



## INFORMATION ABOUT KERATOCONUS

Keratoconus is a progressive corneal disease. The onset is usually late teens or early 20's but can occur later in life in some individuals. If left untreated keratoconus can lead to progressive vision loss, inability to wear glasses or contact lenses, and possibly corneal transplant surgery. The earlier keratoconus is diagnosed and treated the better the long term visual outcome.

Often keratoconus patients are informed that wearing contact lenses will stop the disease from progressing. Contact lenses DO NOT hold back the keratoconus from progressing. Waiting to treat the keratoconus may actually require more invasive treatments to correct the vision loss. Keratoconus is progressive and will worsen in most young patients without treatment.

**Therefore, do not wait to seek treatment!** Early treatment will preserve your vision and lower the likelihood of needing a corneal transplant in the future.

**Cornea Cross-Linking, an FDA approved treatment, is available to help prevent this condition from worsening. Cornea Cross-Linking is a simple, non-invasive treatment for keratoconus that can stabilize your cornea and halt the disease progression. Cornea Cross-Linking has had a very high success rate (99.3%) in preventing the need for corneal transplants and has been effective for thousands of patients around the globe. Dr. Price, Dr. Feng, and the doctors at Price Vision Group participated for seven years in the FDA studies for Cornea Cross-linking.**

### Keratoconus Surgical Treatment Options

- **Cornea Cross-linking (CXL)** - A minimally invasive outpatient procedure that strengthens the cornea that has been weakened by keratoconus. Treatment involves removing the outer skin covering of the cornea and applying riboflavin (Vitamin B) to the surface of the eye, followed by treatment with an ultraviolet light. A bandage soft contact lens is placed after treatment to protect the eye until the surface heals. In 3-5 days the contact lens can be removed.
- **INTACS Intrastomal Rings** - INTACS are small ophthalmic plastic rings which are inserted in the outer part of the cornea for the reduction of astigmatism or near-sightedness in keratoconus. The INTACS flatten the steepened cornea to delay or prevent the need for corneal transplant. INTACS can allow for better centering and

fit of contact lenses in keratoconus patients. INTACS can be combined with **CXL** treatment to ensure that the cornea thinning does not progress.

- **Deep Anterior Lamellar Keratoplasty (DALK)** - DALK is a corneal transplant technique replacing the anterior 80% to 90% of the cornea depth with a graft and leaving a very thin posterior membrane of the patients cornea. A **DALK** graft lowers the likelihood of graft rejection. The cornea heals more strongly and quickly because the anti-rejection medications can be tapered more rapidly, allowing for suture removal earlier and more rapid visual recovery. Laser cutting of the donor graft tissue and the cornea of the recipient is always recommended to greatly increase wound strength in these patients. The laser cut allows the wound to fit together like a lock and key, ensuring a much stronger wound.
- **Penetrating Keratoplasty (PKP)** - PKP is a full-thickness corneal transplant. A laser cut is always recommended for a full-thickness graft as well to increase wound strength. There is a higher likelihood of graft rejection for PKP grafts so these patients need to be on anti-rejection medications longer. These medications slow the healing. A PKP graft has sutures in place for approximately 12 months. Corneal astigmatism and large amounts of refractive error may occur after suture removal. Additional surgery may be required to correct this.