



Keratoconus: How PROSE Treatment Can Help

Keratoconus and Ectasia in Perspective

Corneal ectasia is an umbrella term for a group of conditions that cause a progressive thinning and distortion of the corneal shape. According to the National Eye Institute, approximately one out of every 2,000 people in the United States develops keratoconus, the most common corneal ectasia, in which the cornea bulges outward, forming a cone shape.





This abnormal curvature changes the cornea's refractive power, producing moderate to severe distortion (astigmatism) and blurriness (nearsightedness) of vision. Corneal ectasia may also cause swelling, sight-impairing scarring of the tissue, light sensitivity and pain.

For some people with this condition, glasses or contact lenses will adequately and comfortably correct vision. Others struggle for years searching for contact lenses that fit well as their eyes continue to change. And, for 10-20%, the disease progresses to the point that surgery, including cornea transplants or Intacs, is considered.

Currently, there is no cure for keratoconus — **but there is a better treatment option.**

HELP FOR CORNEAL ECTASIA

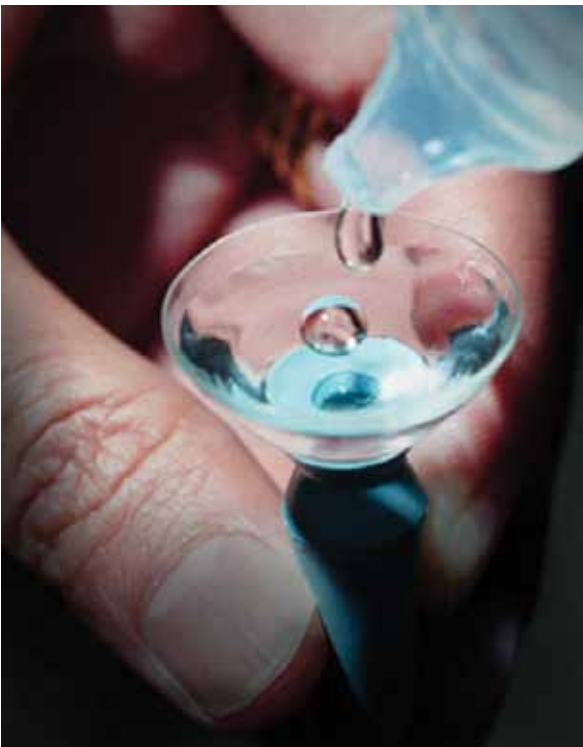
“Thanks to PROSE, I was able to put off corneal transplant surgery, which at age 41... was a true blessing from God.”

— **Keratoconus patient**

Hundreds of patients with keratoconus and corneal ectasia - just like you - have had their vision restored and quality of life transformed with our innovative treatment: prosthetic replacement of the ocular surface ecosystem (PROSE). Pioneered by Boston Foundation for Sight and also available at sixteen top-ranked medical centers across the globe, PROSE uses FDA-approved custom made prosthetic devices to replace or support impaired ocular surface system functions that protect and enable vision.

PROSE treatment can improve vision and alleviate symptoms in patients with corneal ectasia caused by a number of conditions, including:

- Keratoconus
- Keratoglobus
- Pellucid marginal degeneration
- Terrien's marginal degeneration
- Post-LASIK, post-RK, post-PRK
- Post-cornea transplant

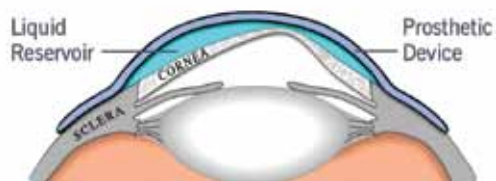




PROSE TREATMENT

The prosthetic devices created during PROSE are transparent domes, about the size of a nickel, made of gas-permeable plastic that allows oxygen to reach the ocular surface.

Devices fit under the eyelids and rest on the sclera (the relatively insensitive white tissue of the eye), vaulting the damaged cornea and creating a new smooth optical surface that protects the eye from the environment and blink trauma. The devices are filled with saline at the time of insertion, creating a reservoir of fluid that continuously bathes the eye in oxygenated artificial tears while being worn during waking hours.



BENEFITS OF PROSE

- Reestablishes a healthy and stable ocular surface environment that supports healing and reduces symptoms
- Improves blurry vision by masking surface corneal irregularities and transmitting a sharp image to the back of the eye
- Prevents further damage by protecting and shielding the cornea against the environment and eyelids

PROSE treatment “yielded significant increase in visual function...with high tolerance (wearing failure 8%) at 6 months. 93.1% of eyes achieved visual acuity of 20/40 or better.”

— Poster Presentation, World Cornea Congress VI, April 2010

KERATOCONUS SYMPTOMS

In 2010, Boston Foundation for Sight (BFS) conducted an online survey of more than 1,000 people with corneal disease. For the 201 survey respondents diagnosed with keratoconus, keratoglobus or pellucid marginal degeneration, including 121 PROSE patients:

- 78% had moderate or severe difficulty driving at night
- 77% had difficulty reading regular print newspapers, magazines or websites
- 73% had difficulty with work or hobbies that require seeing up close
- 69% had light sensitivity
- 59% had eye pain or discomfort

TREATMENT SUCCESS

BFS also asked respondents about their success with a variety of treatments. Here is what they had to say about the five most common:

- 1% had significant success with soft contact lenses
- 7% with hybrid contact lenses
- 22% with rigid gas-permeable contact lenses
- 45% with scleral lenses

86% had significant success with PROSE





About PROSE Providers

As of March 2012, there are seventeen top-ranked specialty eye care institutes located in academic medical centers and clinics in the U.S. and abroad that offer PROSE.

During their treatment, each patient is partnered with cornea specialists and an optometrist who has completed an intensive nine-week PROSE Clinical Fellowship at Boston Foundation for Sight.



PROSE treatment teams will work with you and your support network to understand your specific needs, and to create devices that successfully replace ocular surface system functions, improve vision and restore your quality of life.

PROSE providers are independently owned and operated, managing scheduling and insurance and providing ongoing care.

Please contact a PROSE provider today to make an appointment or visit www.bostonsight.org to learn more about how PROSE can help you!

PROSE Providers

ALKEK EYE CENTER, HOUSTON, TX
Baylor College of Medicine
(713) 798-6109 www.bcm.edu/eye

BASCOM PALMER EYE INSTITUTE, MIAMI, FL
University of Miami
Opening Spring 2012

BOSTON FOUNDATION FOR SIGHT, NEEDHAM, MA
(781) 726-7337 www.bostonsight.org

BROOKE ARMY MEDICAL CENTER, SAN ANTONIO, TX
(210) 916-9900

DOHENY EYE INSTITUTE, LOS ANGELES, CA
University of Southern California
(323) 442-6337 www.doheny.org

ILLINOIS EYE AND EAR INFIRMARY, CHICAGO, IL
University of Illinois College of Medicine
(312) 996-5410 www.uic.edu/com/eye

KELLOGG EYE CENTER, ANN ARBOR, MI
University of Michigan
(734) 232-8400 www.kellogg.umich.edu

MASSACHUSETTS EYE AND EAR
Boston, MA

NORTH SHORE — LIJ HEALTH SYSTEM, GREAT NECK, NY
Great Neck, NY www.northshorelij.com

PROCTOR FOUNDATION, SAN FRANCISCO, CA
University of California, San Francisco
Opening Spring 2012

WEILL CORNELL EYE ASSOCIATES, NEW YORK, NY
Weill Cornell Medical College
(646) 962-2020 www.weillcornelleye.org

WILMER EYE INSTITUTE, BALTIMORE, MD
Johns Hopkins
(410) 955-5257 www.hopkinsmedicine.org/wilmer

Please visit www.bostonsight.org/providers for the most current list, including providers in India, Iran and Japan.