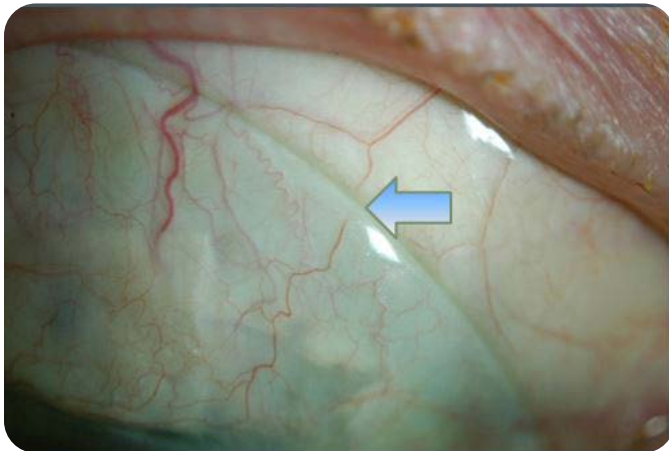


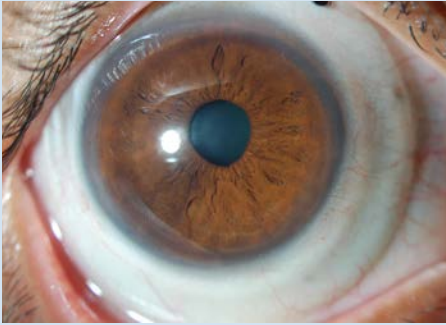
Troubleshooting Mini-Guide

For 16-19mm scleral lenses



FITTING GOALS FOR BostonSight SCLERAL

After lens has settled for 20-30 minutes.



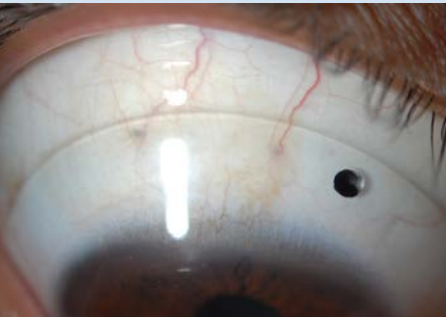
The lens centers well and is virtually motionless on blinking. Air bubbles do not intrude under the haptic or optic zone after the lens has been applied.



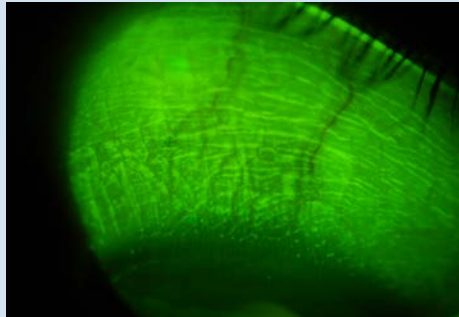
Corneal clearance: The thickness of the fluid compartment over the corneal apex is approximately 200μ to 300μ (in comparison, the center thickness (CT) of the lens is 300μ). Also, vaulting should occur at the limbal area.



Episcleral blood vessels underlying the haptic are not compressed for adequate haptic scleral alignment.



The edge of the lens does not impinge on the bulbar conjunctiva.



There should be minimal-to-no imprint of the edge of the lens on the bulbar conjunctiva upon lens removal.

Accumulation of debris in the fluid reservoir

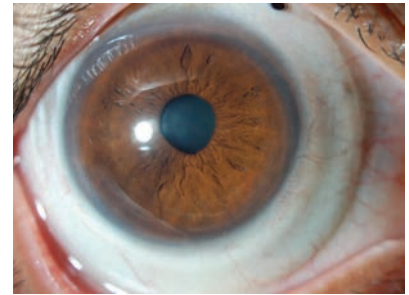
This is common in eyes with distorted corneas that also have a dry eye component, or in ocular surface disease. This should be managed stepwise, as suggested below:

- ① Apply fluorescein over the device to determine excessive exchange or vector for debris intake. If this occurs, then re-evaluate the haptic toricity distribution and steepen haptics as needed, using the graphical representations for each individual hemi-meridian in your FitConnect account.
- ② Minimize central sagittal depth if excessive.
- ③ Consider the use of more viscous fluid in the lens reservoir, such as preservative-free Refresh Celluvisc mixed with preservative-free saline.



Hooding of the limbal bulbar conjunctiva

Loose bulbar conjunctiva is often seen overlapping the peripheral cornea during lens wear. This can be quite impressive. Nevertheless, if the redundant conjunctival tissue is flat, the condition is benign. However, if it is a function of excessive lens suction, this requires a re-design to establish adequate venting by improving haptic scleral alignment.



Diffuse, fine SPK

(The following should be ruled out for lens related causes.)

- ① Residual hydrogen peroxide. This is always associated with stinging on lens application and may indicate the need for a more thorough saline rinse prior to lens application, or the need to replace the platinum catalyst, if this system is used for neutralization.
- ② Sensitivity to wetting/soaking solution used for overnight storage (if any). In these cases, overnight hydrogen peroxide disinfection is recommended.

Development of hypertrophic bulbar conjunctival lesion coincident with the edge of the lens

This may be due to chronic edge impingement and its resolution requires a significant flattening of haptic or change in the lens diameter – either smaller by at least 1mm if this avoids any edge impingement in this area, or larger so that the lens rides over the hypertrophic tissue.

Discrete round or oval depression of the corneal surface present immediately after lens removal

If it pools fluorescein dye, does not stain, and resolves rapidly, it is most likely a dellen due to a sequestered air bubble during lens wear.

TROUBLESHOOTING, continued

Rippled texture of the corneal surface immediately after lens removal

This is common and benign. It probably is due to the absence of the normal shearing forces of blinking that serve, among other things, to smooth the mucin layer on the corneal surface.

Lens-related bulbar conjunctival injection

Common causes include:

- ① Pinguecula, especially the more diffuse type.
- ② Excessive haptic compression and/or edge impingement, most often evaluated upon lens removal as rebound injection.
- ③ Inadequate neutralization of hydrogen peroxide.
- ④ Sensitivity to constituents of contact lens wetting solutions if used for lens soaking.

Edge Impingement

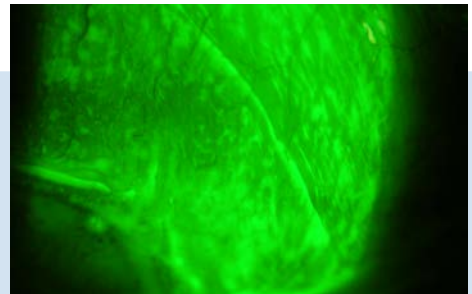
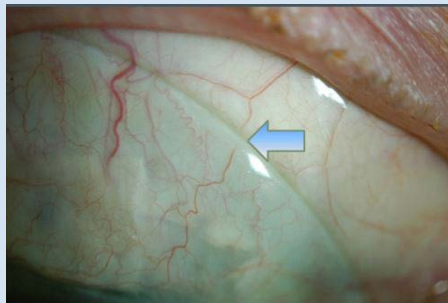
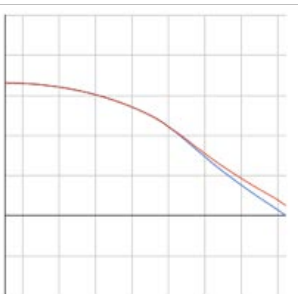
The following are possible causes of localized peripheral edge impingement:

Sectorial/meridional localized edge impingement. This is usually resolved by flattening the haptic in the specified meridian. If you notice edge impingement in a specific meridian, first identify the meridian: 1, 2, 3, or 4, and flatten accordingly using your FitConnect account.

If the impingement noted looks like the one below, and upon lens removal, there's conjunctival staining similar to the image below, the minimal suggested amount of haptic flattening is **200 μ if working with the 18-19mm FitKit and 100 μ if working with the 16-17mm FitKit.**

Example shown is for
18-19mm FitKit.

- 200 +

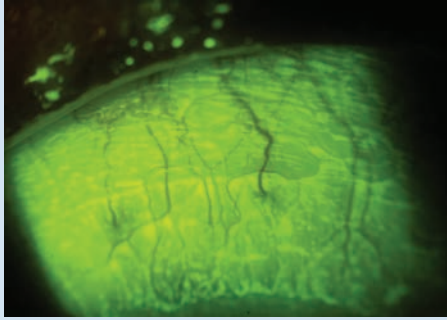


Login to your FitConnect account and use the graphical representations at each meridian to help guide your decision.

For example, if the amount of impingement noted and the conjunctival staining pattern after lens removal looks like the picture above, and it corresponds to Meridian 1, then the haptic should be flattened by at least 200 μ at Meridian 1. Refer to the graphical representation to the left.

TROUBLESHOOTING, continued

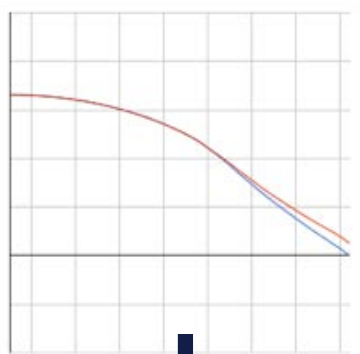
If the impingement noted looks like the one below upon lens removal, then the amount to flatten haptic is **150 μ** if working with the 18-19mm FitKit and **100 μ** if working with the 16-17mm FitKit.



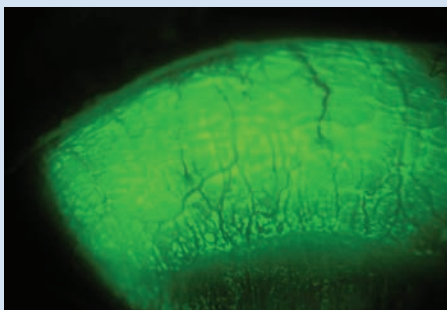
Staining pattern upon lens removal



Flatten haptics
by 150 μ



Example shown is for
18-19mm FitKit.



Fitting endpoint after
modification:
No conjunctival staining

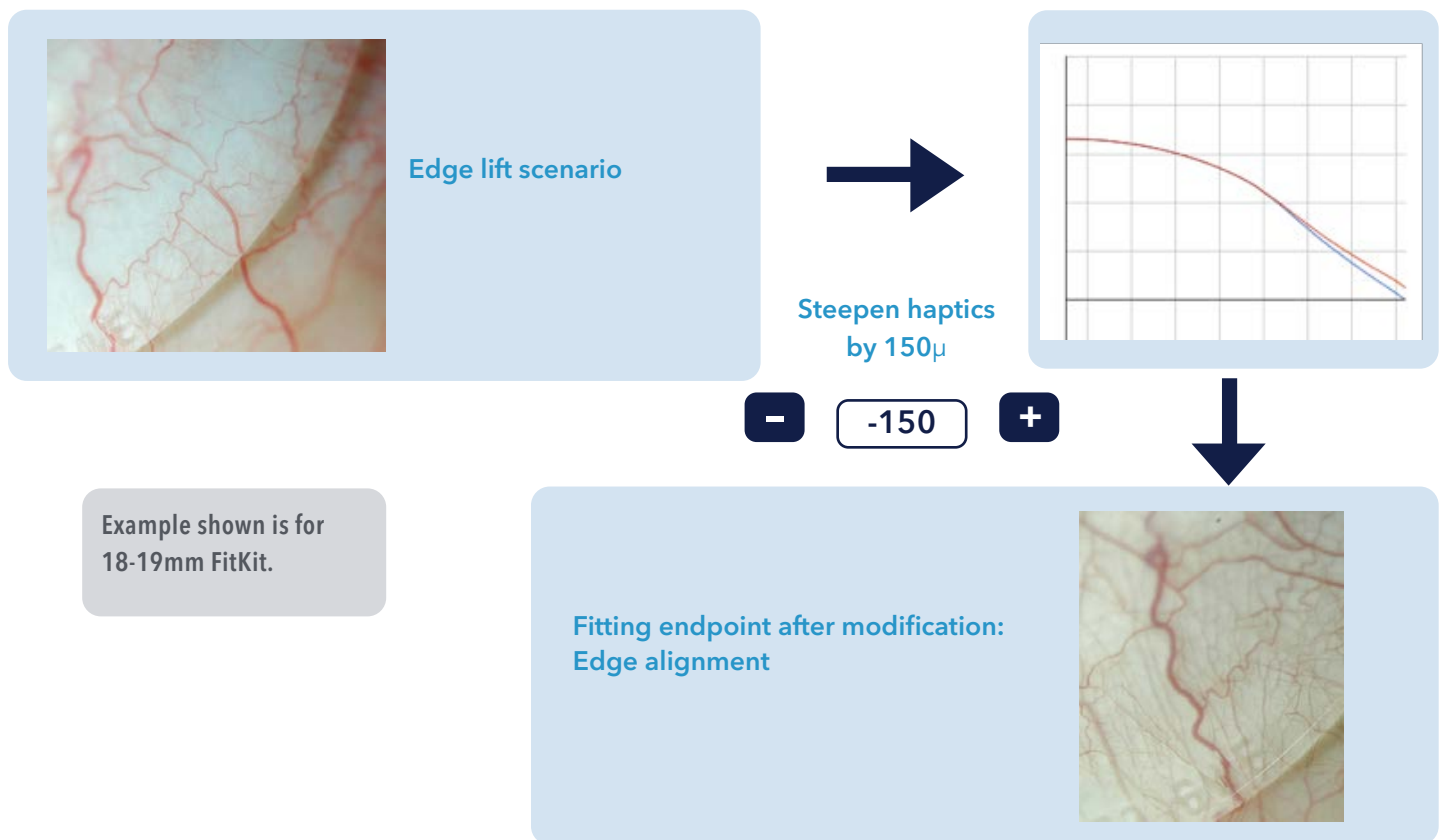
TROUBLESHOOTING, continued

Edge Lift

If edge lift occurs, the haptic should be steepened in the corresponding meridian. First identify which meridian corresponds to the observed edge lift: 1, 2,3, or 4.

For example, if the amount of edge lift noted looks like the picture below, and it corresponds to Meridian 1, then haptic should be steepened by at least **150 μ at Meridian 1 for 18-19mm FitKit and 100 μ for the 16-17 FitKit.**

Log in to your FitConnect account and use the graphical representation at Meridian 1 as shown below.



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