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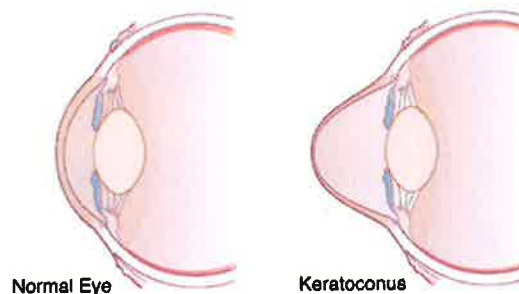
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Corneal Collagen Cross-linking for Keratoconus



Patient information:

Keratoconus:

Keratoconus is a genetic disease that progresses in the first 3 or 4 decades of life. It distorts and stretches the cornea, causing increasing short-sightedness and severe astigmatism. Eventually it may distort the cornea to such a degree that it reduces vision to a point where glasses and contact lenses are no longer useful. Though in most people it continues throughout life, it sometimes slows or even stops with age.

Corneal collagen cross-linking:

Background:

If the cornea is soaked in riboflavin (vitamin B2) using drops and exposed to ultraviolet light for half an hour, the corneal tissue becomes more rigid and progression of the disease is stopped.

This is a treatment developed since approximately 2007 and has shown significantly better outcome than previously possible for eyes with disease that continues to progress. It is likely to prevent the long-term need for routine corneal transplant in affected patients. This was a common requirement in more extreme cases in the past.

Operation:

The eye is anaesthetised with drops and the surface layer of cells on the cornea (its "skin") is removed to allow the riboflavin drops enter the cornea. Drops are applied for half an hour and the cornea is then exposed to the ultraviolet light for another half an hour. The eye is kept numb and held open for this time. A bandage contact lens is then placed on the eye and the patient can leave for home. Tablets to assist in sleeping and help with any pain are provided along with drops to be used for the first weeks.

Follow up visits:

3 to 4 days; the bandage contact lens is removed and the eye examined. Usually the vision is a little worse than before surgery at this time, recovering over a month, approximately. Further visits are usually at 1 month, 6 month, 1 and 2 years. Vision recovers over the first few months but is usually enough for return to normal activities after about a week to 10 days.

Time off work:

Most people return to work at about 7 to 10 days following the procedure.

Risks:

Infection. A common surgical risk. Antibiotics are used to minimise this risk during the first few days after surgery

Slow healing of the surface layer of cells. This may rarely delay visual recovery and cause discomfort or pain in the morning. It usually recovers over a number of days or weeks and the symptoms are helped in the meantime by night-time ointment.

Scarring. A rare complication that may limit vision in the long-term and require further surgery including laser correction or even transplant. It is more common in eyes treated late in their disease.

This is not a comprehensive list of the risks but covers the more common and more threatening possibilities.