-related macular degeneration measured using a novel high-pass letter chart, *British Journal of Ophthalmology* (2016). [DOI: 10.1136/bjophthalmol-2015-307375](https://doi.org/10.1136/bjophthalmol-2015-307375)

Provided by University of Auckland

Citation: New test for early detection of eye disease (2016, March 17) retrieved 25 April 2024 from <https://medicalxpress.com/news/2016-03-early-eye-disease.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.