EUROPA SCLERAL™ Fitting Guide

EUROPA SCLERAL
UNIVERSAL FIT TECHNOLOGY

Visionary Optics
uniquely specialized contact lenses

INDICATIONS

1. Managing corneal irregularity resulting from keratoconus, corneal transplant, trauma, or surgery.
2. Managing ocular surface disease resulting from severe dry eye, ocular graft versus host disease, and Stevens-Johnson syndrome.
3. An alternative for patients who do not achieve acceptable vision with soft lenses.

DESCRIPTION

The EUROPA SCLERAL contact lens is available in a 16mm and 18 mm diameter lens. EUROPA SCLERAL lenses rest on the sclera and completely vault the cornea allowing it to hold a fluid reservoir. The EUROPA SCLERAL is intended to be a 2nd generation Jupiter Scleral lens that has been uniquely designed so that it is able to successfully fit a wide variety of cornea and scleral geometries. Multiple fitting sets are not necessary to fit oblate and prolate corneas, as is often the case with other available scleral lens designs. The EUROPA SCLERAL contact lens is designed to manage mild to severe levels of corneal irregularity and ocular surface disease.

PARAMETERS

EUROPA SCLERAL PARAMETERS	
BASE CURVES:	ANY
DIAMETER:	16.0 & 18.0 MM
BV POWERS:	MADE TO ORDER
CYLINDER (TORIC):	–0.25D TO –15.00 D IN 0.25D STEPS
AXIS (TORIC):	1° TO 180° IN 1° STEPS
DIAGNOSTIC LENSES:	7 OR 14 PRE-DESIGNED LENSES

- Back surface haptic toricity is available
- The EUROPA SCLERAL lens can be notched

Visionary Optics Guarantee:
All lenses are manufactured to specification and free from defects.

Available in Boston XO™ and Boston XO2™ material. All lenses are plasma treated to ensure surface wetting.

The EUROPA SCLERAL lens can be manufactured with front surface cylinder power to correct residual astigmatism. Front surface toric lenses are stabilized with double slab-off prism. Back surface toricity is available to improve sclera alignment. The haptic portion of the lens can be notched in order to bypass significant scleral obstacles.

DIAGNOSTIC LENS FITTING

Diagnostic lenses are used to fit the EUROPA SCLERAL lens. Fitting sets include diagnostic lenses that vary in sagittal depth. Increasing the dioptric value of the base curve increases the sagittal depth of the lens. The fitting philosophy of the EUROPA SCLERAL lens is to vault the cornea by 100 to 300 microns with the lens haptic aligning the sclera. A well fit lens should semi-seal to the eye without movement.

1. The first step in the fitting process is to select an initial diagnostic lens. Start by placing the diagnostic lens with a 46 diopter base curve on the eye (see application and removal technique at the end of the guide), unless the patient has keratoconus, then start with the 50 diopter base curve. Before application, fill the lens with non-preserved saline and stain it with a fluorescein strip for diagnostic purposes.
2. Assess the amount of vault of the diagnostic lens by comparing the thickness of the stained reservoir with the thickness of the lens by turning the slit lamp beam at a 45 degree angle to view the lens/reservoir/cornea in cross-section (Figure 1). Ideally, the central reservoir thickness should be equal to the lens thickness. Scleral lenses settle by approximately 200 microns after 60 minutes of wear, which will reduce overall vault to achieve an ideal amount of fluid reservoir.
3. If the initial diagnostic lens is too steep or too flat then choose another diagnostic lens – either steeper or flatter – until you achieve a vault that matches the lens thickness. It's more efficient to choose additional diagnostic lenses in 2 to 4 dioptric steps when bracketing the lens fit.
4. Next, observe the lens fit with a diffuse cobalt light and Wratten filter. The lens should completely clear the cornea, including the limbus (Figure 2).
5. Next, use a diffuse white light to observe the haptic portion of the lens, which is resting on the sclera. The weight of the lens should be evenly distributed and should not blanch the blood vessels of the bulbar conjunctiva (Figure 3); however, intermittent areas of blanching are usually acceptable. Contact Visionary Optics' consultation for assistance if the best diagnostic lens is inadequately fitting the eye.
6. The final step of the fitting process is to perform a sphere-cylindrical over-refraction to determine power.

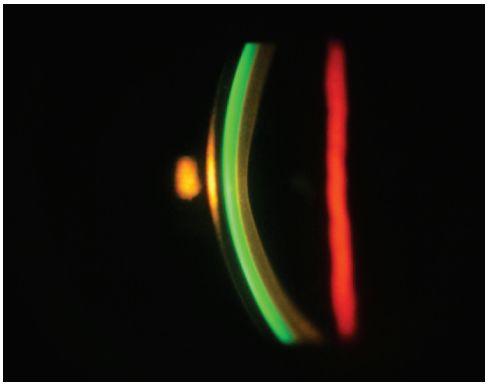

Figure 1

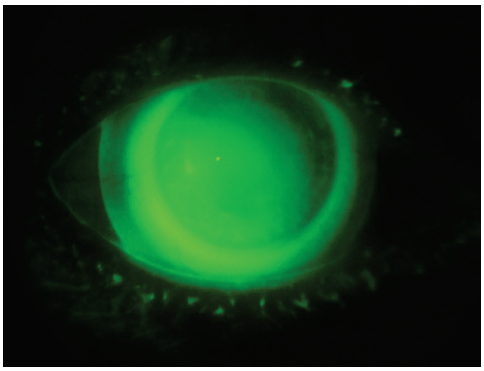

Figure 2

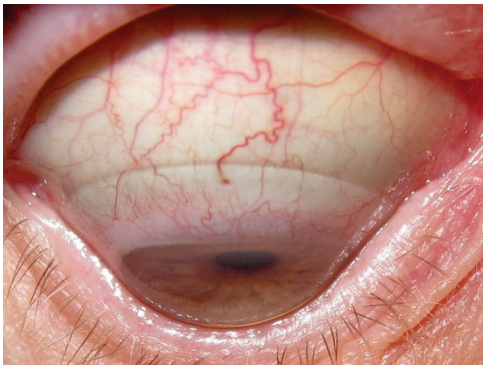

Figure 3

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TROUBLESHOOTING

BUBBLES
Bubbles are secondary to loss of saline during lens application. To avoid bubbles; make sure the lens is completely filled with saline prior to application.

EDGE LIFT
The final lens will probably require a toric back surface haptic. Contact Visionary Optics' consultation for assistance.

LIMBAL BEARING
If the lens is not completely clearing the limbus, contact consultation for adjustments to increase the lens diameter.

LENS SEAL OFF
If the scleral lens is fitting too tight, it will cause the patient discomfort and the lens will be difficult to remove. Consultation will help to flatten the lens haptic to loosen the fit.

RESERVOIR DEBRIS
Approximately 50% of patients who wear scleral lenses will have to rinse and refill their lens 1-2X/day to remove debris that accumulates under the lens, which causes their vision to look cloudy.

RESIDUAL ASTIGMATISM
If a sphere-cylinder over-refraction results in astigmatism, determine if this is secondary to lens flexure or lenticular astigmatism. Lens flexure will result in an astigmatic reading on over-keratometry or over-topography measurement. Flexure can be eliminated by increasing the center thickness by 0.1mm to 0.2mm. If the lens is not flexing, then the residual astigmatism is lenticular and can be corrected for with front surface toric power or by prescribing glasses to be worn in conjunction with the scleral lens.

APPLICATION & REMOVAL TIPS

APPLICATION
1. Center the lens on a large scleral plunger. Alternatively; form a "tripod" with the thumb, index, and middle finger, with the lens positioned in the center.
2. Fill the lens with non-preserved saline solution.
3. The patient should lean forward with their head down, while opening the eyelids as widely as needed.
4. Apply the lens to the eye surface.

REMOVAL
1. Moisten a contact lens plunger with a few drops of saline.
2. Position the plunger on the lens near the edge so that the plunger is just inside the lens. Do not position the plunger on the center of the scleral lens, as the suction from the lens will cause difficulty with removal.
3. Lift the edge of the lens and remove the lens from the eye.

Please visit the Scleral Lens Education Society (www.sclerallens.org) for a link to a 10 minute video on application, removal, and care of scleral contact lenses.

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