

Corneal Cross-linking (CXL) Consent Form

The cornea is the clear, outer layer of your eye. It is often compared to the clear crystal of a wrist watch. It has 3 principal layers. The middle or stromal layer is the thickest of these layers (making up over 90% of the cornea's thickness) and is made up of mostly water and a structural protein called collagen. Collagen makes the cornea strong and flexible. It also helps the cornea keep its round, regular shape. The healthy cornea focuses light so you can see clearly.

Some diseases change the thickness of the middle layer of the cornea. The cornea gets thinner, structurally weaker and may begin to bulge forward resulting in an irregular, cone shape. As the cornea changes shape vision may become blurry, and one may experience greater sensitivity to bright lights. The cornea disease may get worse over time. The medical name for this problem is corneal ectasia. One common type is keratoconus. Older children, teenagers, and young adults may develop this. A second type presents months or years after refractive eye surgery such as LASIK and is called post-refractive ectasia

Corneal cross-linking (CXL) can help make the middle layer stronger. CXL is an eye treatment that may be done in your ophthalmologist's (eye surgeon's) office.

There are 3 steps. 1) Your ophthalmologist will numb your eye with drops and then gently remove part of the outer layer of your cornea. 2) The ophthalmologist will put special vitamin eye drops (riboflavin) in your eye many times over 30 minutes or more. 3) The ophthalmologist will shine a special ultra-violet (UV) light on your eye for another 30 minutes and keep adding drops. The vitamin eye drops and UV light work together to make the collagen stronger. The cornea becomes stiffer and usually stops bulging out.

The goal of CXL is to stop the cornea from getting thinner, weaker, and more irregular in shape. CXL cannot make your cornea normal again. CXL may keep your vision from getting worse. Sometimes, your vision may even improve. You will still need to wear glasses or contact lenses for near or far vision. It is possible that, despite CXL treatment, your cornea may not respond or may begin to thin and steepen again at some time in the future. If it does, you may need another CXL treatment or another type of cornea surgery.

There are other ways to improve your vision (separate from strengthening the weakened cornea). Your ophthalmologist will talk to you about which treatment approach might work best for you. 1) Many patients are able to wear glasses and/or special contact lenses to see well. Progressive thinning or weakening of the cornea, however, may make it more difficult to find glasses or contacts that improve your vision as much as you need. 2) Your ophthalmologist may suggest putting a small, clear plastic insert inside your cornea (corneal ring segments). 3) Some people may need corneal transplant surgery if good stable vision cannot be achieved.

There are risks (problems) that can happen with CXL. Here are some of the most common or serious problems:

- Pain. You will probably have pain and be sensitive to light for a few days. You will get a prescription for medication to help with the pain.
- Infection. You could get an eye infection from the surgery. The infection might cause your cornea to scar and make your vision worse. You will get a prescription for eye drops to help prevent an infection. If you had an eye infection called HSV (herpes simplex virus) in the past, it could come back.
- Vision problems. Your vision will be poor for a few weeks. This poor vision may last longer if you have an infection or your eye does not heal well. Your vision may stay this way.
- Changes to your cornea. Your cornea might not heal well, or it might take a long time to heal. It could become cloudy instead of clear (corneal swelling/edema or scarring).
- Your cornea may keep changing shape for many months. You may need to get new glasses or contact lenses while the shape is changing, and again after the shape stops changing.
- CXL may not help. You may need more than one CXL treatment. Your cornea could get weak and thin again, or more irregular. If it does, you may need another CXL treatment or another type of cornea surgery.

Consent. By signing below, you consent (agree) that:

- You read this consent form, or someone read it to you.
- You understand the information in this consent form.
- The ophthalmologist or staff offered you a copy of this consent form.
- The ophthalmologist or staff answered your questions about CXL.
- You agree to have CXL on _____ (choose one: the right eye, the left eye)

Patient's Name: _____

Patient's signature: (or person authorized to sign for patient)

Date