Keratoconus and Corneal Ectasia: BostonSight® PROSE Treatment Can Help

"THANKS TO PROSE I was able to put off corneal transplant surgery, which at age 41...was a true blessing from God."

— Keratoconus patient
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. These include keratoconus, keratoglobus, pellucid marginal degeneration, Terrien’s marginal degeneration and post-operative astigmatism related to LASIK, RK, PRK, PTK or cornea transplant. 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 thins and bulges outward, forming a cone shape. This change in shape produces blur and distortion of vision. Corneal ectasia may also result in scarring, light sensitivity and pain.

For some people with this condition, glasses or contact lenses will adequately and comfortably correct vision. For others, glasses do not work, and it is a struggle to find a good contact lens option as their eyes continue to change. And, for 10 - 20%, the problem 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.

BOSTONSGHT PROSE TREATMENT

Thousands of patients with ectasia have had their vision restored and quality of life transformed with PROSE (prosthetic replacement of the ocular surface ecosystem) treatment. During BostonSight PROSE treatment, doctors custom design FDA approved prosthetic devices to replace or support damaged ocular functions; improving vision and reducing pain and light sensitivity. BostonSight PROSE treatment is available at a growing number of top-ranked academic medical centers and clinics across the United States.

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

PROSE 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 removable prosthetic devices are filled with saline at the time of application, creating a reservoir of fluid that continuously bathes the eye in oxygenated artificial tears.
BENEFITS

BostonSight PROSE treatment can:

• Reestablish a healthy and stable ocular surface environment that supports healing and reduces symptoms

• Improve blurry vision by masking surface corneal irregularities and transmitting a sharp image to the back of the eye

• Prevent further damage by protecting the cornea against the environment and eyelids

SYMPTOMS AND TREATMENT SUCCESS

In 2010, BostonSight conducted an online survey of more than 1,000 people with corneal disease.

SYMPTOMS

For the 200 respondents diagnosed with keratoconus, keratoglobus or pellucid marginal degeneration, including 120 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 of discomfort

TREATMENT SUCCESS

When asked about success with a variety of treatments:

• 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 BostonSight PROSE treatment

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BOSTONSIGHT NETWORK

BostonSight PROSE treatment is available through a growing network of top-ranked academic medical centers and clinics across the U.S. Each provider site is independently operated, managing their own scheduling and insurance and providing ongoing care.

BostonSight PROSE treatment teams include cornea specialist ophthalmologists, and optometrists who have completed a BostonSight PROSE Clinical Fellowship. Clinical Fellows use a proprietary DTF® CAD/CAM system to design each device precisely to the patient’s unique eye shape. All devices are manufactured at BostonSight’s state-of-the-art lab.

BostonSight PROSE doctors work with patients, their support systems, and other medical providers to understand each patient’s specific needs and reach treatment goals together.

ABOUT BOSTONSIGHT

BostonSight, located in Needham, MA, is a world renowned nonprofit eye healthcare organization. It’s mission is to improve the quality of life for patients and their families by transforming the understanding, treatment and care of complex corneal disease.

Since 1992, BostonSight has restored sight to thousands of patients from around the world.

To learn more please visit www.bostonsight.org.

SCHEDULE A CONSULTATION

For more information or to set up a consultation, visit www.bostonsight.org/consult.

INSURANCE COVERAGE

Many major insurance carriers cover PROSE treatment and services. Financial assistance may be available for those who qualify. Check with your local BostonSight Network Clinic.

FOR PHYSICIAN REFERRALS

To refer a patient for treatment at BostonSight, Needham, MA, visit www.bostonsight.org/referrals.

To refer a patient to another BostonSight Network Clinic, visit www.bostonsight.org/referrals-providers.
BOSTONSIGHT NETWORK

ALKEK EYE CENTER
Baylor College of Medicine, Houston, TX

BASCOM PALMER EYE INSTITUTE
University of Miami, Plantation, FL

BOSTONSIGHT
Needham, MA

BROOKE ARMY MEDICAL CENTER
San Antonio, TX

FLAUM EYE INSTITUTE
University of Rochester, Rochester, NY

ILLINOIS EYE AND EAR INFIRMARY
University of Illinois College of Medicine, Chicago, IL

KELLOGG EYE CENTER
University of Michigan, Ann Arbor, MI

MASSACHUSETTS EYE AND EAR
Boston, MA

NORTHWELL HEALTH
Great Neck, NY

UNIVERSITY OF CALIFORNIA
San Francisco, CA

USC ROSKI EYE INSTITUTE
University of Southern California, Los Angeles, CA

WEILL CORNELL EYE ASSOCIATES
Weill Cornell Medical College, New York, NY

WILMER EYE INSTITUTE
at Johns Hopkins, Baltimore, MD

The BostonSight Network is always expanding.
Visit www.bostonsight.org/providers.

COMMUNITY RESOURCES

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WWW.BOSTONSIGHT.ORG/EBULLETIN

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Patient support organizations
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