Keratoconus is a disease characterized by thinning and protrusion of the cornea, resulting in an irregular, conical shape. Astigmatism occurs as the keratoconus progresses, resulting in blurred vision, which can be impossible to correct with glasses.

Affecting 0.05% of the population, it occurs in all races and affects both eyes. It often starts in puberty and slowly progresses over decades. In progressive cases, severe astigmatism may require a corneal transplant to restore useful vision.

Conditions associated with keratoconus include allergic hypersensitivity, Down’s syndrome and connective tissue disorders. Chronic eye rubbing may accelerate progression. In rare cases, people may experience a similar bulging of the cornea after refractive surgery, this is known as ectasia. The Foundation is conducting studies of corneal collagen cross-linking to halt or slow the progression of this condition.

Chronic eye rubbing may accelerate progression.

From a Patient’s Perspective

Sam Rocke, a 25 year old Fort Wayne, Indiana resident, graduate of Samford University and cross-linking patient, graciously agreed to an interview on his experience with the procedure.

Sam, thank you for sharing your story.
Tell us about yourself.
I was diagnosed with keratoconus in 2006. In 2008 I graduated from college, went into financial planning and married my wife, Abbey. I grew up playing tennis and baseball but now love to play golf and run. In January of this year I ran my first full marathon!

How did you first hear about cross-linking?
My optometrist in Fort Wayne mentioned that Dr. Price was doing studies and that the treatment could prove beneficial for stopping progression of keratoconus.

How did the treatment compare to your preconceived notions? Would you recommend it to others?
The treatment was very well articulated to me. I was surprised by very little because the staff did such a fantastic job preparing me. While uncomfortable, it was very easy. Yes, I would absolutely recommend it to others.

What impact did cross-linking have for you?
In addition to the peace of mind I have in knowing I’ve done all I can to stop the progression of my keratoconus, my vision improved as an added bonus. My optometrist in Fort Wayne is thrilled that my comeas are stronger and smoother than before the treatment.

Pictured: Sam with his wife, Abbey
Happenings

June 21, 2012
Cornea Classic Golf Outing is just around the corner! If you would like to sponsor or play let us know by calling our office today!

Individual players are just $175, Foursomes are $700. Corporate Sponsorships start at $250.

Join us for a great day of golf and a wonderful silent auction — all to benefit Cornea research!

September 28, 2012
Mark your calendar for the next Women’s Luncheon! Reserve your seat early — single tickets are $35, table sponsorships are $250.

November 17, 2012
The Focus on Education seminar will be held at the Ritz Charles in Carmel, Indiana. Offering 7 hours of CE to attending optometrists while hearing from contemporary experts on today’s topics.

Our Mission: To Give People Back the Use of Their Eyes

We Strive to Educate

One strategic area of our mission is to provide education. Not only do we strive to educate patients on their visual conditions but we also want to share our research findings and other cutting edge developments with eye care professionals around the globe. Toward that end, we host an annual meeting for optometrists in Carmel, IN called Focus on Education. In 2011, the seminar drew in nearly 200 optometrists from around Indiana and outlying states.

Eye surgeons from around the globe travel to Indianapolis to learn cutting edge cornea transplant techniques from Dr. Price, in what are known as Cornea Courses. To date, Dr. Price has taught more than 600 doctors how to perform new surgical treatment options, including the DMEK and DSEK techniques for cornea transplants.

As many patients can attest, new developments in treatments, medications and procedures are dramatically improving the way in which we treat visual conditions.

Dr. Price Honored with Barraquer Award

We would like to congratulate our founder and president, Francis W. Price Jr., MD, who was presented with the 2011 Barraquer Award at the International Society of Refractive Surgery annual meeting this past October.

The Barraquer Award is presented to a physician who has made outstanding contributions in the field of refractive surgery and exemplifies the character and scientific dedication of José I. Barraquer, MD, one of the founding fathers of refractive surgery. The award is currently on display in the clinic at Price Vision Group.

“This was a special honor for me because Dr. Barraquer was a pioneer in many areas of corneal surgery. He was really the first to develop techniques to reshape the cornea to correct visual problems. His cryolathing surgery was the precursor to today’s LASIK surgery. I was fortunate to have been one of only a handful of surgeons in the U.S. who did cryolathing surgery. The complexity of cryolathing surgery prepared me to be undaunted by new complex surgeries which offer improvements for visual problems—like DMEK,” said Dr. Price.

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Keratoconus strikes young people in their prime learning and working years. We don't know yet what causes it, but we do know that keratoconus causes the cornea to weaken. We are conducting an investigational study to evaluate a treatment known as collagen cross-linking. This is the first treatment specifically designed to treat the underlying weakness in keratoconus eyes.

The cross-linking treatment consists of applying eye drops that contain vitamin B₂ (riboflavin) and then shining a specific wavelength of ultraviolet light on the cornea for 30 minutes to trigger a chemical reaction. Laboratory studies have shown this treatment can triple the strength of the cornea. The treatment appears to halt keratoconus progression in about 9 out of 10 patients.

We have treated over 140 patients with cross-linking and we have partnered with other sites in a multi-center study to gather data to support the approval of cross-linking in the United States.

The goal of the cross-linking treatment is to prevent keratoconus from worsening, so it is helpful to catch it early, before the cornea becomes extremely distorted. In early stages, vision can be corrected with glasses or soft contact lenses. As the condition progresses, hard contact lenses are needed to obtain good vision, but it can be difficult to get a good fit and some patients cannot tolerate hard contacts. Small plastic rings can be inserted into the cornea to restore a more normal shape, but the results are somewhat unpredictable with the rings currently approved for use in the United States, and they are not effective in about 1 in 3 patients.

We are now establishing clinical studies to evaluate new ways to restore a more normal corneal shape for keratoconus patients. These include a ring design that may be more effective, and contouring the surface of the cornea with a laser.

We have been pioneering new partial thickness corneal transplants when nothing else but surgery will work for advanced stages of the disease. We are training surgeons from both within and outside the U.S. in these techniques as well as evaluating the use of special laser directed incisions rather than metal blades for these transplants.

We sincerely appreciate the support of our donors who make these kinds of advances possible.

Meet Dr. Schroeder

Anne Schroeder, MD is a graduate of The University of Chicago and The Chicago Medical School, with honors. She completed her ophthalmology training at the Havener Eye Institute at Ohio State University, where she was an active member of the Resident Advisory Council and performed research in the areas of glaucoma and retina.

Following graduation, Dr. Schroeder joined a Mt. Sinai affiliated practice in New York where she combined academics and community practice in a caring and compassionate manner.

Joining Price Vision Group in Spring 2011, Dr. Schroeder comprehensively evaluates and treats corneal and cataract patients. When asked what she enjoys about being a part of the practice Dr. Schroeder said, “I believe that educating patients is truly a great privilege. At Price Vision Group, I have the opportunity to do just that—all while providing thorough care and being part of a dynamic team committed to improving the vision of our patients.”

Visit www.youtube.com/user/cornearesearch to view a cross-linking procedure and more!

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Ask Your Doctor
By Dr. Francis Price, Jr.

Q: I have been thinking of having the corneal cross-linking procedure, but I am concerned. I have always been told to wear sunglasses with good UV protection. Isn’t it dangerous to keep your eyes open in direct contact with UV light? What are the risks?

A: The UV light used in the cross-linking treatment is a single wavelength, just a narrow sliver of the UV spectrum. Before shining the light on your eye, we instill eye drops containing riboflavin (vitamin B2), which absorbs 95% of the UV light. The small amount of light that gets past the riboflavin is well below recommended exposure limits. Don’t forget, you can view a cross-linking procedure and many other procedures on our brand new Youtube non-profit channel at:

www.youtube.com/user/cornearesearch!

The cross linking treatment has a 12-year track record and it’s been performed on thousands of patients without any reported damage to the lens or retina. On the other hand, sunlight can definitely damage your lens and retina, so you are smart to wear sunglasses when you are outdoors!

Thank you for your continued interest and support!