

# Assessing and monitoring risk for age-related macular degeneration – Sightrisk™

Over the last two decades, researchers have succeeded in identifying risk factors for visually consequential age-related macular degeneration (AMD), a major cause of irreversible vision loss in the western world, particularly in the elderly.

Sightrisk™ ([www.sightrisk.com](http://www.sightrisk.com)) presents an up-to-date report on AMD, and risk factors for developing this condition. Using this information, the eyecare professional can provide his/her patient with informed advice, which will allow him/her to make positive diet and lifestyle modifications in an attempt to protect against AMD, and safeguard vision into later years.

Sightrisk™ also provides the eyecare professional with an option to utilise a specialised web-based software program designed to allow the eyecare professional to quantify, in less than 3 minutes and in the clinic setting, an individual's cumulative risk for developing visually consequential AMD in the future. Such assessment is now being routinely used in health-care practices throughout the world, consistent with the philosophy that prevention is better than cure. In brief, Sightrisk™ is a clinical tool designed to empower the eyecare professional

to calculate a patient's risk for developing AMD, thereby allowing proactive advice and encouragement for patients to make positive and informed changes to their lifestyle in an attempt to maintain vision and ensure a good quality of life in their retirement years.

The Sightrisk™ AMD Calculator was developed following a detailed review of the scientific literature (over 300 published scientific manuscripts). This software was created by specialists across a number of relevant disciplines including: ophthalmology, science, optometry, mathematics, physics and statistics.

This software is capable of processing a patient's ocular and non-ocular details, whereupon it provides an estimate of overall risk of that patient developing visually consequential AMD at a particular age. This is achieved using a mathematical model, which computes a composite % risk, based on the risk factors entered into the web-based electronic form.

This web-based form is particularly user-friendly (with explanatory notes for beginners), and takes less than three minutes to complete and compute. Each risk factor is weighted according to its reported contribution to risk for visually consequential AMD. In this way, the eyecare professional can monitor a patient's risk for AMD in a way that reflects the patient's current risk profile. For example, the eye care professional can display graphically, in a way that is visually accessible to the patient, the reduction in risk for this blinding disease following cessation of smoking and improving one's intake of fresh fruit and vegetables, thus encouraging such positive behaviour using this mechanism of evidence-based feedback.

In addition, this software is capable of incorporating clinical details, where available, into the model. For example, presence of drusen (a clinical feature of early stage disease) or a patient's macular pigment level (antioxidants in the central retina believed to protect against AMD). It is important to note that such clinical factors are not essential for the software to work, but such information will indeed strengthen the model.

In brief, Sightrisk™ offers eyecare professionals, for the first time, the ability to assess and monitor a client's risk for developing AMD in the future. This information can be used to encourage lifestyle changes in a way that can be monitored by the eyecare professional on a serial basis.



Normal vision

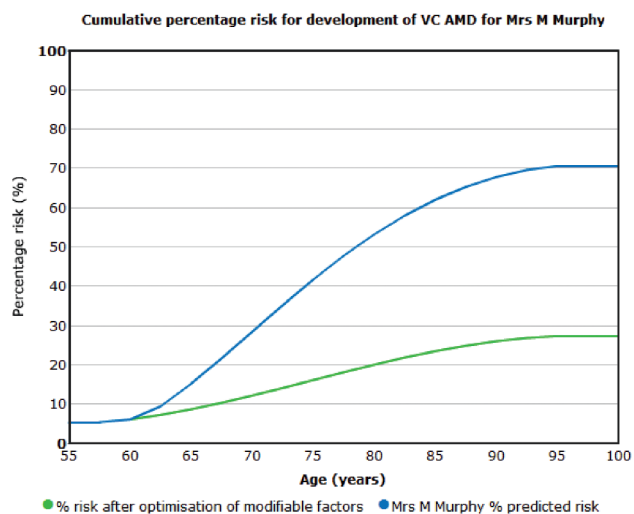


AMD vision

## Cumulative Predictive Risk Factor Index for Visually Consequential (VC) AMD

Results for Mrs M Murphy:

17/09/2008



Mrs M Murphy your modifiable risk factors include:

- Cigarette smoking (cigarette smoking is associated with increased risk of AMD)
- Diet (a diet rich in fruit and vegetables and fish is associated with reduced risk of AMD)
- Consumption of key nutrients (inadequate intake of key nutrients is associated with increased risk of AMD)
- Macular Pigment (low macular pigment levels are associated with increased risk of AMD)

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[www.sightrisk.com](http://www.sightrisk.com)