

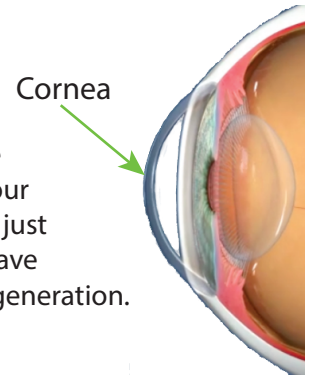


CORNEAL CROSS-LINKING

Patient's Guide

WHAT IS CORNEAL CROSS-LINKING?

- Corneal Cross Linking (CXL) is a treatment that uses UV light and a photosensitive solution to strengthen and stabilize the corneal collagen. The cornea is the clear “wind shield” of the eye that we look through and is made up of primarily collagen. Our bodies naturally “cross link” our collagen as part of the normal aging process over several years of our life. The CXL treatment just accelerates that normal again change to help stabilize the corneal collagen in patients who have degenerative cornea diseases such as keratoconus, corneal ectasia and pellucid marginal degeneration.



WHAT IS THE GOAL OF CXL TREATMENT?

- The goal of CXL is to halt the progressive and irregular changes in the corneal shape known as ectasia. Left untreated, these degenerative changes will progress leading to decreased vision and the potential need for corneal transplantation. With CXL the treatment success is 90% and most patients are able to continue the use of their contacts or glasses without the need for further more serious corneal transplantation surgery.

WHO IS A CANDIDATE FOR CXL?

- FDA approved for ages 14 to 65
- Progressive corneal weakening
- Corneal thickness greater than 400 microns
- No corneal scarring
- No history of herpes virus infection
- No autoimmune conditions
- Not pregnant or nursing

GOALS OF TREATMENT?

- Stabilize the corneal collagen
- Halt disease progression
- Delay or prevent need for corneal transplant
- May reduce nearsightedness and astigmatism
- Allows vision to be corrected with current modality

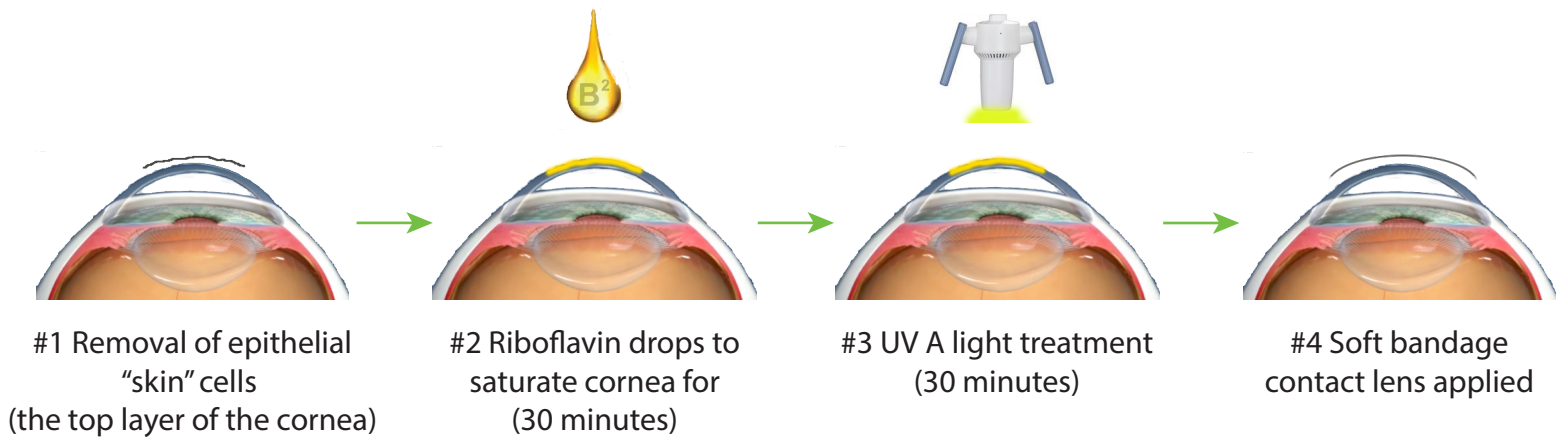
HOW WAS CORNEAL CROSS-LINKING DEVELOPED?

- Human studies of CXL began in Germany in 2003, and since has been widely used in Canada, Europe and Asia. The procedure utilizes riboflavin (Vitamin B-2) drops and low dose ultraviolet A light to create chemical bonds (cross links) within the collagen fibrils of the cornea. These cross links strengthen and stabilize the cornea from further deterioration in patients who have these corneal weakening degenerations. In 2011, orphan drug status was awarded by the FDA to Avedro for its corneal cross-linking riboflavin solution and gained full FDA approval in 2016 with the Avedro KXL treatment, the only FDA approved version in the United States.



HOW IS THE TREATMENT PERFORMED?

- CXL is an outpatient procedure performed in a special minor surgical room within our practice. Only numbing medication and a mild sedative is needed to perform the procedure. There are a few steps to the procedure:



- Immediately after the procedure you will begin using your topical medications. The initial recovery can be painful with eye discomfort and blurred vision for the first 3-4 days. Your doctor will work with you to help control your pain but it is best to plan for several days of rest following the procedure. You will have a series of postoperative visits in the first week to monitor your recovery. Most patients will need to take the first week off from work.

EARLY POST-OP EFFECTS (day 1-7)

- Blurred vision
- Pain and discomfort
- Light sensitivity
- Watery eyes
- Halos around lights

LATE POST-OP EFFECTS (week 2-6)

- Fluctuating vision
- Light sensitivity
- Temporary vision correction

POTENTIAL COMPLICATIONS

- Delayed healing
- Corneal haze
- Infection
- Corneal swelling
- Increased eye pressure
- Treatment failure

AFTER TREATMENT CARE AND HEALING

- After treatment you will be instructed to avoid unprotected exposure to sunlight. Your normal corrective contact lenses will need to be left out for 4-8 weeks until your vision begins to stabilize. You will be given instructions on how to use your medicated eye drops. Vision is usually blurrier for about 2-3 months as the eye heals and then will begin to stabilize over the 6-12 month period. We will work with your normal eye doctor to update your contacts or glasses 1-3 months after treatment.

QUESTIONS

- If you have questions about this procedure, or would like to proceed with treatment please call our corneal cross-linking counselor 816.746.9800. To learn more about corneal cross-linking and the Avedro treatment visit these websites:

1. <https://www.moyeseye.com/corneal-cross-linking-1>

2. <https://avedro.com/patients/>