

- Vision disorders

Common visual impairments

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THE eyes are a person's window to the world. As they cannot be entirely replaced, it is vital to maintain healthy eyes. With the rise of digital devices and as the years pass, people can oftentimes be affected by visual impairments. Here are several types of common visual impairments.

Cataracts

Cataracts are the most prevalent eye disease in Malaysia. They are often described as hazy films covering the eyes. This is due to the clouding of the eye lens that focuses light entering the eye. Typically, cataracts take years to develop as one ages. However, eye injuries caused by contact sports, harmful UV rays and even diabetes can exacerbate cataracts. This results in tissues breaking down and clumping up, clouding small areas within the lens. As it develops, cataracts prevent clear images from reaching the retina thus causing the blurry vision that patients experience. While cataracts are not reversible, the condition may halt its progression in some cases. In Malaysia, most cataract cases are senile cataracts due to old age.

Diabetic retinopathy

This condition is caused by damage to the retina from diabetes. Having too much sugar in the blood can lead to blockage in the tiny blood vessels that flow to the retina, cutting off its blood supply. The eye subsequently attempts to grow new blood vessels, but these blood vessels tend to bleed easily. In advanced cases, the growth of new, abnormal blood vessels in the retina can leak into the transparent vitreous humour that lets light through, thus affecting the patient's vision. The condition can be detected through a dilated eye exam, with blurry vision and floating spots in one's visual field among its symptoms. It comprises four stages of varying severity:

- Mild non-proliferative diabetic retinopathy (NPDR)
- Moderate NPDR
- Severe NPDR
- PDR

Another related condition is diabetic macular oedema, which is caused by diabetes too. The treatment is to control one's sugar level via proper diet management, along with lifestyle modifications such as increasing the level of physical activity and quitting smoking.

Glaucoma

Glaucoma is a condition that affects the optic nerve by damaging the nerve fibres in it which carry images from the eye to the brain. If left untreated, the disease can lead to blindness. High-risk factors include being over the age of 60 and having a family history of the condition. There are four types of glaucoma to look out for:

- Closed-angle glaucoma
- Open-angle glaucoma

- Angle-closure glaucoma
- Congenital glaucoma

In severe instances, a trabeculectomy or glaucoma filtration surgery may be recommended to lower the eyeball's internal pressure, also known as intraocular pressure. This is aimed at halting and reducing vision loss. However, any vision lost before the surgery will not return.

AMD

AMD is a progressively degenerative disease typified by a slightly blurred central vision. As it progresses, the condition causes vision loss in the centre field of the eye. This is due to the build-up of waste products forming small deposits, called drusen. The drusen have the appearance of small yellowish deposits of fatty proteins under the retina. While a few small drusen scattered is normal as one ages, in AMD, drusen can grow larger, causing bleeding and scarring on the cells in the centre of the retina known as the macula.

The condition mostly affects elderly folk, with the risk increasing in those aged 60 and older. The Ministry of Health Malaysia notes that AMD is the leading vision problem among elderly individuals aged 65 and above.

Risk factors for AMD include smoking, an unhealthy diet and a family history. While there is no treatment for early-stage AMD, supplements can slow its progress. "Dry" macular degeneration is the more common form of the disease – it tends to progress slowly albeit the lack of treatment, meaning that patients get to keep most of their vision. Another rarer form is "wet" AMD, which occurs due to abnormal blood vessel growth in the back of the eye. Photodynamic therapy and injections are treatment options for patients with "wet" or advanced neovascular AMD. For those living with the condition, rehabilitation and low vision devices can help as well.

Refractive errors

Refractive errors are a category of eye problems where the light rays entering the eye fail to focus images sharply on the retina. This results in blurred vision. However, refractive errors can be diagnosed through an eye examination. It is also correctable with eyeglasses, contact lenses or refractive surgery such as laser eye surgery.

Malaysians facing difficulties with their vision should not delay in seeking care. The Association of Malaysian Optometrists advises individuals between the ages of 18 and 60 to undergo eye examinations every one to two years – or as recommended – and for those aged 61 and above to be examined annually.