

Aaleya Koreishi, M.D.

Patricia Ple-plakon, M.D. Joanne Francis, M.D.

CORNEAL CROSSLINKING (CXL)

In keratoconus, or other forms of corneal ectasia, the corneal shape becomes thin and steep over time, like a cone-shape bulge. The corneal collagen fibers are weak, providing insufficient structural support. This weakness leads to the irregular shape, which can then cause poor vision and glare. The crosslinking procedure adds strength to the cornea, making it more stable so it can hold its shape and focusing power. These "links" help strengthen the cornea, which stops the thinning, bulging and further loss of vision.



CXL is NOT a treatment that markedly improves vision like LASIK. The purpose of CXL is to **prevent further deterioration** of the cornea and halt the keratoconus or ectasia. Patients will typically still have to wear corrective glasses or hard contact lenses after the procedure for best-corrected vision.

The CXL treatment is an outpatient procedure performed in the office. The surface of the eye is numbed with eye drops. The epithelium, a thin layer of clear, protective cells (like skin) that covers the cornea is prepared for the CXL procedure. Next, riboflavin eye drops (vitamin B2) are placed on the eye according to the CXL protocol. Finally, the patient is asked to look straight ahead at an ultraviolet (UV) light while lying comfortably on a reclining chair. The UV light facilitates crosslinking of the riboflavin-soaked corneal collagen fibers. The procedure takes approximately 60-90 minutes.

Many research studies have shown that CXL may prevent further vision loss in over 98% of patients, and CXL can be repeated if the first treatment is not effective. Based on CXL study results over more than a decade, the beneficial effects of CXL appear to last for many years and there is some evidence that the strengthening effect may be permanent. The ultimate goal of CXL is to stabilize the cornea and prevent the need for a corneal transplant, allowing patients to wear contact lenses or glasses more comfortably and safely.

Corneal crosslinking is now approved by the FDA. Cornea Consultants of Texas is proud to offer the first and only FDA-approved cross-linking treatment: the Avedro KXL System.

Detailed risks, benefits and alternatives will be discussed thoroughly with each patient at the time of consultation.

More information is available at www.avedro.com