

FITTING GUIDE



PRINT FORM

Comfort SL Fitting Guide

LENS DESIGN:

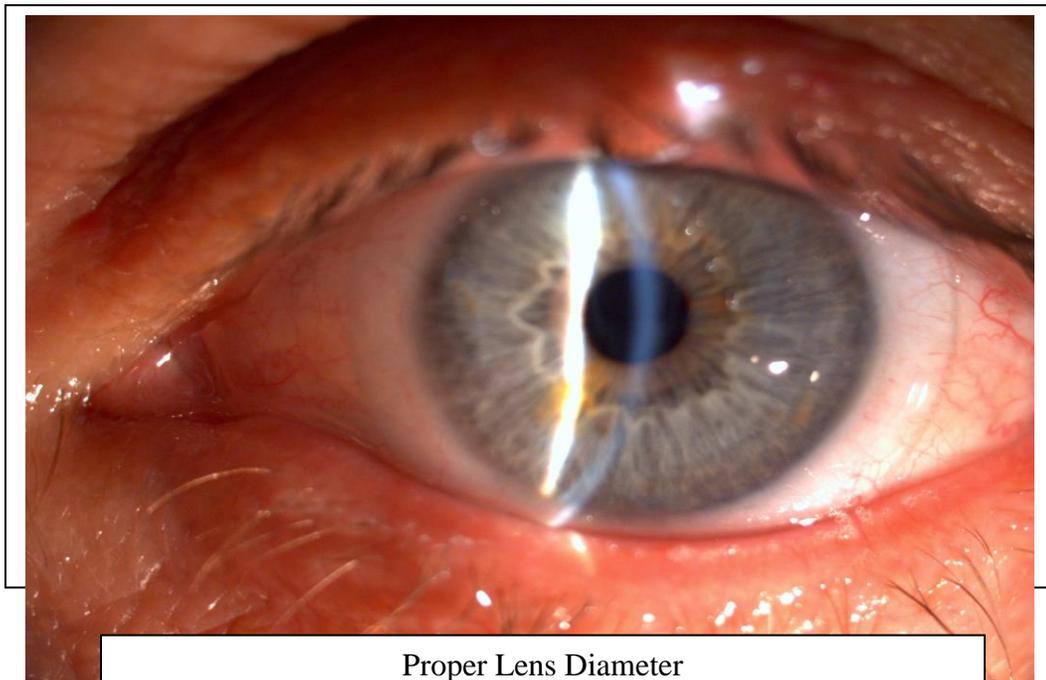
The Comfort SL scleral lens is a semi-sclera design. It is intended for dry non-distorted ametropia eyes. It incorporates a proprietary multiple posterior curve system to obtain corneal alignment. Patients who wear Comfort SL will have unsurpassed comfort and clarity throughout the day. When ordering, all that is required are Ks, Rx, and Corneal Diameter. If corneal distortion is suspected a MAXIM Scleral Lens should be used.

PRE-FITTING EXAMINATION:

Take patient data to include Ks, Rx, and corneal diameter. It is important to obtain accurate measurements in order to create the proper fit.

SELECTING LENS SIZE:

Lens diameter is designed by our consultants and is determined by corneal size. The most common diameter is 16.2mm. If a trial lens fitting is performed choose a 16.2mm/9.0mm lens for corneas that are 10.5mm – 11.5mm corneas. Choose a 16.7mm/9.5mm lens for corneas that are 11.6mm or greater.



Proper Lens Diameter

CHOOSING BASE CURVE & SAG:

The base curve and SAG of the Comfort SL is designed by our consultants and is determined by corneal shape and corneal astigmatism. A properly fit lens will have alignment over the cornea. The ideal vault will have 150 microns clearance over the cornea after settling. When trial lens fitting - for corneas with less than 2.00 diopters of cylinder choose the base curve that is closest to the patient's flat "K". For corneas with 2.00 diopters of cylinder and greater choose the base curve that is at least one diopter steeper than the flat "K".

When trial fitting the Comfort SL follow the guideline listing below.

Optical Diameter Selection: Step 1

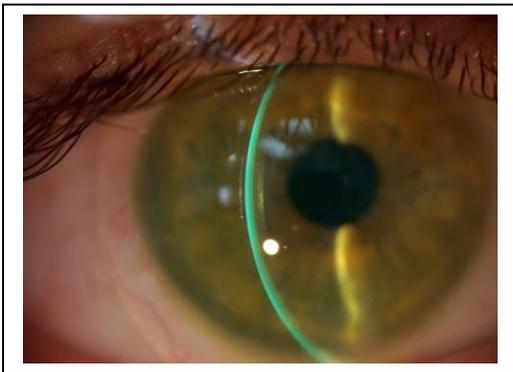
Corneal diameter 10.5mm to 11.5mm: 16.2/9.0 optical zone

Corneal diameter 11.6mm to 12.2mm: 16.7/9.5 optical zone

Base curve/SAG selection: Step 2

Corneal Cylinder less than 2.00D: Fit closest trial lens to flat K as a starting point, if corneal touch is observed select the next highest SAG in the trial set.

Corneal Cylinder greater than 2.00D: Fit closest trial lens that is at least 1 diopter steeper than flat K as starting point, if corneal touch is observed select the next highest SAG in trial set.



Too Much Vault
250 Micron Clearance



Ideal Vault
100 Micron Clearance

CALCULATING LENS POWER:

Lens power is designed by our consultants and is determined by the base curve / flat "K" relationship and spectacle RX. When trial lens fitting an over refraction should be done in spheres first.

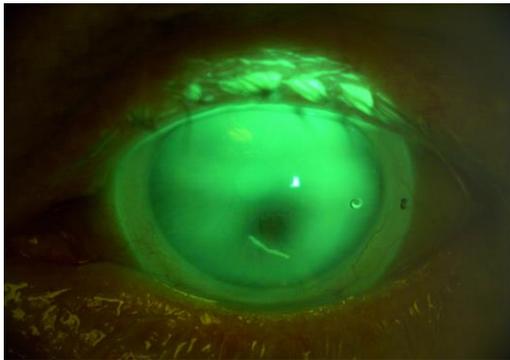
CENTER THICKNESS:

Center thickness is a function of lens design and should be calculated by the laboratory.

FLUORESCEIN PATTERN:

Lens evaluation should be aided by an examination of the fluorescein pattern. It helps to place the fluorescein in the cup or concave surface of the lens at insertion. If there is bearing the SAG value should be increased by 0.1mm for every 1.0mm of touch.

The ideal pattern will align cornea with out any bubbles at the limbus or under the optical cap and it will vault the cornea by 150 microns after settling. Contact your AccuLens consultant for assistance if proper alignment is not observed.



2 mm touch / 4.20 SAG



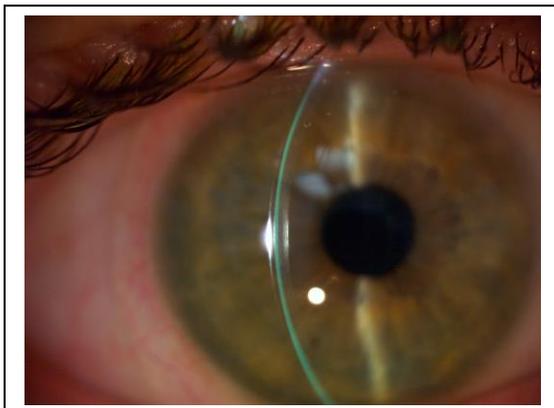
No Touch / 4.40 SAG

EDGE:

A proper edge should not lift off of the sclera or more importantly impinge into it. An edge that lifts excessive will cause lens awareness while an edge that impinges can cause edema, redness and discomfort. If the edge is not aligned with the sclera recheck to make sure that you have the proper **SAG that vaults the cornea**. If you do have the appropriate SAG with an incorrect edge call our consultation department for advice on peripheral curve changes.

IDEAL FIT:

The lens should align the cornea with 150 microns of clearance after settling. There should not be any bubbles under the optical cap (too steep of a sag) or over the limbus (too flat of a sag). A Comfort SL lens will have very minimal to no movement. In addition, attention should be observed at the periphery. There should not be any conjunctival impingement or excessive edge lift with Comfort SL.



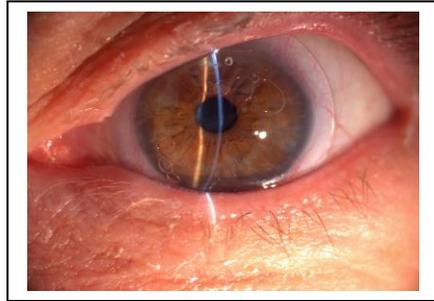
Ideal 100 Micron Clearance



Ideal Edge

Bubbles:

Sometimes at insertion a false bubble can be induced. It is very important when inserting the lens that it be filled fully with saline and placed on the eye with the head down and parallel with the table top. You do not want any bubbles as they will cause the cornea to become dry within those areas.



Induced Bubbles

INSERTION & REMOVAL:

Make sure your patient understands the importance of proper insertion and removal. When inserting a Comfort SL it is important that the concave surface be fully filled with saline so as to reduce the risk of induced unwanted bubbles. Most patients find that holding the lens between the index and middle finger works best. Since Comfort SL tends to settle on the eye, it needs to be pre-loosened before removal. We recommend irrigating with saline and massage the lens prior to blinking the lens out or removing with a DMV suction cup. (refer to our Care and Handling video for more detail)



Proper Position



Two Hand Technique

TROUBLESHOOTING:

While not common, corneal edema may occur in some patients. A lens with too much vaults can cause this. Make sure to re-evaluate your SAG value. *It should be the minimum SAG that vaults with very little or preferably no apical bearing (150microns).* Another cause may be that the periphery of the lens is impinging into the conjunctiva. If this occurs flattening the PC's while maintaining the appropriate SAG is indicated. Lens awareness can occur if there is too much edge lift. Excessive edge lift is caused by either the PC's being too flat or the lens SAG being too low. If excessive edge lift is observed you should first determine if the SAG is appropriate. Often when the SAG is increased, the edge will improve. If the lens SAG is correct then a steeper periphery is indicated. The two most common causes for SPK are either from preservatives in the solution or excessive bearing on the apex. Because these lenses have very little or no movement, tear exchange is very slow to occur. Therefore, it is very important that a benign saline be used when inserting. This will eliminate any possibility of chemical irritation. On rare occasions metabolic debris accumulation can be an issue. Usually the patient will complain of decrease acuity after eight to ten hours wear. If this occurs have the patient remove, clean and re-insert during mid-day. Excessive redness can be a sign that the lens is fitting too tight. Patients may complain that their wearing time is limited to only a few hours a day. Recheck the SAG value to make sure it is at minimum apical vault and adjust as necessary. If the SAG is appropriate then re-design with a flatter periphery.

Issue	Cause	Resolve
Corneal Edema	Too much vault	Re-evaluate lens SAG with fluorescein. Decrease SAG
Corneal Edema	Lens edge impingement	Flatten PCs/Maintain appropriate SAG
Excessive Edge lift	Low SAG	Re-evaluate lens SAG with fluorescein. Increase SAG
Excessive Edge lift/with correct SAG	Flat PC's	Steepen PC's
SPK	Non-preservative free solutions used	Use preservative free solutions
SPK	Excessive bearing on the corneal apex	Re-evaluate lens SAG with fluorescein. Increase SAG
Decreased acuity	Metabolic debris	Remove, clean and re-insert during mid-day
Excessive redness	Tight fit/excessive SAG	Re-evaluate lens SAG with fluorescein. Decrease SAG
Excessive redness/with correct SAG	Tight PC's	Flatten PC's

FITTING PEARLS:

- Lens Diameter should be at least 2mm larger than limbal area of the eye.
- Central bearing, edge lift and or limbal bubbles indicate a flat fit.
- Increase Sag value if there is a central bearing (0.1mm for every 1.0mm of bearing)
- Deep central pooling or central bubbles indicate a steep fit.
- Decrease Sag value if you have a steep fit.
- Ideal fluorescein pattern will be aligned at 150 microns of clearance after settling.
- Edge should not impinge or lift excessively off of the sclera.