Keep an eye on your vision: Early diagnosis of eye disease is the key to preserving sight

Most causes of visual impairment and blindness are preventable

All of the structures of the eye are susceptible to age-related changes that can affect quality of vision.1

Although, 80% of visual impairment is avoidable, in that it can be prevented or cured, many people cannot or do not get their eyes checked regularly.2,3

According to the World Health Organisation (WHO): 1,3,4

- It is estimated that there are 285 million people worldwide with visual impairment
- Approximately 90% of them live in low income countries
- In the African region, there are 26 million visually impaired people, 6 million of whom are blind
- Worldwide, the most common causes of visual impairment, accounting for almost 7 out of every 10 cases, are uncorrected refractive errors and cataracts
- Other causes include glaucoma, age related macular degeneration (AMD) and diabetes
- The most common causes of blindness are cataract (51%), glaucoma (8%) and AMD (5%)

Retinal diseases cannot be cured, but they can be treated

Although they are less common than cataracts and refractive errors – which can be cured – eye conditions that affect the retina, such as AMD, glaucoma and diabetic retinopathy, are particularly important, because there are no curative treatments for them.2 Nevertheless, there are treatments that can reduce progression of disease and delay visual impairment and blindness if the diagnosis is made early enough.2

AMD has no symptoms until sight is affected

The retina is located at the back of the eye. It turns light into electrical signals which travel via the optic nerve to the brain where they are translated into the images that we see. The macula is the most sensitive part of the retina and is made up of millions of light-sensing cells that provide sharp, central vision. In AMD the macula is damaged, causing images in the central vision to appear blurry, distorted or dark.1

There are a variety of genetic and non-genetic factors that work together to increase a person’s risk of developing AMD. Multiple genes seem to be involved and risk of AMD is higher in people who have a family history of the disease. Other important factors include age, tobacco smoking, high blood pressure, high cholesterol and obesity. Although anybody may develop AMD, the disease occurs more commonly in Caucasian people than in those with a darker skin.1

There are two main types of AMD

Most people with AMD (80% to 90%) have a ‘dry’ form in which chronic inflammation causes characteristic deposits to accumulate in the macula. Although this initially causes no symptoms, eventually there is dimming or distortion of vision, which is especially noticeable during reading. In more advanced stages, the macula becomes thin or parts of it die and more severe visual loss may occur.1

‘Wet’ AMD is a less common, but more severe form of AMD, in which there is abnormal growth of blood vessels under the retina and in the macula. The cells lining these new blood vessels are dysfunctional, causing leakage of fluid and bleeding. These changes initially cause distortion of vision that makes straight lines look wavy, blind spots and loss of central vision. Ultimately, there is scarring of the retina and complete loss of vision. The wet form affects around 10% of people with AMD, but accounts for approximately 90% of all cases of severe visual loss associated with the disease.1,5

If treatment is started early enough, there is hope for people with wet AMD. A characteristic of the disease is abnormally high levels in the eye of vascular endothelial growth factor (VEGF), a protein that promotes the growth of new abnormal blood vessels. Medicines that target VEGF and stop it from inducing new vessel formation can be injected into the eye monthly or every two months. By blocking the action of VEGF, these treatments can slow the progression of AMD and in some cases even improve vision.1,5

About 1 in every 3 people at risk of sight-threatening eye disease are younger than 50

Because AMD has no symptoms until visual disturbance occurs, it is essential for everybody, and especially those with risk factors, to get their eyes checked regularly. It is not only elderly people that suffer from eye disease! Approximately 35% of people with visual impairment are younger than 50 years, but regular eye examinations become increasingly important after the age of 50.1,3 If it is diagnosed early, although AMD cannot be cured, treatment can keep it from getting worse and delay loss of vision. In addition, avoiding smoking, exercising regularly, eating a healthy diet containing green leafy vegetables and fish, and supplementing with antioxidant vitamins, particularly lutein and zeaxanthin, can help to reduce macular degeneration and preserve healthy eyesight for longer.1

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