FITTING GUIDE: Comfort SL

Lens Design

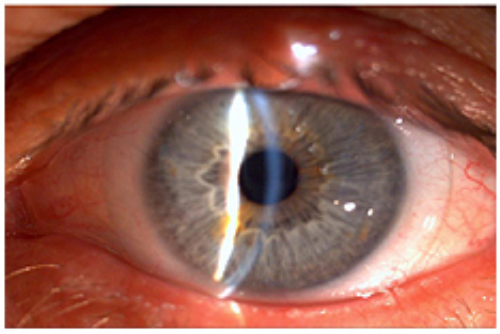
The Comfort SL scleral lens is a semi-sclera design. It is intended for non-distorted ametropia eyes. It incorporates a proprietary multiple posterior curve system to obtain corneal alignment. Patients who wear Comfort SL will have unsurpassed comfort and clarity throughout the day. When ordering, all 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

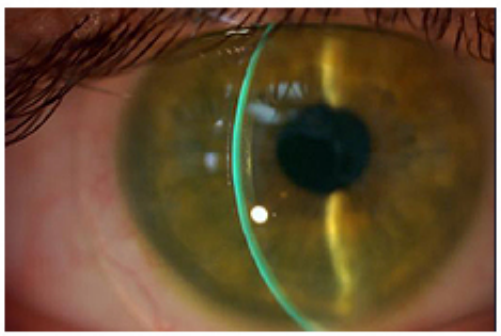
Lens diameter is designed by our consultants and is determined by corneal size. The most common diameter is 16.2mm.



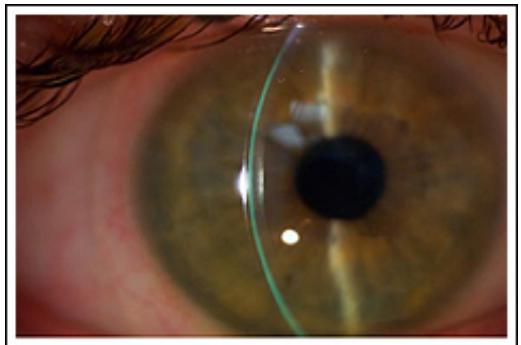
Proper Lens Diameter

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 100 microns clearance over the cornea.



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.

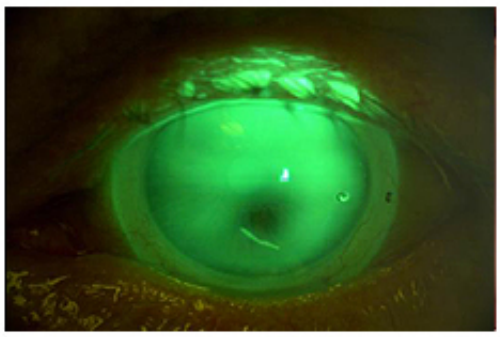
Center Thickness

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

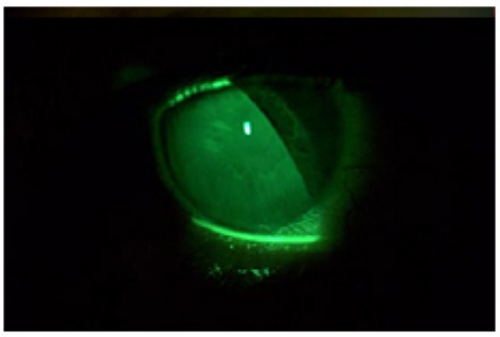
Fluorescein Pattern

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 100 microns. Contact your AccuLens consultant for assistance if proper alignment is not observed.



2 mm touch / 4.20 SAG



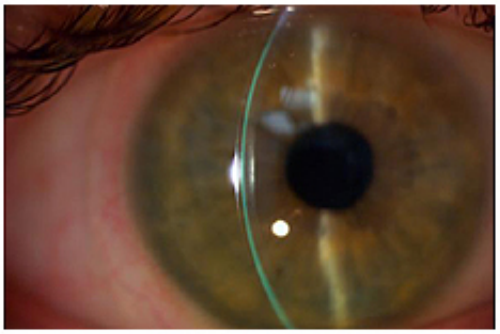
No Touch / 4.40 SAG

Edge

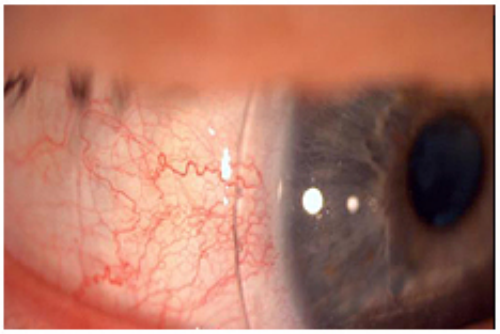
A proper edge should not lift off of the sclera or more importantly impinge into it. An edge that lifts excessive will cause lens awareness while an edge that impinges can cause edema, redness and discomfort. If the edge is not aligned with the sclera recheck to make sure that you have the ***SAG that 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 100 microns of clearance. 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.



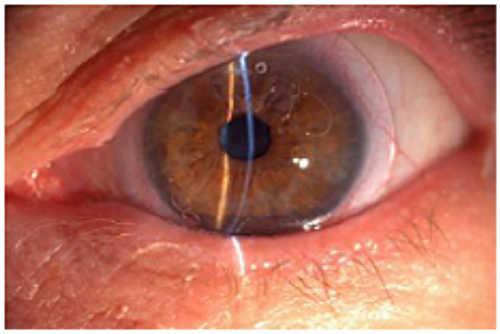
Ideal 100 Micron Clearance



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 (100 microns).*** 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	RESOLUTION
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	Metabolic debris
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 100 microns of clearance.
- Edge should not impinge or lift excessively off of the sclera.