

Debunking common myths in ophthalmology and vision care

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In the field of eye health, numerous misconceptions persist. Let's examine five prevalent myths and uncover the truth behind them.

Myth 1: Wearing glasses weakens your eyesight

Origin: This myth likely originated from the observation that people often need stronger prescriptions over time, leading to the assumption that glasses were causing the deterioration [1].

Debunked: Wearing glasses does not weaken your eyes. They correct refractive errors and reduce eye strain. The need for stronger prescriptions is usually due to natural ageing processes or progression of underlying conditions [2]. A long-term study by Walline, et al. followed children for three years and found no evidence that wearing glasses accelerates the progression of myopia [3]. Another study by Ong, et al. showed that under correction of myopia did not slow its progression, contradicting the idea that glasses make eyes 'lazy' [4].

Myth 2: Eye exercises can eliminate the need for glasses

Origin: The desire for natural vision improvement has led to claims about eye exercises curing vision problems [5].

Debunked: While eye exercises may help with eye strain and fatigue, they cannot correct refractive errors like myopia, hyperopia, or astigmatism. These conditions are typically caused by the shape of the eye or ageing of the lens [6]. A systematic review by Rawstron, et al. found no scientific evidence that eye exercises can improve refractive errors [7]. The American Academy of Ophthalmology states that eye exercises do not improve vision or reduce the need for glasses [8].

Myth 3: All blind people see complete darkness

Origin: This misconception likely stems from the assumption that blindness means a complete absence of visual perception [9].

Debunked: The experience of blindness varies greatly among individuals. While

some blind people may see complete darkness, many others have some degree of light perception or even limited vision [10]. According to the World Health Organization, blindness is defined as visual acuity of less than 3/60 or a corresponding visual field loss to less than 10 degrees in the better eye with the best possible correction [11]. This definition allows for a range of visual experiences. A study by Merabet, et al. found that even in cases of complete blindness, the visual cortex can remain active and responsive to non-visual stimuli, suggesting a complex relationship between blindness and visual processing [12].

Myth 4: Contact lenses can get lost behind your eyes

Origin: This myth likely arose from the uncomfortable sensation of a contact lens moving out of place, leading to fears of it becoming irretrievably lost in the eye [13].

Debunked: It is physically impossible for contact lenses to get lost behind your eyes.



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The conjunctiva, a thin membrane that covers the white of your eye and connects to the inside of your eyelids, creates a barrier that prevents anything from moving behind the eye [14]. While a lens might temporarily slide under the eyelid, it cannot go further back. Blinking or gently massaging the eyelid can help dislodge a lens that has moved out of place [15].

Myth 5: Colour-blind people only see in black and white

Origin: The term 'colour-blind' may lead to the assumption that affected individuals see no colour at all [16].

Debunked: Most colour-blind individuals can see colours, but they have difficulty distinguishing between certain colours, typically reds and greens. Complete colour blindness (achromatopsia) where a person sees only in shades of grey is extremely rare [17]. A study by Neitz and Neitz explains that colour blindness is usually caused by the absence or malfunction of certain cone cells in the retina, not a complete lack of colour perception [18]. Most colour-blind individuals have trichromatic vision, meaning they can still perceive a wide range of colours, just with some limitations [19]. Understanding these facts helps in making informed decisions about eye health. Regular eye exams and following professional advice remain crucial for maintaining good vision and eye health throughout life [20].

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