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Keratoconus

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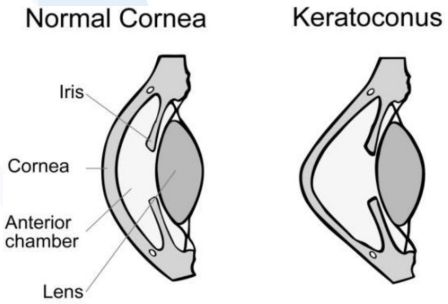
What is Keratoconus?

The cornea is the clear window at the front of the eye and is usually a round, even shape. Keratoconus (pronounced keh-rah- toe-cone-us) is when the cornea becomes thinner and bulges outwards in a cone shape. Keratoconus can be a progressive condition and can get worse gradually over time. It often affects one eye first but both eyes are usually involved eventually.



How does Keratoconus affect vision?

People with keratoconus usually experience blurred vision in one or both eyes. This is because the front of the eye is not completely smooth and round. This affects the focus of the eye so the light that passes through forms an unclear image at the back of the eye. In advanced stages of keratoconus, some patients may develop scarring in the cornea, which can make their sight blurred by reducing the amount of light which can enter the eye. A small number of patients may experience a sudden, painful loss of vision if fluid from the eye enters a very thin cornea. This is called hydrops and will settle with time.

What causes keratoconus?

We do not know exactly what causes keratoconus. It may be partly genetic (passed on in a family through the genes) and it happens more in people who have allergies like asthma or eczema. There may also be a link between keratoconus and people who rub their eyes frequently.

Who can get keratoconus?

Keratoconus is usually diagnosed in young people at puberty, late teens or early twenties. It affects up to 1 in 450 people.

How can the Ophthalmologist tell if I have keratoconus?

The eye doctor (ophthalmologist) or optometrist (ophthalmic optician) will examine your eyes with a microscope called a slit lamp. You might also have a corneal topography scan. This is a quick, painless photo which checks the shape and thickness of your cornea in detail.

What treatment is available for keratoconus?

In the early stages, some patients will simply need glasses to see well, but many patients eventually require contact lenses for better vision. The contact lenses are fitted by the hospital optometrists and are usually small hard lenses (rigid gas permeable lenses) but some people may wear soft lenses and some need more specialist designs. Contact lenses do not make keratoconus worse or better, they just improve vision while being worn.

Some patients with progressive keratoconus may be suitable for Corneal collagen cross-linking (CXL). This treatment can stop keratoconus getting worse. It uses ultraviolet light and vitamin B2 (riboflavin) drops to stiffen (and strengthen) the cornea. It is effective in over 90% of patients with a single 30 minute outpatient procedure. Patients who were previously wearing contact lenses will normally resume wearing them afterwards.

In very advanced cases, where vision can no longer be sufficiently improved with contact lenses, a corneal transplant (‘graft’) may be needed. Most patients with keratoconus will not need a corneal transplant