



BOSTONSIGHT

Caring for Your BostonSight® PROSE Patient

For Primary Eye Care Providers and Referring Doctors

Ongoing and Follow-up Care

Ongoing Care by Primary Eye Care Provider

BostonSight recommends that patients continue in the care of their primary eye care provider (PECP) during and after BostonSight PROSE treatment. The PROSE treatment team will reach out to the PECP or specialists for coordination of care regarding active management issues as required, and we encourage the PECP or specialist to reach out to us as well. We recommend that patients follow-up with their referring eye doctor within two to three weeks after completion of PROSE treatment, and continue to see their PECP or specialist on at least an annual basis, more frequently as recommended by that doctor.

Follow-up Care with BostonSight PROSE Provider

We schedule patients living within a three to four hour driving distance for evaluation at BostonSight three to six months after completion of customization, and then annually for a comprehensive evaluation of PROSE treatment. Patients living at a greater distance should return every one to two years, for a comprehensive evaluation of PROSE treatment. We are happy to see any patient sooner, or at more frequent intervals, for any problems that cannot be resolved by the PECP or local sub-specialist. BostonSight does not offer routine eye exams.

Expectations for BostonSight PROSE Treatment

- Most patients should be able to wear their BostonSight PROSE devices comfortably every day for most or all waking hours. Localized discomfort or declining tolerance could signal a problem and warrants attention by the PECP, specialist, or PROSE doctor.
- For patients with irregular astigmatism or corneal ectasia, there should be improved visual acuity.
- For patients with ocular surface disease, there should be improvement and/or resolution of pain, burning, and photophobia, with reduced dependence on topical lubricants.
- For patients with non-healing or recurrent epithelial defects, there should be greater stability of the ocular surface.

Limitations of BostonSight® PROSE Treatment

- Endothelial dysfunction: Despite high oxygen transmissibility, PROSE devices require adequate endothelial function for successful wear, because of limbus-to-limbus coverage of the cornea. Pre-existing microcystic corneal epithelial edema will increase with device wear. Eyes that have undergone penetrating or lamellar keratoplasty, and those with endothelial disease but no evidence of epithelial edema, are evaluated at consultation to confirm the availability of adequate functional endothelial reserve for PROSE treatment. Eyes with microcystic corneal epithelial edema at baseline are not candidates for PROSE treatment.
- Higher order aberrations: Not every patient with corneal ectasia or post-LASIK ectasia and a clear cornea can be fully corrected with PROSE treatment. Higher order aberrations (HOAs) may limit BCVA with PROSE treatment. Such HOAs are typically identified at initial consultation, and taken into consideration in the decision to proceed with PROSE treatment.
- Glaucoma: High intra-ocular pressure interferes with tolerance of PROSE devices by contributing to epithelial edema. Topical glaucoma medications may exacerbate ocular surface disease and preclude tolerance of PROSE devices. Customization and tolerance of PROSE devices in eyes with filtering blebs or tube shunts is achieved in less than 50% of cases.
- Dry Eye syndrome: Some patients with Dry Eye syndrome may have pain, believed to be neuropathic, that is not relieved by PROSE treatment.

Clinical Guide to BostonSight PROSE Treatment for Doctors

Symptoms

If a patient experiences:

- Persistent redness/soreness not characteristic of underlying disease
- Increased sensitivity to light while wearing the devices
- Eye pain or burning with devices in place or after removal
- Presence of mucous discharge

The patient should discontinue wear of their PROSE device(s) and seek medical evaluation by their ophthalmologist, cornea specialist, or optometrist.

Device Movement and Corneal Contact

- In contrast to corneal contact lenses, there should be little or no movement of the prosthetic device.
- PROSE devices should not contact the cornea. Absence of contact can be confirmed by visualizing the intervening fluid reservoir with oblique slit beam illumination.
- The fluid reservoir should be free of air. If air bubble(s) are present, prosthetic device reapplication is necessary for comfort and to prevent local desiccation.

Incidental Findings

- Conjunctival “hooding” or sectoral conjunctival folds overriding the limbus during prosthetic device wear are common and acceptable. We have not found association with any pathologic process.
- The patient may need a different spectacle prescription for use with PROSE devices, due to the refracting power of the fluid reservoir and front surface power of the prosthetic device. Any residual cylinder found on over-refraction is lenticular in origin.

Abnormal Findings

- PROSE devices should not induce corneal edema. Once IOP, medicamentosa, and endothelial dysfunction are eliminated as contributory, reassessment of prosthetic function by a PROSE doctor is warranted.
- There should be no fluorescein staining of either cornea or conjunctiva, upon removal of a PROSE device. Staining suggests conjunctival or corneal molding or abrasion, and warrants reassessment by a PROSE doctor.
- Infectious keratitis in the setting of PROSE treatment is rare. Any infiltrative or ulcerative keratitis should be managed as one would manage any contact-lens-associated infiltrate or ulcer.

Our PROSE doctors are available at 781-726-7337 for guidance or advice on any of the matters listed above. An after-hours emergency number is provided at this number.

Application, Removal, Use and Care Tips

Application and Removal

Patients are trained and equipped to manage PROSE device application and removal.

If you wish to remove a patient’s prosthetic device, the use of a standard RGP plunger is recommended.

- We typically ask the patient to tip their head back and look down. We retract the upper lid, and attach the plunger to the prosthetic device at 12 o’clock location, near, but not overlapping the edge. Gentle traction on the adherent plunger lifts the edge, breaking the fluid seal.
- A faint “snap” may be heard and palpated as the fluid seal breaks. Gentle compression of the globe adjacent to the prosthetic device edge can be helpful in breaking the seal. Excessive force should not be required to break the seal and remove the PROSE device.
- Pull the prosthetic device directly away from the cornea, avoiding rotation, dragging, or tilting that might abrade the cornea.

For detailed instructions on application, removal and care of PROSE devices please refer to our *BostonSight PROSE Treatment Guide: Prosthetic Use and Care* at: www.bostonsight.org/device-care or view our *BostonSight® PROSE Treatment Application and Removal Video* at: www.bostonsight.org/PROSE-treatment/Application-and-Removal-Video.

Device Marking –R and L

For patients with prosthetic devices for both eyes:

- The RIGHT device is marked with ONE black dot.
- The LEFT device will have either NO dot at all or TWO black dots.

Prosthetic devices should be inserted with the dot(s) oriented at the 12 o'clock position. The appropriate location of the dot while the prosthetic device is worn may be fixed at 12 o'clock, fixed elsewhere, or not fixed. Patients are generally advised by their PROSE provider as to the proper location of the dots on the eye.

Managing Debris Accumulation

- Front surface fouling: You, or the patient, may use one drop of sterile preservative free saline or sterile preservative free artificial tears on the end of a Q-tip to wipe the outside surface of the prosthetic device. This can be repeated several times daily as required. Alternatively, prosthetic devices can be removed, cleaned with Optimum ESC cleaner by LOBOB™, rinsed thoroughly with preservative free saline and reapplied. Persistent surface debris accumulation may signal the need for repeat plasma treatment of the prosthetic devices in our lab to improve wettability. Your patient has received instructions on how to arrange for a repeat plasma treatment. Increase mucus production may signal activation of endogenous ocular surface disease, hypersensitivity to solutions or medications, or giant papillary conjunctivitis. These processes should be considered if the interval between plasma treatments is decreasing.
- Debris in the reservoir: Reservoir debris may accumulate to the point of reducing vision, necessitating PROSE device removal, cleaning, and reapplication several times daily. This is common with patients with GVHD and Stevens Johnson syndrome. If there is increasing need for cleaning and reapplication, the status of ocular surface disease and prosthetic function must be re-evaluated.

Napping, Swimming or Showering with PROSE Devices

- Overnight wear of PROSE devices is not advised. In addition, we suggest limiting naps while wearing PROSE devices to thirty minutes.
- Patients may swim while wearing PROSE devices with the use of watertight goggles.
- Patients may shower while wearing PROSE devices as long as care is taken to avoid direct exposure of the face and eyes to the water stream.

Eye Drops

- Artificial tears may be used over PROSE devices to lubricate the surface.
- Prescription drops will not enter the reservoir, so the efficacy of drops applied over the PROSE device(s) is not assured. Medications for glaucoma and other conditions should be scheduled before prosthetic device application or after removal.

Quick Resource Links

- BostonSight PROSE Treatment Guide: Prosthetic Device Use and Care - www.bostonsight.org/device-care
- BostonSight PROSE Treatment: Application and Removal Video - www.bostonsight.org/PROSE-treatment/Application-and-Removal-Video.
- FAQ for Patients New to BostonSight PROSE – www.bostonsight.org/new-FAQ
- FAQ for BostonSight PROSE Patients - www.bostonsight.org/FAQ
- BostonSight PROSE: Information for Patients and Doctors - www.bostonsight.org/PROSE-info
- Physician Referral Form – www.bostonsight.org/referrals
- Materials Order Form -www.bostonsight.org/materials-request
- Comprehensive Indications List: www.bostonsight.org/indications

- Insurance Coverage Information – www.bostonsight.org/insurance
- Product and Accessory Buying Guide – www.bostonsight.org/products
- Patient Support Resources – www.bostonsight.org/patient-resources
- BostonSight PROSE Provider Locations – www.bostonsight.org/providers
- PROSE Eye View Monthly eBulletin – www.bostonsight.org/ebulletin