



# MASSACHUSETTS

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## Medical Policy Gas Permeable Scleral Contact Lens

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### Policy Number: 371

BCBSA Reference Number: 9.03.25A (For Plan internal use only)

NCD/LCD: NA

### Related Policies

- Corneal Topography/Computer-Assisted Corneal Topography/Photokeratoscopy, #[301](#)
- Implantation of Intrastromal Corneal Ring Segments, #[235](#)

### Policy

#### Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO Blue<sup>SM</sup> and Medicare PPO Blue<sup>SM</sup> Members

Rigid gas permeable scleral lens may be considered **MEDICALLY NECESSARY** for patients who have not responded to topical medications or standard spectacle or contact lens fitting, for the following conditions:

- Corneal ectatic disorders (e.g., keratoconus, keratoglobus, pellucid marginal degeneration, Terrien’s marginal degeneration, Fuchs’ superficial marginal keratitis, post-surgical ectasia);
- Corneal scarring and/or vascularization;
- Irregular corneal astigmatism (e.g., after keratoplasty or other corneal surgery);
- Ocular surface disease (e.g., severe dry eye, persistent epithelial defects, neurotrophic keratopathy, exposure keratopathy, graft vs. host disease, sequelae of Stevens Johnson syndrome, mucus membrane pemphigoid, post-ocular surface tumor excision, post-glaucoma filtering surgery) with pain and/or decreased visual acuity.

### Prior Authorization Information

#### Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

#### Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	Prior authorization is <b>not required</b> .

<b>Commercial PPO and Indemnity</b>	Prior authorization is <b>not required</b> .
<b>Medicare HMO Blue<sup>SM</sup></b>	Prior authorization is <b>not required</b> .
<b>Medicare PPO Blue<sup>SM</sup></b>	Prior authorization is <b>not required</b> .

### CPT Codes / HCPCS Codes / ICD Codes

*Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.*

*Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.*

*The following codes are included below for informational purposes only; this is not an all-inclusive list.*

**The above medical necessity criteria MUST be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:**

### HCPCS Codes

HCPCS codes:	Code Description
S0515	Scleral lens, liquid bandage device, per lens
V2531	Contact lens, sclera, gas permeable, per lens

**The following ICD Diagnosis Codes are considered medically necessary when submitted with the HCPCS codes above if medical necessity criteria are met:**

### ICD-10 Diagnosis Codes

ICD-10-CM Diagnosis codes:	Code Description
H04.121	Dry eye syndrome of right lacrimal gland
H04.122	Dry eye syndrome of left lacrimal gland
H04.123	Dry eye syndrome of bilateral lacrimal glands
H04.129	Dry eye syndrome of unspecified lacrimal gland
H16.401	Unspecified corneal neovascularization, right eye
H16.402	Unspecified corneal neovascularization, left eye
H16.403	Unspecified corneal neovascularization, bilateral
H16.409	Unspecified corneal neovascularization, unspecified eye
H16.411	Ghost vessels (corneal), right eye
H16.412	Ghost vessels (corneal), left eye
H16.413	Ghost vessels (corneal), bilateral
H16.419	Ghost vessels (corneal), unspecified eye
H16.421	Pannus (corneal), right eye
H16.422	Pannus (corneal), left eye
H16.423	Pannus (corneal), bilateral
H16.429	Pannus (corneal), unspecified eye
H16.431	Localized vascularization of cornea, right eye
H16.432	Localized vascularization of cornea, left eye
H16.433	Localized vascularization of cornea, bilateral
H16.439	Localized vascularization of cornea, unspecified eye
H16.441	Deep vascularization of cornea, right eye

H16.442	Deep vascularization of cornea, left eye
H16.443	Deep vascularization of cornea, bilateral
H16.449	Deep vascularization of cornea, unspecified eye
H17.00	Adherent leukoma, unspecified eye
H17.01	Adherent leukoma, right eye
H17.02	Adherent leukoma, left eye
H17.03	Adherent leukoma, bilateral
H17.10	Central corneal opacity, unspecified eye
H17.11	Central corneal opacity, right eye
H17.12	Central corneal opacity, left eye
H17.13	Central corneal opacity, bilateral
H17.811	Minor opacity of cornea, right eye
H17.812	Minor opacity of cornea, left eye
H17.813	Minor opacity of cornea, bilateral
H17.819	Minor opacity of cornea, unspecified eye
H17.821	Peripheral opacity of cornea, right eye
H17.822	Peripheral opacity of cornea, left eye
H17.823	Peripheral opacity of cornea, bilateral
H17.829	Peripheral opacity of cornea, unspecified eye
H17.89	Other corneal scars and opacities
H17.9	Unspecified corneal scar and opacity
H18.40	Unspecified corneal degeneration
H18.421	Band keratopathy, right eye
H18.422	Band keratopathy, left eye
H18.423	Band keratopathy, bilateral
H18.429	Band keratopathy, unspecified eye
H18.43	Other calcareous corneal degeneration
H18.441	Keratomalacia, right eye
H18.442	Keratomalacia, left eye
H18.443	Keratomalacia, bilateral
H18.449	Keratomalacia, unspecified eye
H18.451	Nodular corneal degeneration, right eye
H18.452	Nodular corneal degeneration, left eye
H18.453	Nodular corneal degeneration, bilateral
H18.459	Nodular corneal degeneration, unspecified eye
H18.461	Peripheral corneal degeneration, right eye
H18.462	Peripheral corneal degeneration, left eye
H18.463	Peripheral corneal degeneration, bilateral
H18.469	Peripheral corneal degeneration, unspecified eye
H18.49	Other corneal degeneration
H18.601	Keratoconus, unspecified, right eye
H18.602	Keratoconus, unspecified, left eye
H18.603	Keratoconus, unspecified, bilateral
H18.609	Keratoconus, unspecified, unspecified eye
H18.611	Keratoconus, stable, right eye
H18.612	Keratoconus, stable, left eye
H18.613	Keratoconus, stable, bilateral
H18.619	Keratoconus, stable, unspecified eye
H18.621	Keratoconus, unstable, right eye
H18.622	Keratoconus, unstable, left eye
H18.623	Keratoconus, unstable, bilateral

H18.629	Keratoconus, unstable, unspecified eye
H18.70	Unspecified corneal deformity
H18.711	Corneal ectasia, right eye
H18.712	Corneal ectasia, left eye
H18.713	Corneal ectasia, bilateral
H18.719	Corneal ectasia, unspecified eye
H18.721	Corneal staphyloma, right eye
H18.722	Corneal staphyloma, left eye
H18.723	Corneal staphyloma, bilateral
H18.729	Corneal staphyloma, unspecified eye
H18.731	Descemetocoele, right eye
H18.732	Descemetocoele, left eye
H18.733	Descemetocoele, bilateral
H18.739	Descemetocoele, unspecified eye
H18.791	Other corneal deformities, right eye
H18.792	Other corneal deformities, left eye
H18.793	Other corneal deformities, bilateral
H18.799	Other corneal deformities, unspecified eye
H18.831	Recurrent erosion of cornea, right eye
H18.832	Recurrent erosion of cornea, left eye
H18.833	Recurrent erosion of cornea, bilateral
H18.839	Recurrent erosion of cornea, unspecified eye
H52.211	Irregular astigmatism, right eye
H52.212	Irregular astigmatism, left eye
H52.213	Irregular astigmatism, bilateral
H52.219	Irregular astigmatism, unspecified eye
L12.1	Cicatricial pemphigoid
L51.1	Stevens-Johnson syndrome
L51.3	Stevens-Johnson syndrome-toxic epidermal necrolysis overlap syndrome
T85.318A	Breakdown (mechanical) of other ocular prosthetic devices, implants and grafts, initial encounter
T85.318D	Breakdown (mechanical) of other ocular prosthetic devices, implants and grafts, subsequent encounter
T85.318S	Breakdown (mechanical) of other ocular prosthetic devices, implants and grafts, sequela
T85.328A	Displacement of other ocular prosthetic devices, implants and grafts, initial encounter
T85.328D	Displacement of other ocular prosthetic devices, implants and grafts, subsequent encounter
T85.328S	Displacement of other ocular prosthetic devices, implants and grafts, sequela
T85.398A	Other mechanical complication of other ocular prosthetic devices, implants and grafts, initial encounter
T85.398D	Other mechanical complication of other ocular prosthetic devices, implants and grafts, subsequent encounter
T85.398S	Other mechanical complication of other ocular prosthetic devices, implants and grafts, sequela
T86.8401	Corneal transplant rejection, right eye
T86.8402	Corneal transplant rejection, left eye
T86.8403	Corneal transplant rejection, bilateral
T86.8409	Corneal transplant rejection, unspecified eye
T86.8411	Corneal transplant failure, right eye
T86.8412	Corneal transplant failure, left eye
T86.8413	Corneal transplant failure, bilateral

T86.8419	Corneal transplant failure, unspecified eye
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## Description

Scleral contact lenses create an elevated chamber over the cornea that can be filled with artificial tears. The base or haptic is fit over the less sensitive sclera. Scleral contact lens has been proposed to provide optical correction, mechanical protection, relief of symptoms, and facilitation of healing for a variety of corneal conditions. Specifically, the scleral contact lens may neutralize corneal surface irregularities and, by covering the corneal surface in a reservoir of oxygenated artificial tears, function as a liquid bandage for corneal surface disease. This may be called prosthetic replacement of the ocular surface ecosystem (PROSE).

The development of materials with high gas permeability and technologic innovations in design and manufacturing has stimulated the use of scleral lenses. The Boston Ocular Surface Prosthesis (Boston Foundation for Sight) is a scleral contact lens that is custom fit using computer-aided design and manufacturing (i.e., computerized lathe). Another design is the Jupiter mini-scleral gas permeable contact lens (Medlens Innovations and Essilor Contact Lens). The Jupiter scleral lens is fit using a diagnostic lens series. The Procornea (Eerbeek) scleral lens was developed in Europe. There are 4 variations of the Procornea: spherical, front-surface toric, back-surface toric, and bitoric. Lenses are cut with submicron lathing from a blank. All gas permeable scleral lens are considered investigational regardless of the commercial name, the manufacturer or FDA approval status except when used for the medically necessary indications that are consistent with the policy statement.

## Summary

The literature on gas permeable scleral contact lenses consists of a number of large case series that enrolled more than 100 patients. The largest series was a retrospective review of more than 538 patients with more than 40 different clinical indications who were fitted with the Boston Ocular Surface Prosthesis. These case series report an improvement in health outcomes in patients who have failed all other available treatments. These uncontrolled studies are suggestive of benefit, but the lack of controlled trials precludes a definite conclusion on treatment benefit.

Clinical input was obtained and supports the medical necessity of the gas permeable scleral contact lens in cases of corneal ectatic disorders, corneal scarring and/or vascularization, irregular corneal astigmatism, and ocular surface disease with pain and/or decreased visual acuity when all other available treatments have failed. For patients with ocular surface diseases who have not responded adequately to topical medications, there is a lack of alternative treatments. For patients with corneal ectatic disorders and irregular astigmatism who have failed standard contact lens, the alternative of corneal transplant surgery is associated with risks. Therefore, the gas permeable scleral contact lens may be considered medically necessary in these patient populations.

## Policy History

Date	Action
11/2022	Annual policy review. Policy updated with literature review through October 2022. No references added. Policy statements unchanged.
10/2020	Clarified coding information.
3/2020	Policy updated with literature review through February 1, 2020. No references added. Policy statements unchanged.
10/2015	Clarified coding information.
7/2014	Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.
1/2014	Coding information clarified.
2/2013	New policy describing ongoing coverage when all other treatments have failed.

## Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)  
[Managed Care Guidelines](#)  
[Indemnity/PPO Guidelines](#)  
[Clinical Exception Process](#)  
[Medical Technology Assessment Guidelines](#)

## References

1. Rosenthal P, Croteau A. Fluid-ventilated, gas-permeable scleral contact lens is an effective option for managing severe ocular surface disease and many corneal disorders that would otherwise require penetrating keratoplasty. *Eye Contact Lens* 2005; 31(3):130-4.
2. Jacobs DS, Rosenthal P. Boston scleral lens prosthetic device for treatment of severe dry eye in chronic graft-versus-host disease. *Cornea* 2007; 26(10):1195-9.
3. Stason WB, Razavi M, Jacobs DS et al. Clinical benefits of the Boston Ocular Surface Prosthesis. *Am J Ophthalmol* 2010; 149(1):54-61.
4. Jupiter DG, Katz HR. Management of irregular astigmatism with rigid gas permeable contact lenses. *CLAO J* 2000; 26(1):14-7.
5. Schornack MM, Patel SV. Scleral lenses in the management of keratoconus. *Eye Contact Lens* 2010; 36(1):39-44.
6. Visser ES, Visser R, van Lier HJ et al. Modern scleral lenses part I: clinical features. *Eye Contact Lens* 2007; 33(1):13-20.