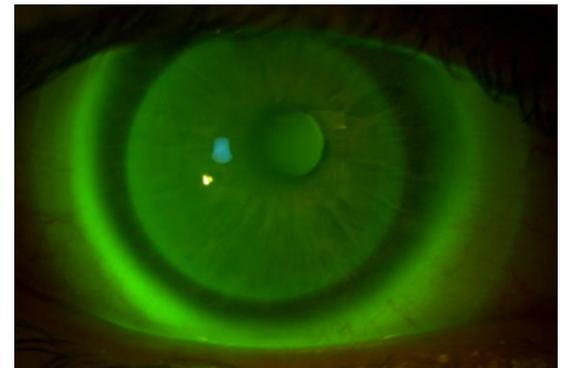


A Review of Contact Lenses from Application to Removal

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Co-chief of Contact Lens Services
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Course Objectives

- This course will include an overview of the design and fitting of soft, gas permeable, scleral, and hybrid contact lenses.
 - Lens selection
 - Application and Removal
 - Evaluation of the fit
 - Over-refracting techniques

Soft Lenses

- Materials
 - Hydrogel or Silicone Hydrogel
- Replacement Schedules
 - 1 month, 2 weeks, 1 week, 1 day
 - Less common: quarterly, annually

Soft Lens Fitting

- Lens Selection – Base Curve Radius (BCR)
 - Available in one to four base curves.
 - On average selected BCR is ~ 4D flatter than K
 - If three BCR:
 - Flat K is $> 45.00D$ Fit the Steeper BCR
 - Flat K is $41.00-45.00D$ Fit the median BCR
 - Flat K is $<41.00D$ Fit the flatter BCR
 - If only two BCR:
 - $<44.00D$ Fit flatter BCR

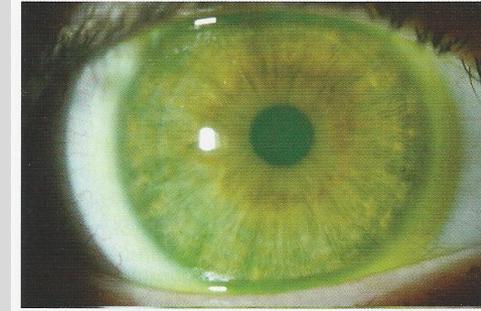
Soft Lens Fitting

- Power

- Determined by patient spectacle Rx which
- Vertexed back to the corneal plane if Rx is $> +/- 4.00D$
- Over Refraction of diagnostic Lens

- When spherical vs toric?
 - Cylinder less than 0.75D always select spherical lens
 - Cylinder more than 0.75D likely an astigmatic lens
 - Dependent on refractive power.
 - Example: -3.00 DS, trial lens power: -3.00
 - Example: -3.00-0.50 x 180 , trial lens power: -3.25
 - Example: -3.00-1.00 x 180 , astigmatic lens
 - Example: -4.25-0.50 x 180 , trial lens power: -4.25

Soft Lens Fitting



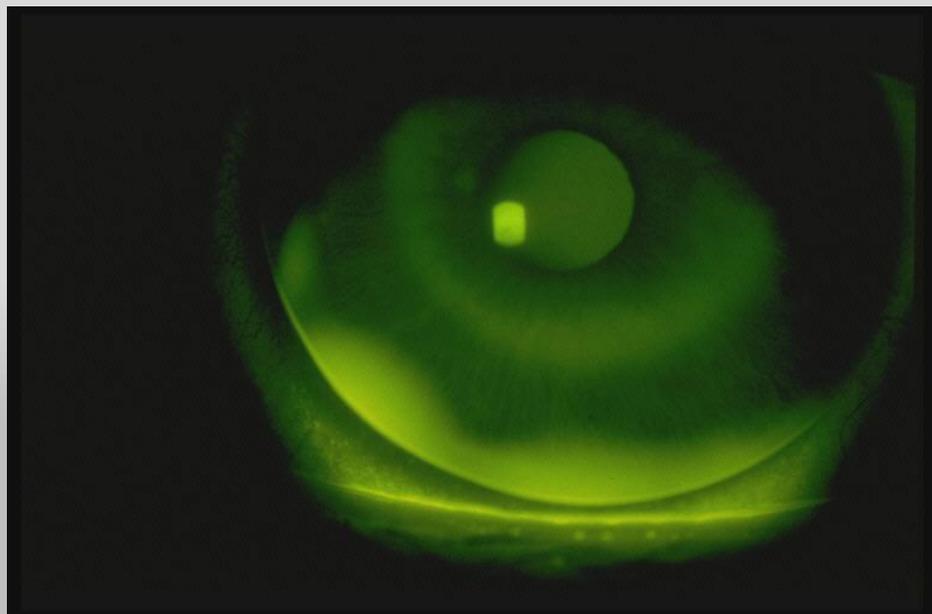
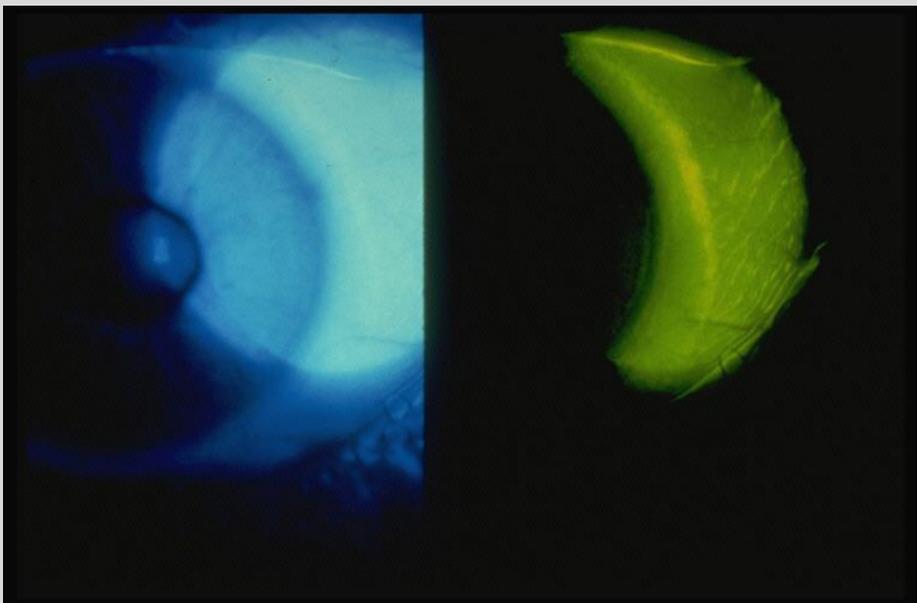
- EVALUATE FIT

- Centration: optics should be over the pupil
- Coverage: should extend .5 mm beyond limbus in all zones
- Movement: .5 – 0.1 mm with blink. Increases with up gaze. More expected with thicker lens
- Lens edge: no impingement or dragging of vessels. No edge lift off.

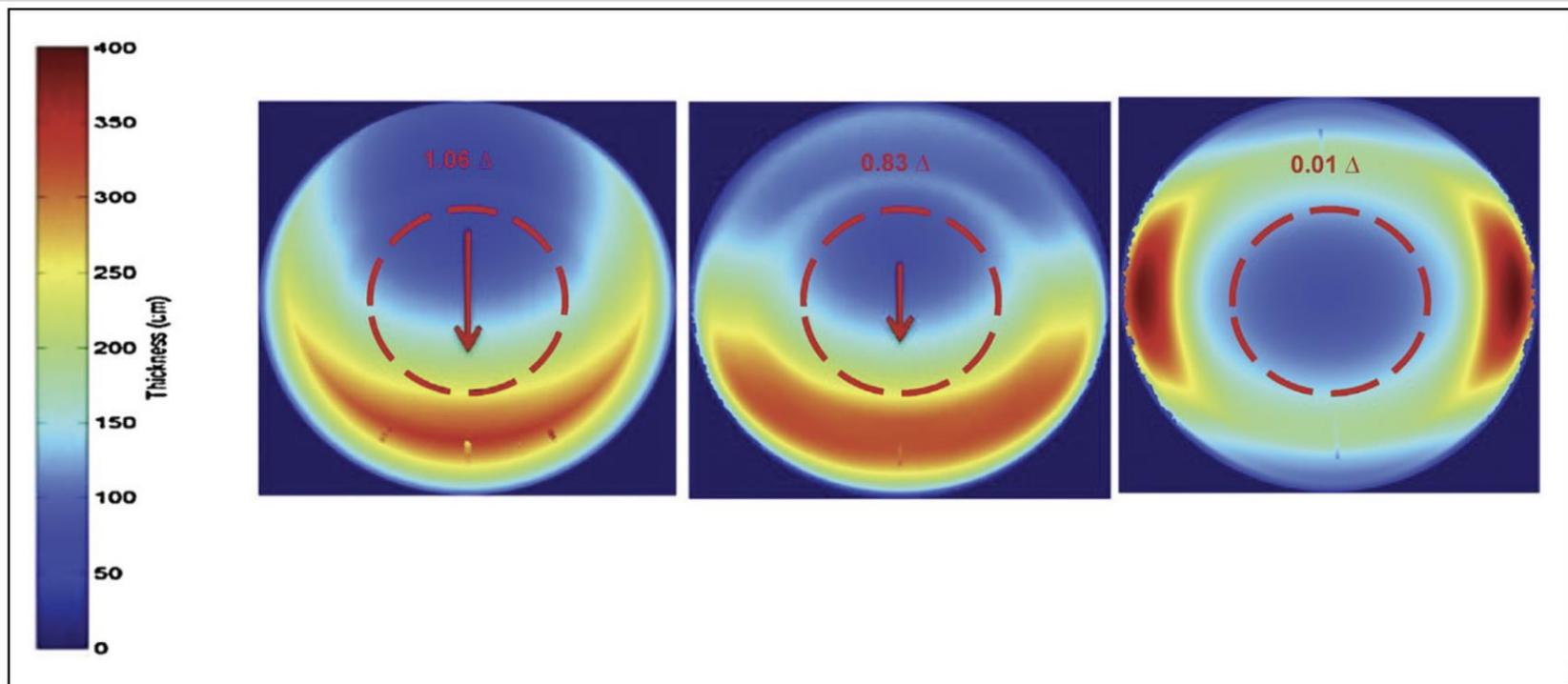
	good	tight	loose
Centration	Full, equal	Full, equal	Superior, decentered
Lens covers cornea	completely	completely	Nasal exposure
Acuity	Clear, stable	After blink clear, Blur = steep	after blink blur, clear = flat
Movement	0.50 – 1.0	less	more

Soft Lens Fitting

- Tight Lens: <0.5 mm movement with blink
 - Often producing conjunctival drag and may leave impression ring on sclera at position of lens edge
- Flat Lens: > 1.5 mm to 2 mm movement with blink
 - Often moving partially off the cornea, on straight gaze lens may be decentered inferiorly on cornea, on superior gaze lens will drop excessively inferior
- Properly fitting: 0.5 – 1.0 mm movement with blink
 - good centration over cornea, on superior gaze lens may move as much as 2mm
- Push- up test – used to judge if the lens is truly tight or just exhibiting minimal movement.

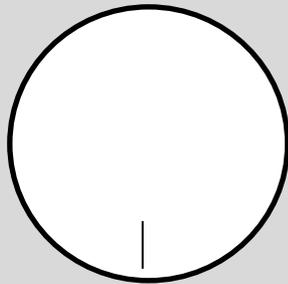


Soft Toric Fitting

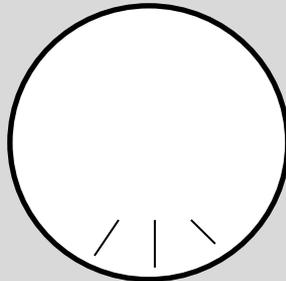


Thickening of lens zones in three various types of toric stabilization: prism-ballast (left), peri-ballast (center), thin zone (right). Sulley A, Hawke R, Lorenz KO, Toubouti Y, Olivares G. Resultant vertical prism in toric soft contact lenses. Cont Lens Anterior Eye. 2015;38(4):253-7.

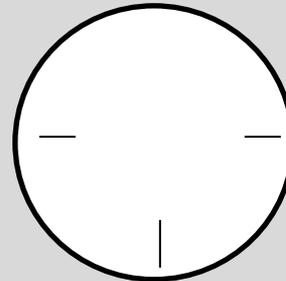
Common Soft Toric Lens Markings



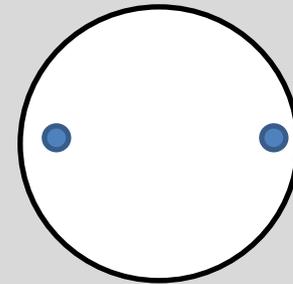
One line at 6
o'clock



3 lines at 5, 6, 7
o'clock
(30 degrees apart)



3 lines at 3, 6, 9
o'clock



2 dots at 3 and
9 o'clock

Toric marking refers to base of the lens, not cylinder axis of the lens

Soft Toric Initial Lens Selection

Diagnostic Sets

Minus and plus power lenses

Commonly available cylinder powers

-0.75D to -2.25D

example powers: -0.75D, -1.25D, -1.75D, -2.25D

Commonly available cylinder axis

0-180 in 10-degree steps

Diameter: typically larger than standard soft lens for improved lens stability; ~14.5mm

Soft Toric Initial Lens Selection

Match the **cylinder power** to the manifest refraction cylinder power

Vertex if necessary (spherical &/or cylindrical power $\geq 4.00D$)

If between two values, always select the **lower power**

Match the **cylinder axis** to the manifest refraction axis.

If manifest refraction axis is between available axis – select the axis that is closer to the **principal meridians of 180 and 90**

Example: patient Rx axis 075; select a lens with axis 080

Example MR: -2.50 -1.00 x 175

diagnostic lens: -2.50 -0.75 x 180

Soft Toric Initial Lens Selection

Example Manifest Refraction: -2.50 -1.00 x 175

Diagnostic Lens Options:

Cylinder Power Options: -0.75D, -1.25D, -1.75D, and -2.25D

Axis Options: 0-180, in 10-degree steps; 010, 020, 030, etc

diagnostic lens: -2.50 -0.75 x 180

Soft Toric Initial Lens Selection

- Vertex both meridians $\geq \pm 4D$
- Check Parameter Availability
- Can insert with laser markings in correct location
- If the Rx you need is not available, then order correct lens
- If exact cylinder power is not available, select a diagnostic lens with a LOWER cylinder power

Vertex

Rx $-4.00 -1.75 \times 180$

POWER CROSS



Converts to $-4.00 @ 180$ to $-3.75 @ 180$
 $-5.75 @ 090$ to $-5.25 @ 090$

$-3.75 -1.50 \times 180$

vertexed trial lens power **$-3.75 -1.25 \times 180$**

Initial Soft Toric Lens Selection

Diagnostic Lens Options:

Cylinder Power Options: -0.75D, -1.25D, -1.75D, and -2.25D

Axis Options: 0-180, in 10 degree steps; 010, 020, 030, etc

- EXAMPLE:

- Rx: -5.00 – 1.00 x 165

- Vertex (-4.75-0.75 x 165)

- Select lens closer to principal meridian



Trial lens: -4.75 -0.75 x 170

- EXAMPLE:

- Rx: -5.00 -1.00 x 075

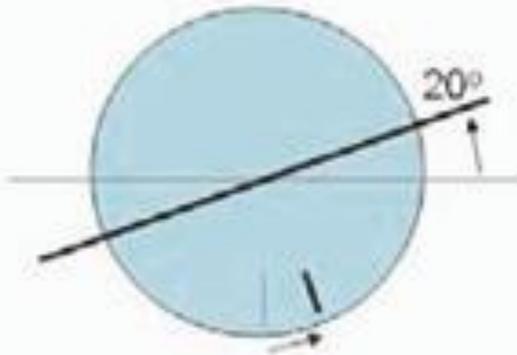
Trial lens: -4.75 -0.75 x 080

Soft Toric Fitting

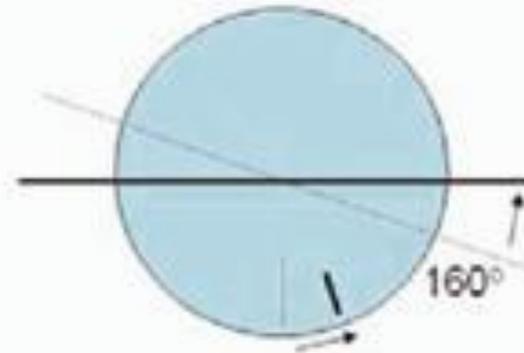
- Allow lens to settle 10 minutes
- Evaluate fit same as soft spherical
- Evaluate location of base marking on lens
 - Clock dial guesstimate – 1 hour = \sim 30 degrees rotation
- Compensate for lens base rotation if VA is compromised:
- LARS –Left Add Right Subtract
 - Based on practitioner viewpoint
 - Based on base of lens
 - Make changes from spectacle axis
 - After compensation, want new lens to rotate the same way

Soft Toric fitting

LARS = Left Add - Right Subtract



Patient's refraction = $-3.00 -1.75 \times 180$
Original lens power = $-3.00 -1.75 \times 180$
With 20° rotation to the **right** after settling,
power now = $-3.00 -1.75 \times 020$

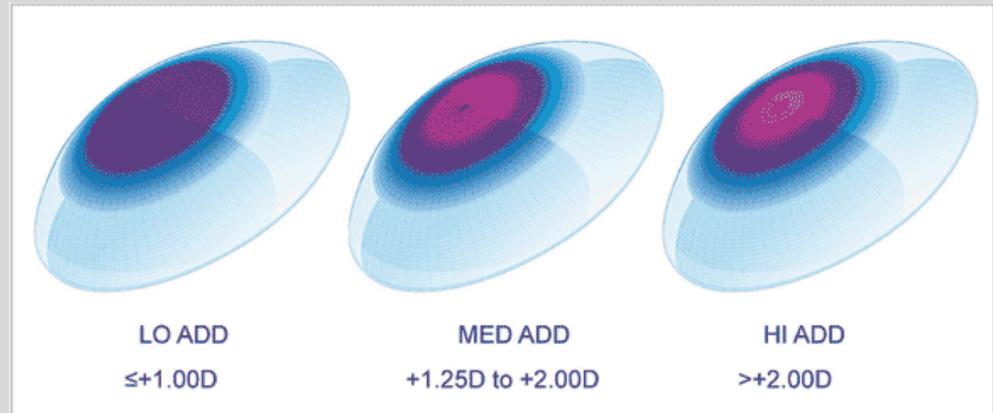
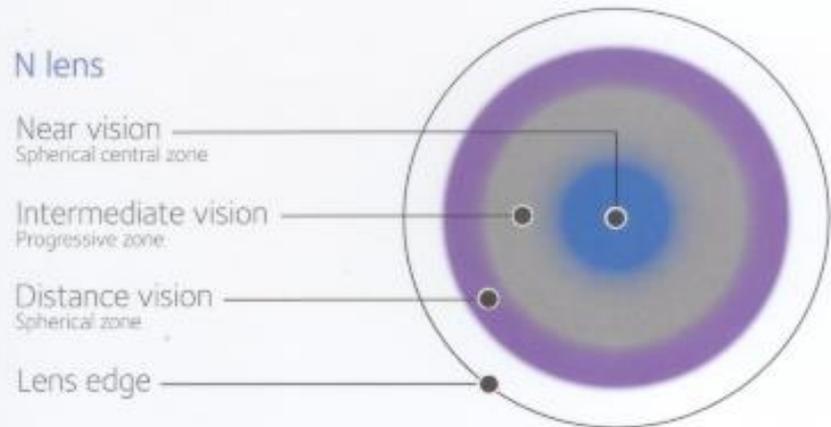
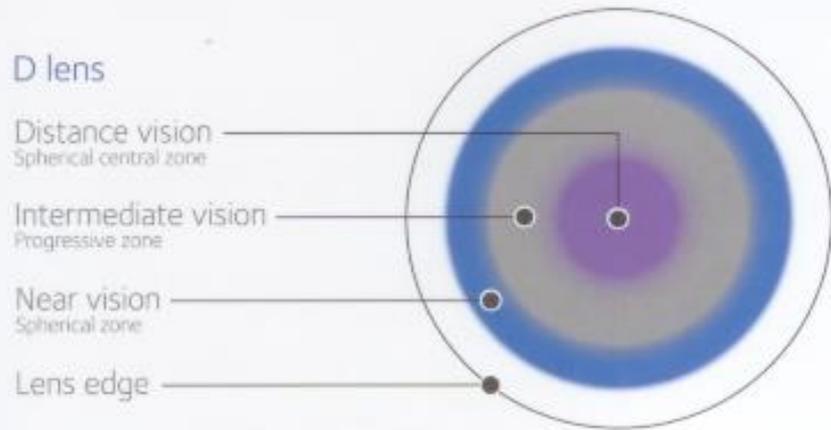


New lens power with adjusted axis
= $-3.00 -1.75 \times 160$
Axis orientation after 20° rotation to the **right**
Power now = $-3.00 -1.75 \times 180$

Soft Multifocal Fitting

- Patient Education and Motivation
- Preliminary evaluation
- Good Candidates:
 - Single Vision Soft lens Wearers
 - Dissatisfied Monovision Patients
 - Patients with low amounts of astigmatism or fit in multifocal toric
- Lens Designs
 - Center Near
 - Aspheric with a center near correction
 - Center Distance
 - Soft Toric Multifocal

Soft Multifocal Fitting

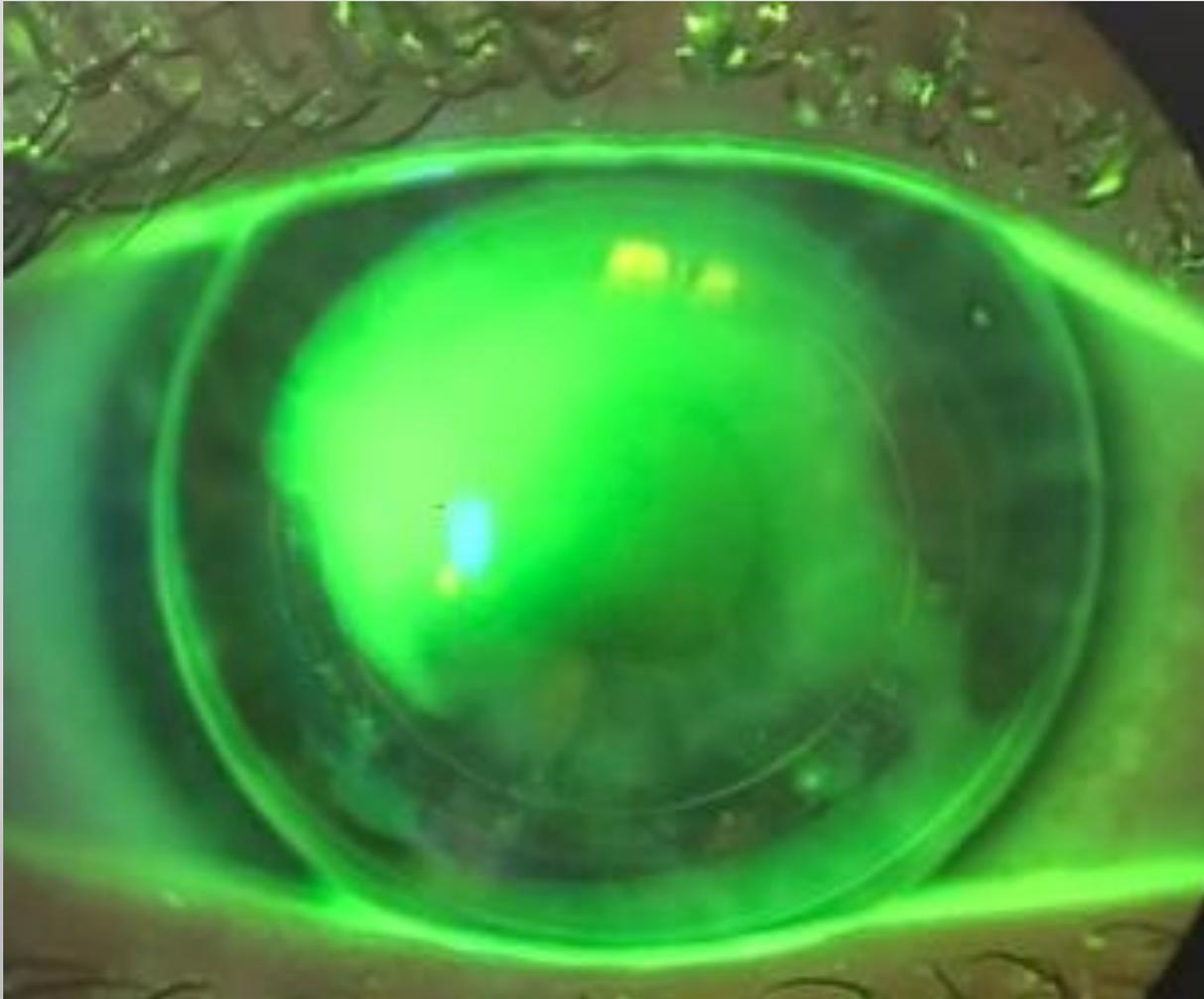


The Air Optix Multifocal Aqua has a three-add system in order to accommodate the different degrees of presbyopia.

Soft Multifocal Fitting

- Fitting Guide to determine initial lens selection
 - Allow lenses to settle for 10-20 minutes
- Fitting assessment same as soft spherical lens
- Visual Acuities measured binocularly in normal room illumination
 - Use everyday reading materials for near visual assessment
- Over-refraction performed with loose lenses
 - Monocularly with both eyes open

GP lens fitting



Contact Lens Materials/Design

Gas Permeable Materials

- Low-Dk is lens of choice for daily wear myopic patients
- High-Dk is lens of choice for hyperopes and some CW patient
- Hyper-Dk is lens of choice for Extended wear and 30-day continuous wear

Gas Permeable Material Selection (In General)

Low Dk	High Dk	Hyper Dk
Myopia	Hyperopia	Hyperopia
Daily wear	Flexible wear	Extended wear
Optimum wettability	Extended Wear	
Optimum stability	Prism ballasted lens designs	

GP Lens fitting

- Current Rx and Keratometry
- Base Curve Radius
 - Selected to optimize the lens-to-cornea fitting relationship
 - Initially determined from amount of corneal cylinder

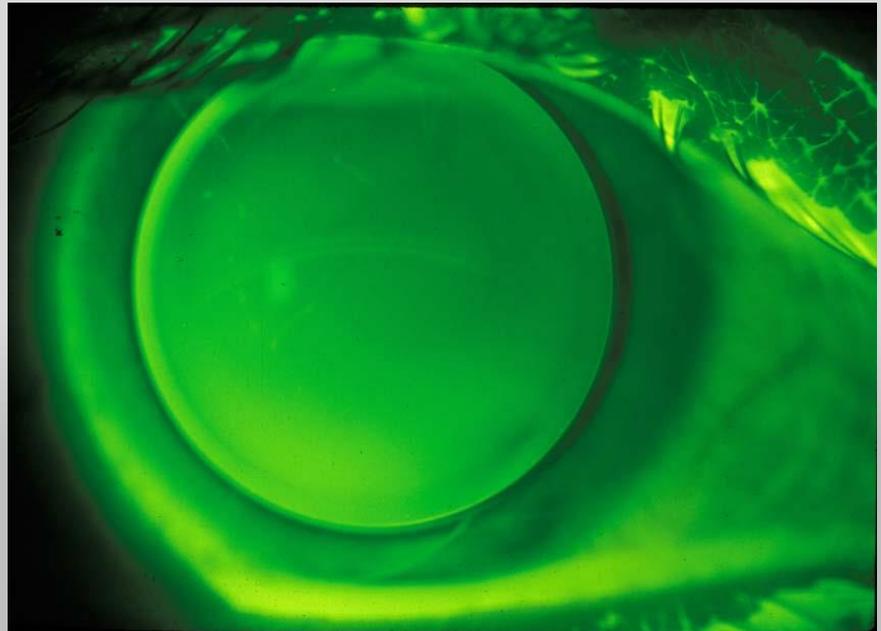
Corneal Cylinder	Base Curve (Minus Lenses)
Plano – 0.5D	0.50 – 0.75D Flat
0.75 – 1.00D	0.25 – 0.50D Flat
1.25 – 1.50D	On K – 0.25D Flat
1.75 – 2.00D	0.25D Steep
2.25 – 2.50D	0.50D Steep
2.75 – 3.00D	0.50 – 0.75D Steep

- **For plus lenses fit 0.25 – 0.50D steeper than those recommended for minus lenses

GP Lens fitting

- Evaluation of fit:
 - Instill NaFl, using strip and saline
 - Use wratten filter
 - Assess lens position and movement, 1-3mm ideally
 - Assess peripheral clearance

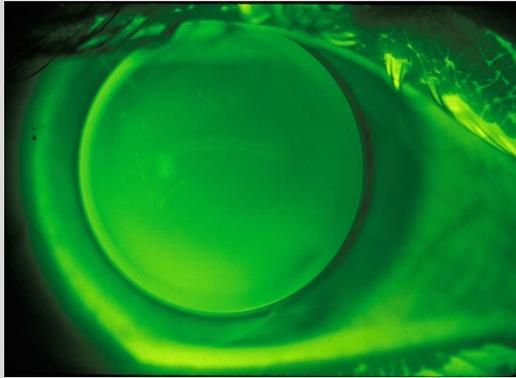
- Alignment fit



GP Lens Fitting

- Fit Evaluation:
- Too Steep
 - No movement, excessive vaulting in the center and no tear exchange peripherally
- Too Flat
 - Excessive movement and touch in the center
 - Bubbles and excessive edge clearance peripherally
- With the rule corneal astigmatism
 - Classic bow tie pattern with dark band (less NaFL pooling) in the horizontal meridian
- Against the rule corneal astigmatism
 - Reverse pattern with vertical dark band

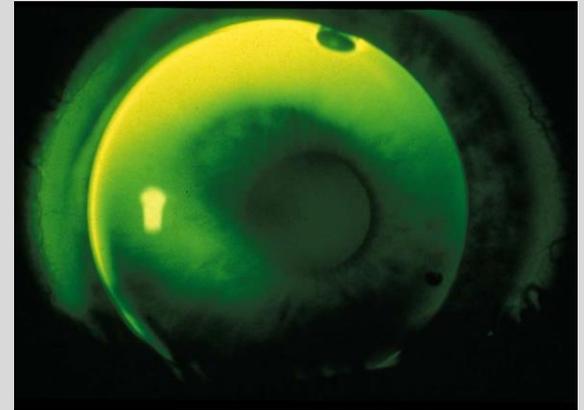
Gas Permeable fitting



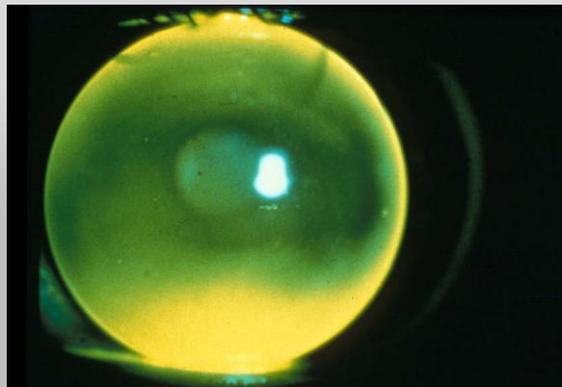
Alignment Fit



Steep Fit,
Apical Clearance

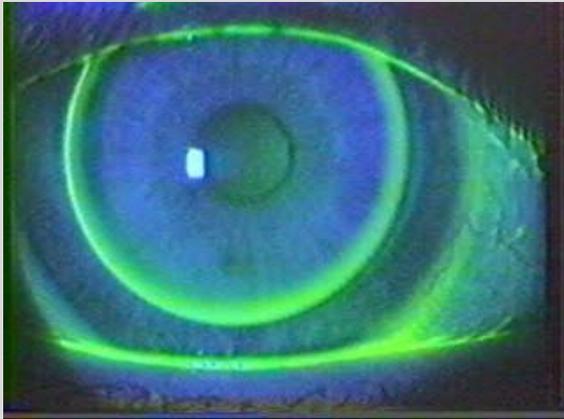


Flat Fit
Apical Touch

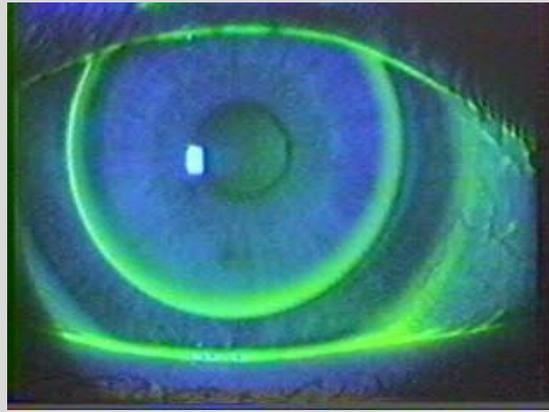


Astigmatic Cornea
With a spherical GP lens

Gas Permeable fitting

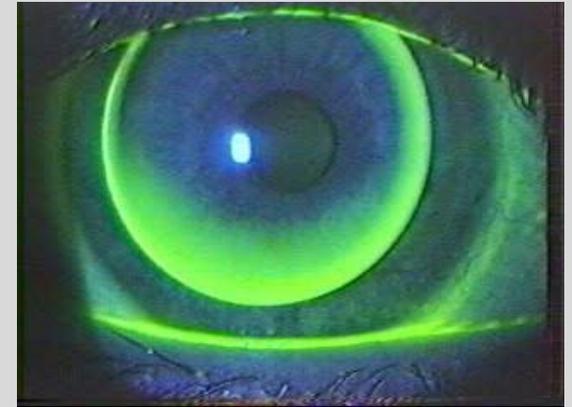


On K

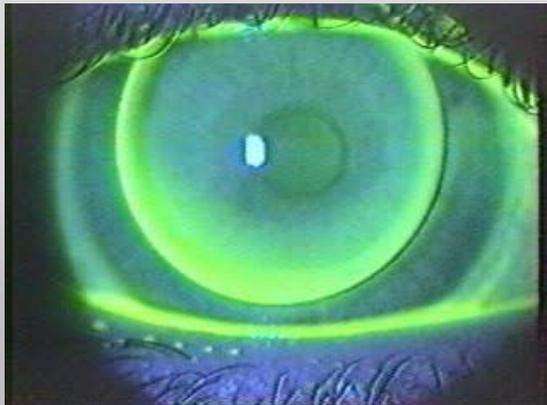


.50D

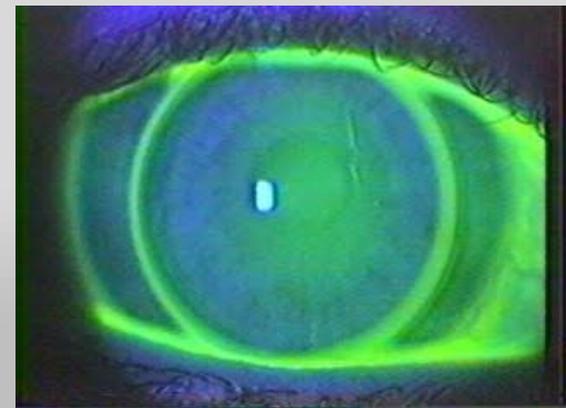
Flat/Alignment



1.00 Flat

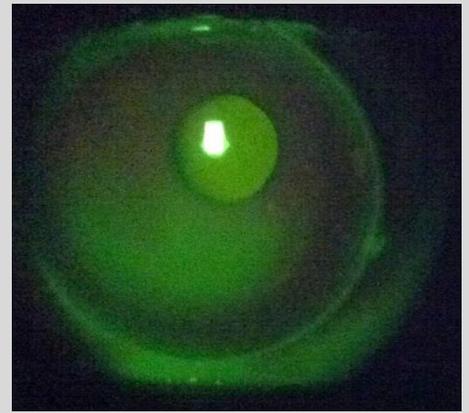


1.50D Flat



1.00D Steep

GP Lens Fitting



Bitoric Fitting

- Ideal for highly toric corneas ≥ 2.50 D and high astigmats with strong vision requirements
- Should improve comfort and centration vs spherical
- Should look like a spherical lens on a spherical eye
- Can be fit empirically or from a fitting set

GP Lens Fitting

A simple way to fit bitoric lenses empirically...

1. Keratometry	<input type="text"/> @	<input type="text"/> @		
2. Spectacle Rx (Minus Cyl Form)	<input type="text"/> x			
	Flattest K	Sphere Power	Steepest K	Sph+Cyl Power
3. Enter K	<input type="text"/>		<input type="text"/>	
4. Enter Spectacle Power		<input type="text"/>		<input type="text"/>
5. Vertex Adjust Line 4		<input type="text"/>		<input type="text"/>
6. Insert Fit Factor	(-) <input type="text"/>	(+) <input type="text"/>	(-) <input type="text"/>	(+) <input type="text"/>
Add Lines	3&6	5&6	3&6	5&6
7. Final CL Rx	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Base Curve	Power	Base Curve	Power

Corneal Cyl	Fit Flat Meridian	Fit Steep Meridian
2.0 Diopters	On K (0 D)	0.50D Flatter
2.5 Diopters	0.25D Flatter	0.50D Flatter
3.0 Diopters	0.25D Flatter	0.75D Flatter
3.5 Diopters	0.25D Flatter	0.75D Flatter
4.0 Diopters	0.25D Flatter	0.75D Flatter
5.0 Diopters	0.25D Flatter	0.75D Flatter

gpli.info/education/mandell.htm

- On line 1 and 2 enter the patient Keratometry readings and Spectacle Rx respectively.
- On line 3 enter the flattest K in the box on the left side and the steepest K in the box on the right.
- On line 4 enter the sphere power in the box on the left and the sphere power plus the cylinder power in the box on the right.
- If the powers noted in line 4 are greater than or equal to +/- 4.00 D an adjustment for vertex distance is entered in line 5. Vertex adjusted powers are used to complete the remaining calculations.
- Use the Fit Factor Chart above for the values needed to be entered into line 6. The amount of corneal cyl will determine the Fit Factor for the flat and steep meridians. "On K" has a 0 Fit Factor.
- Add/Subtract the lines as noted and enter the results in line 7. These are the actual numbers that you will give the lab to manufacture your bitoric lens. They are referred to as drum value.

Mandell- Moore Guide

GP Multifocal Fitting

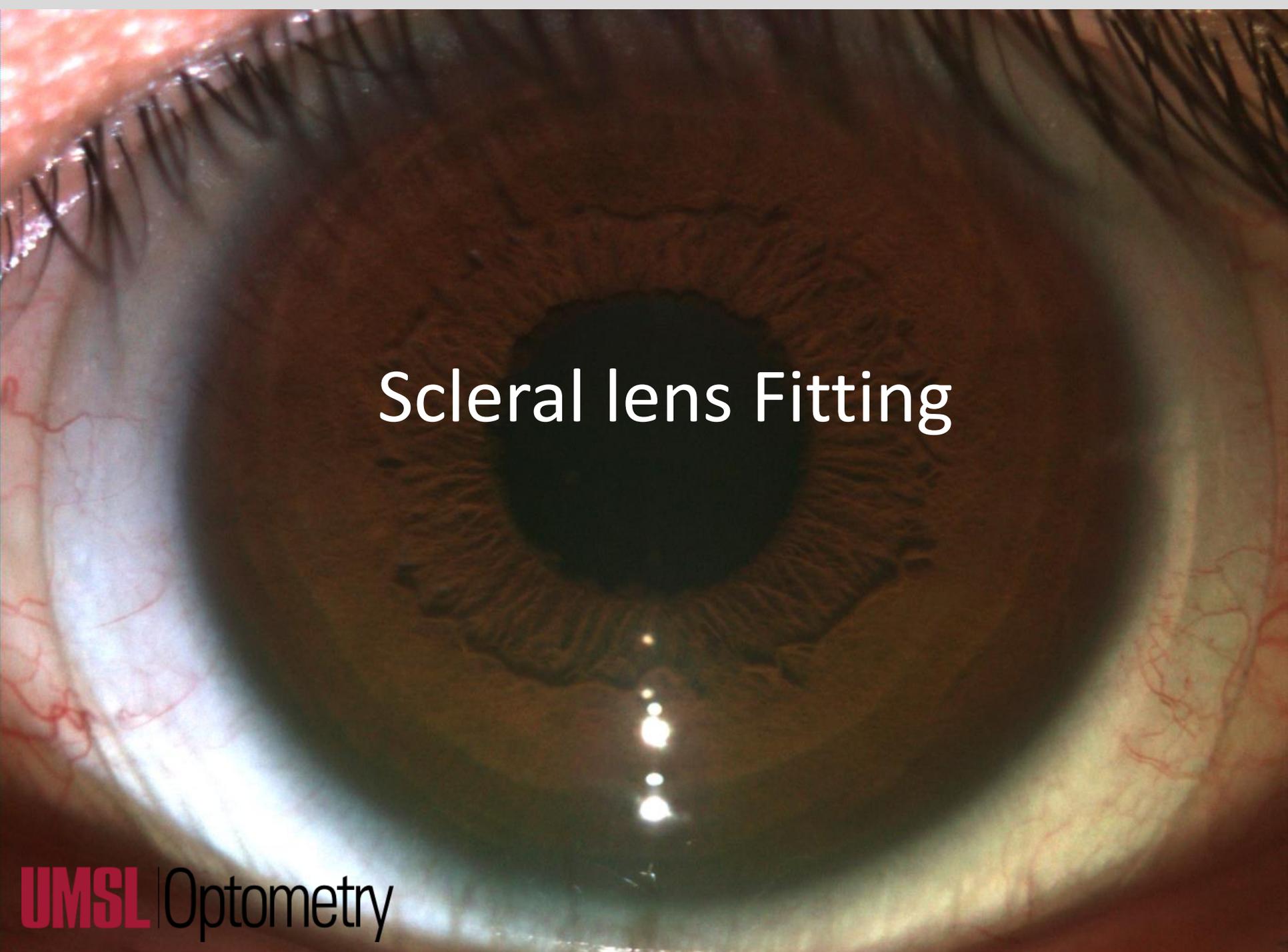
- Design Types

- Aspheric Multifocal

- Thin lens designs, fit steeper than K, to optimize centration with little movement.
 - Best candidates are early or moderate presbyopes

- Translating Bifocals

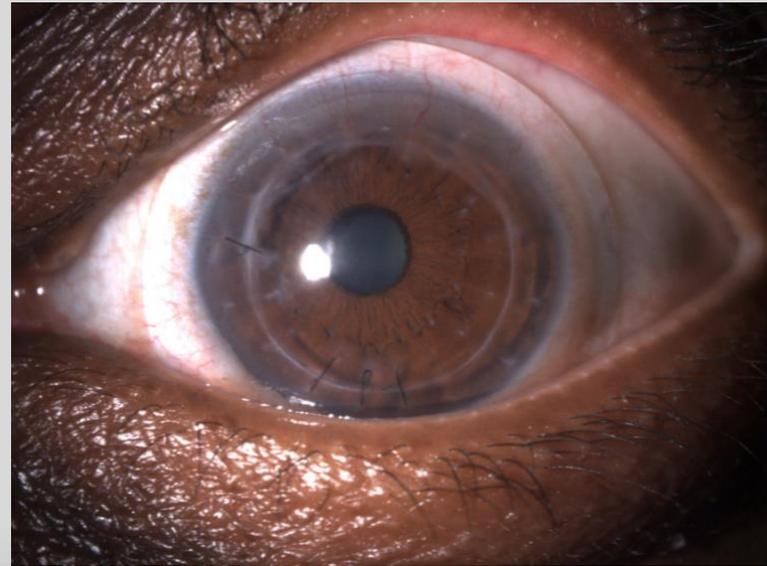
- Prism-ballasted and sometimes truncated
 - Utilize the lower lid to push the lens superior when eyes move downward to view near material.
 - Patient should have lower lid within 1 mm of lower limbus
 - Lid tension should be moderate to tight

A close-up photograph of a human eye. A large, clear, circular scleral lens is fitted over the cornea. The lens is held in place by a thin, clear adhesive ring. The iris is visible through the center of the lens, and the pupil is visible through the center of the iris. The sclera is visible around the lens, and the eyelashes are visible at the top and bottom edges of the eye. The text "Scleral lens Fitting" is overlaid in white on the center of the eye.

Scleral lens Fitting

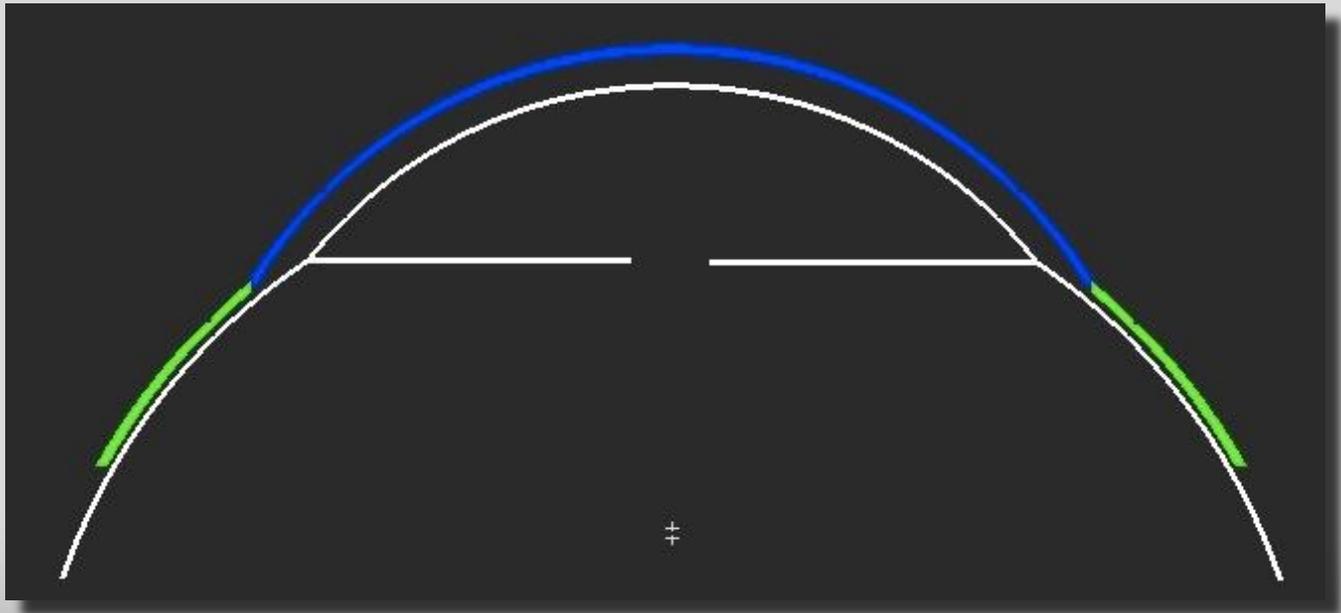
Scleral lens fitting

- Large diameter lens
- Gas Permeable Material
- Vaults the cornea
- Lands on the sclera
- Can used for normal or an irregular cornea



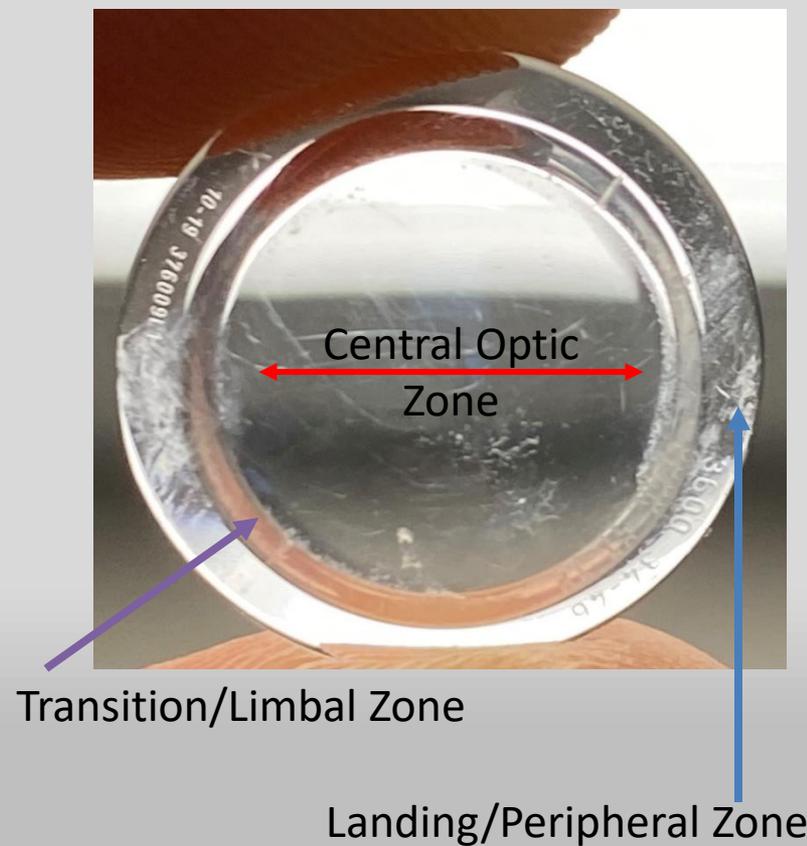
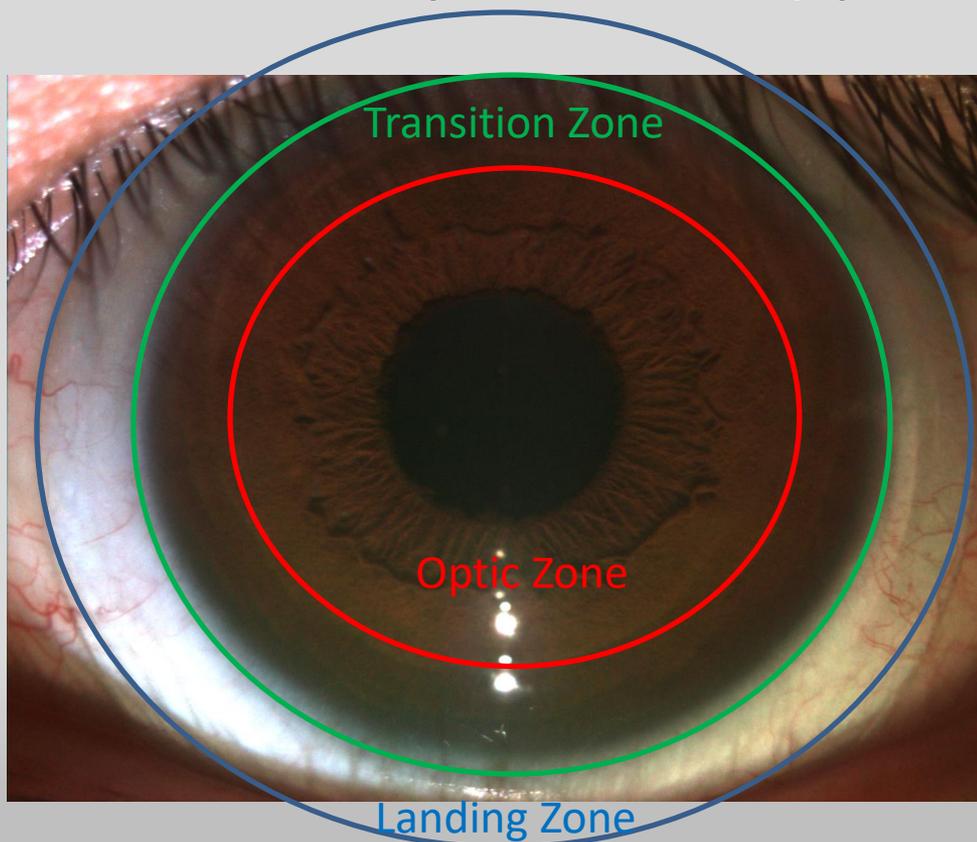
Fitting Basics-Diagnostic

- Completely vault the *cornea* and *limbus* while aligning to the *bulbar conjunctiva*



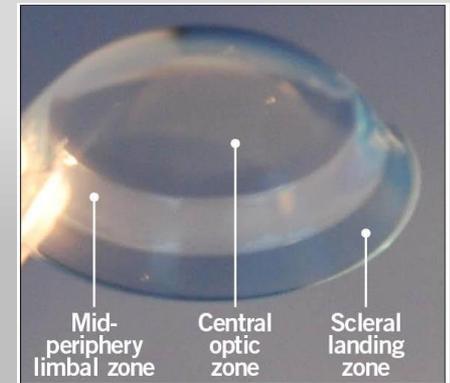
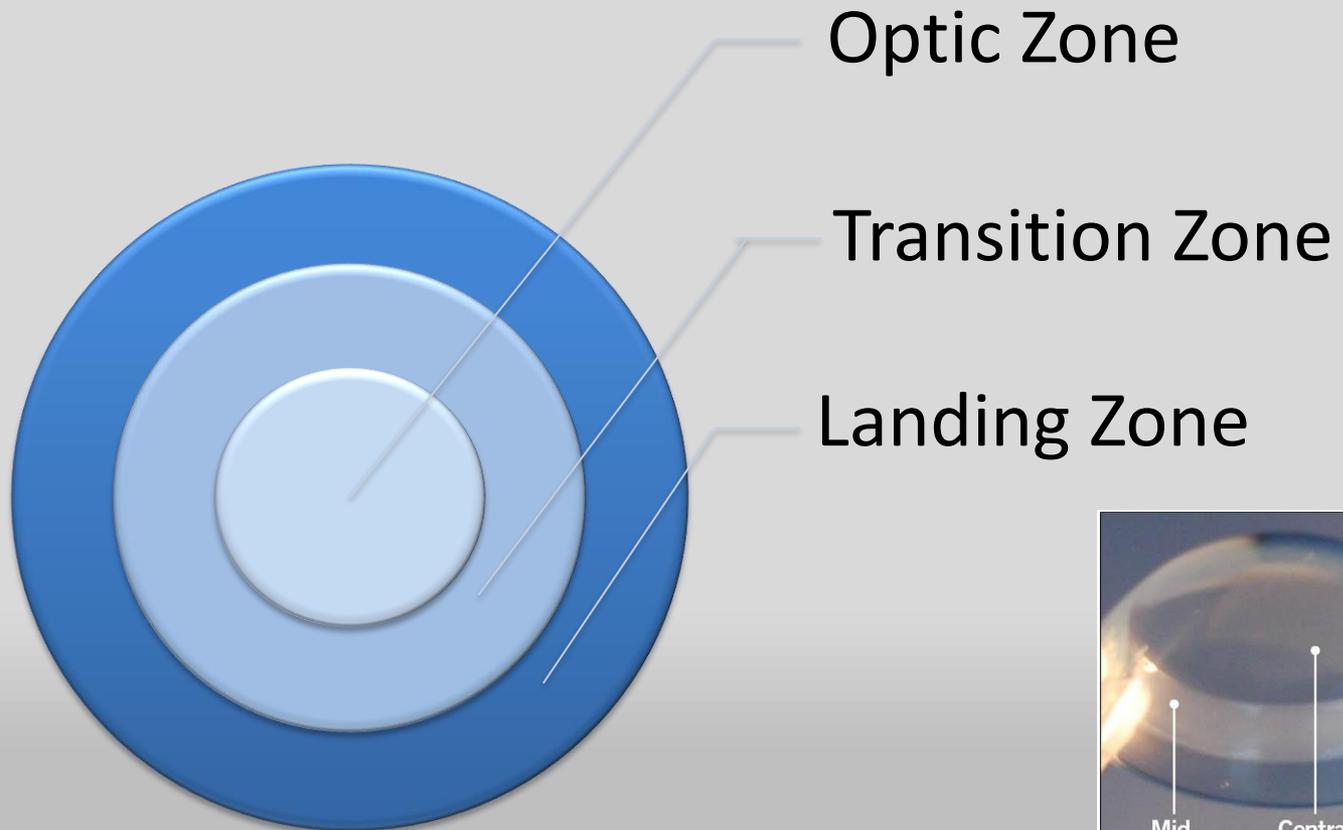
Scleral lens fitting

- Concentric symmetrical (spherical) scleral lens



Scleral lens fitting

- Concentric symmetrical (spherical) scleral lens



Scleral lens fitting



Optic Zone

- Centermost Zone
- Optics/Lens Power
 - Anterior Surface
- Ideally mimics corneal shape
 - Prolate/Oblate
- Completely vaults cornea

Scleral lens fitting



Transition Zone

- Mid-periphery or limbal zone
- Creates the sagittal height
- Can be reserve geometry
- Completely vaults limbus
- Innermost peripheral curves

Scleral lens fitting

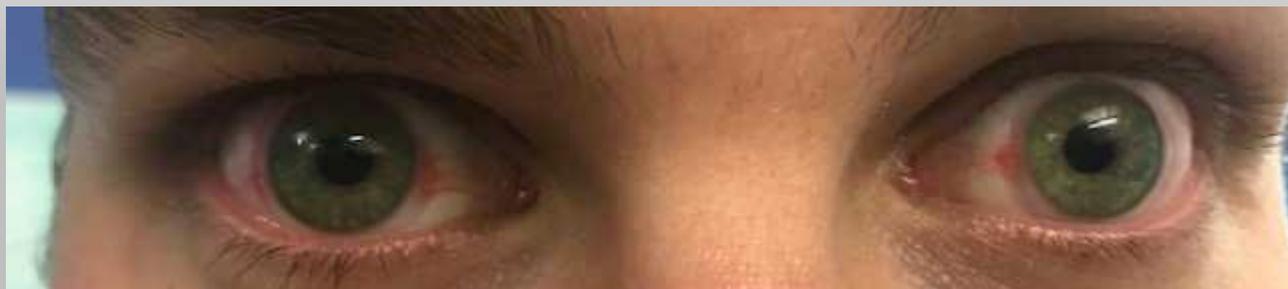


Landing Zone

- Area of the lens that rests on anterior ocular surface
- Scleral zone or haptic
- Alignment to provide even pressure distribution is key
- Outermost peripheral curves

Scleral lens fitting

- Back Toric Haptics
 - Landing zone is made toric to improve lens fit
 - Does not interfere with central zone of scleral lens
 - Better ocular health
 - Fewer areas of localized pressure
 - Decreased bubble formation
 - Longer wearing time and better patient comfort
 - More frequently needed in larger diameter sclerals



Scleral lens fitting

- Back Toric Haptics

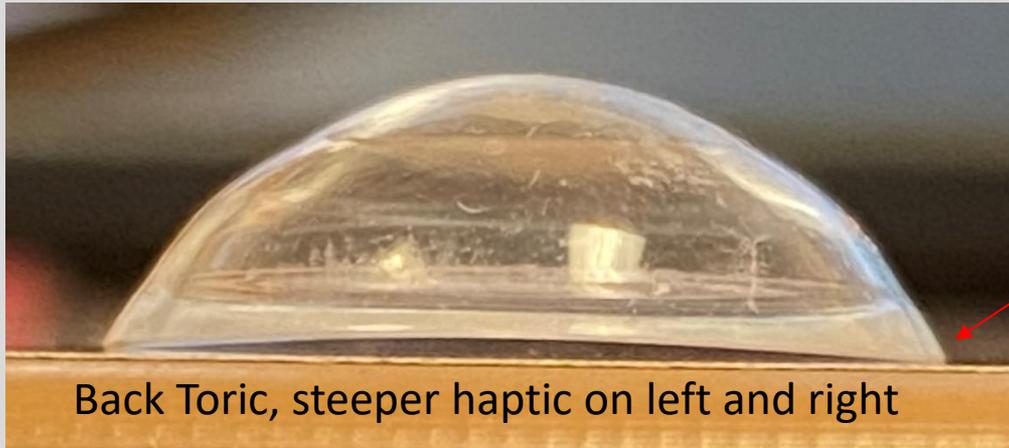
- Landing zone will have two base curve values
- Markings on periphery of lens designate the FLATTER meridian
- For lens stabilization, usually need 100 to 150 micron difference between the two meridians.

examples: angle: 34-46 (34 = flatter meridian)

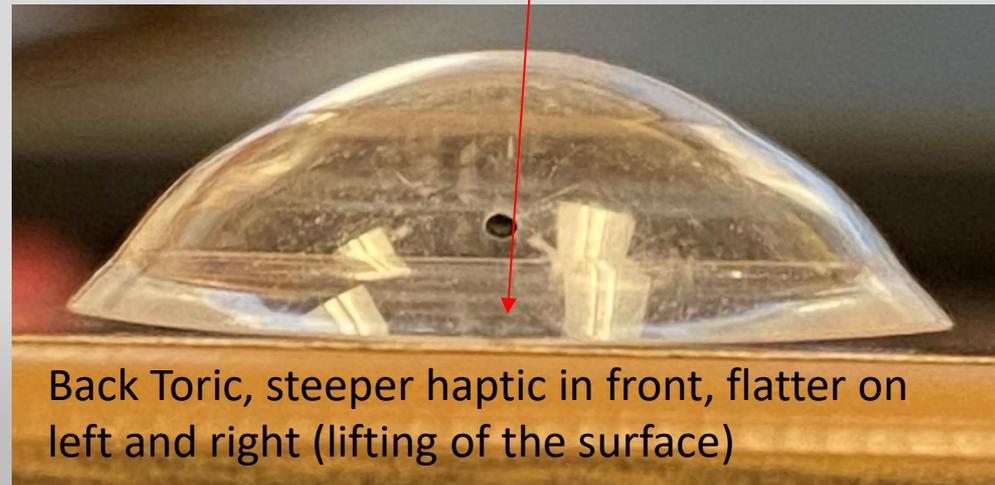
microns: +3/-4 (+ = flatter)

mm: 11.25 / 10.00

Scleral lens fitting



Steeper Haptic



Scleral lens fitting

FITTING GOALS:

- Corneal Clearance: 250 microns or less
- Centration: Well-centered
- Movement: NONE
- Periphery:
 - Slight hug into the conjunctiva
 - Alignment 360 degrees
- Comfort: Patient should NOT feel lens when on-eye

Scleral lens fitting

- 1. Diameter
- 2. Clearance
- 3. Landing Zone Fit
- 4. Lens Edge
- 5. Asymmetrical Back Surface Design
 - Some trial sets are toric back surface
- 6. Lens Power



Scleral lens fitting

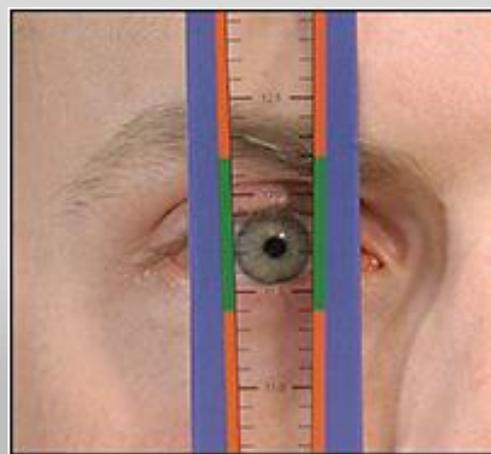
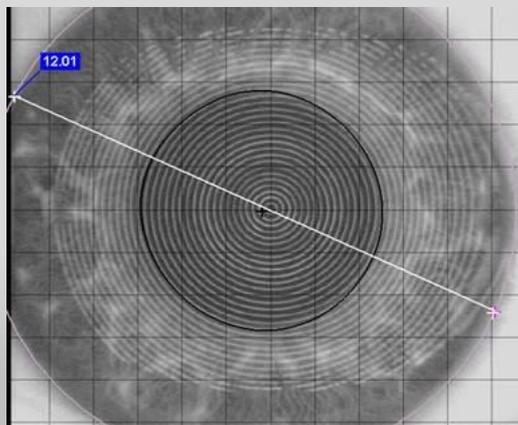
Step 1: Lens Diameter

- HVID
- <12mm
 - select **16.0 mm or smaller** lens
- >12mm
 - Select a **16.0 mm or larger** lens



Considerations:

- Small palpebral fissure
- Low corneal sagittal height
- Difficulty with large lens application
- Conjunctival irregularities



Scleral lens fitting

Step 2: Lens Design

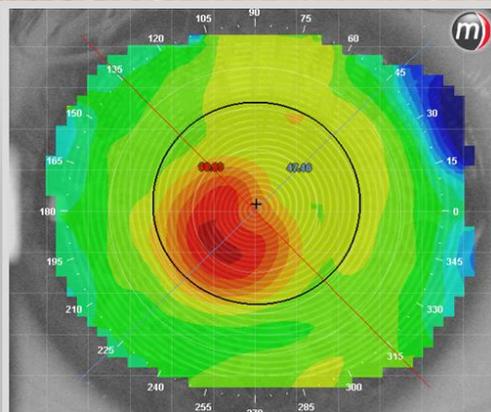
- Oblate
- Prolate



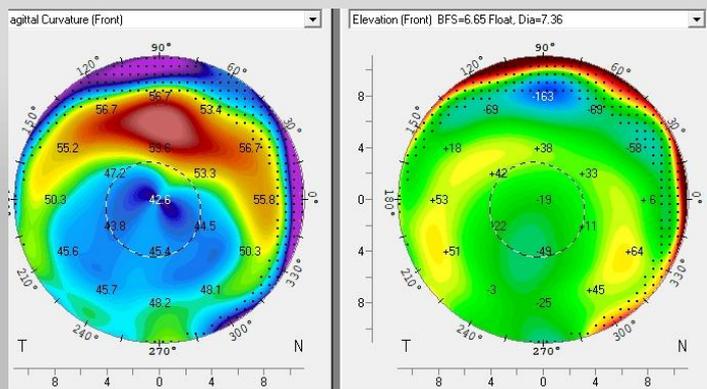
Step 3: Landing zone

- Spherical
- Toric (always first choice!)

Prolate



Oblate



Scleral lens fitting

Step 4: Base Curve Determination

1. Manufacturer guidelines for the selected lens design

2. Select an initial base curve that is flatter than the flat k value

3. Anterior OCT

- Use 15 mm chord OCT to measure sagittal depth
- Add desired central clearance to sagittal depth for initial lens selection
- Increase measured sagittal depth 400 microns for each 1mm increase in lens diameter

Scleral lens fitting

Select Your Starting Lens

STEP 1

5

Use HVID, K readings, and/or sagittal height of the cornea to determine initial lens selection.

HVID

If HVID is 11.5 or less, start with the 14.8 diameter.

If HVID is 11.6 or greater, start with the 15.8 diameter.

If HVID is greater than 12.5, or sagittal need is high, use the 16.8 or 17.8

Sagittal Height

If using anterior segment OCT, use the 15 mm chord sagittal height of the cornea, then adjust according to which lens you are using:

14.8 – add 250 μm

15.8 – add 550 μm

16.8 – add 850 μm

17.8 – add 1100 μm

K Readings

K reading can also accurately determine the starting lens. Flatter K readings generally need less sagittal height, while steeper K's need more height. Use the following formulas to get started.

14.8 – Convert the flat K to microns. For example: 41.50 flat K, converts to a 4150 sagittal height. Then subtract 400 μm . Use this value as your starting sagittal depth.

15.8 – Convert the flat K to microns and start with the closest available sagittal depth.

16.8 – Take flat k, and add 350 microns.

17.8 – Take flat k, and add 650 microns.

Scleral lens fitting

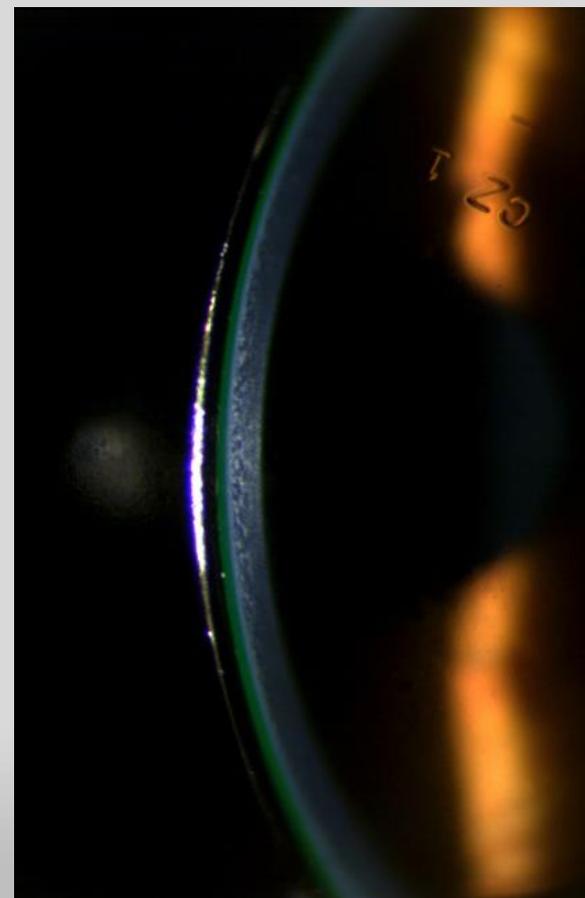
After
application:

Best to allow the
lens to settle
on the eye for
~20 minutes

Check
Clearance

Minimum of
~100 microns

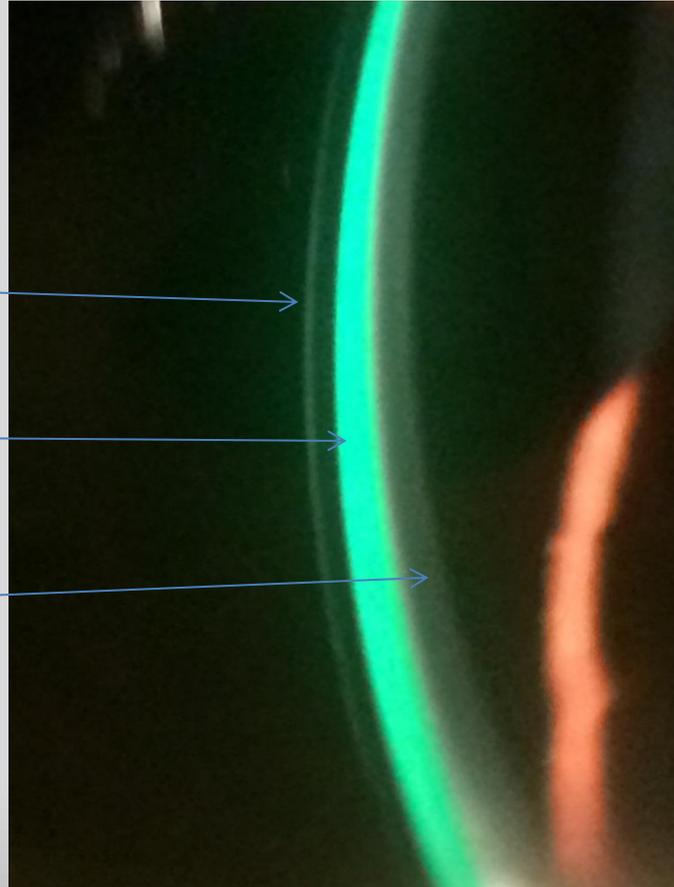
GOAL:
200-300 microns
after settling



Scleral lens fitting

Estimate Corneal Clearance

Lens →
Tear Lens →
Cornea →



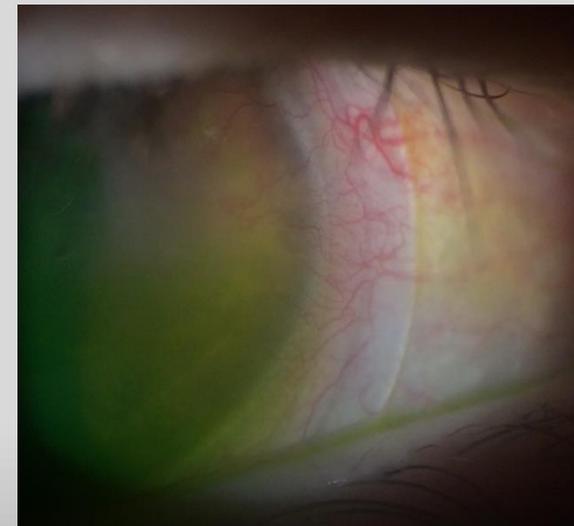
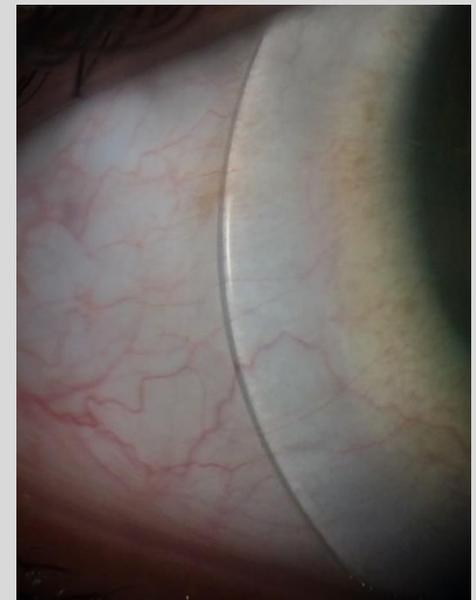
Scleral lens fitting

- Evaluate the remaining corneal chamber
 - Optic Section
 - Sweep limbus to limbus noting tear lens thickness
 - Looking for tears in optic section beyond the limbus and should increase in thickness toward the central cornea

*** Adequate limbal clearance is critical for an acceptable fit and good tear exchange***

Scleral lens fitting

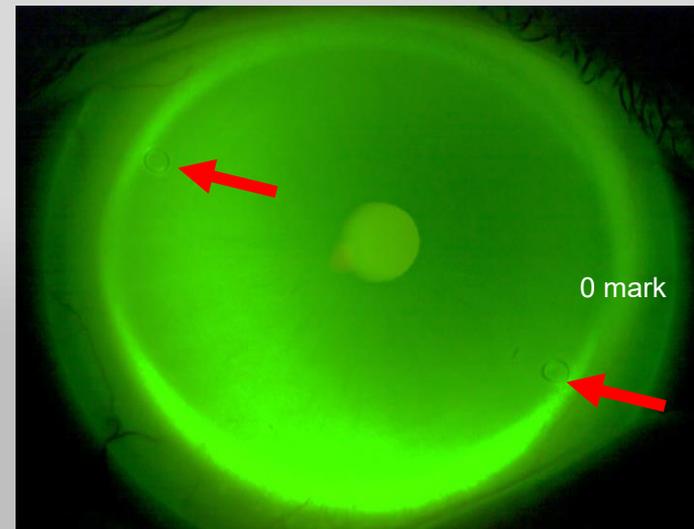
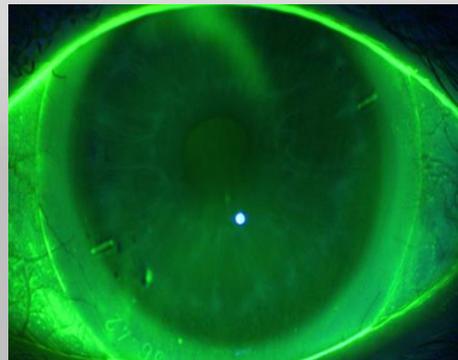
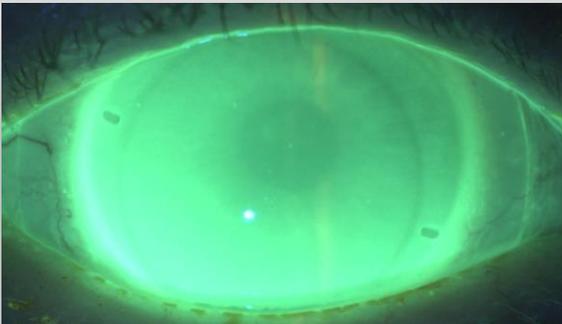
- 3/4. Landing Zone Fit/Edge
 - Bulbar conjunctival vessels
 - Look for blanching
 - *Inappropriate scleral curve alignment*
 - *Typically indicates PC is too tight*
 - *Or new toric back surface haptics*
 - Confirm no lens movement
 - Perform all peripheral lens evaluations in Primary Gaze.



- Ideal alignment when vessels course unobstructed under the scleral curves

Scleral lens fitting

- 5. Asymmetric/Toric Back Surface Design
 - Allows for more equal pressure distribution
 - Can help center a inferiorly decentered lens
 - Flat and steep meridian
 - Can adjust either independently
 - Flat meridian is typically marked
 - Lens will lock into place



Sccleral lens fitting

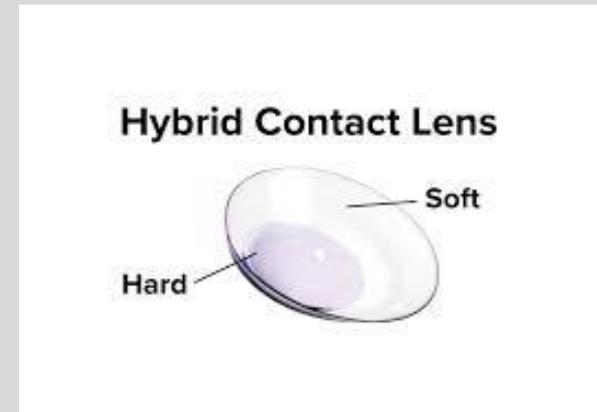
- 6. Lens Power/Over-Refractiion
 - Expect close to spherical OR
 - If OR yields significant cylinder check - flexure
 - Do over-keratometry or over-topography
 - Residual Cylinder
 - Front surface toric
 - Usually has a great visual outcome

Scleral lens fitting

- Lens Material
 - High(est) Dk lens material; plasma or hydra-PEG
 - Considerably thicker when compared to corneal GP
 - 250 microns to 500 microns
 - Optimum Extreme, Menicon Z
- Design and Order
 - Often lens modifications will need to be made from the best trial lens fit
 - Lab Consultants are helpful
 - Some warranties require consultation when re-ordering

Hybrid lens fitting

- GP central button
- Soft surrounding Skirt
 - Provide the optical quality of a GP lens with the comfort of a soft lens
- Should be considered for patient with:
 - High amount of astigmatism
 - No or minimal residual astigmatism
 - Regular and Irregular Corneas



Hybrid Lens Fitting

- Normal Cornea
 - Duette
 - Synergeyes iD
- Irregular Cornea
 - Ultrahealth
 - Ultrahealth FC

Hybrid lens fitting

- Duette
 - Astigmatism and spherical prescription
 - Option for high myopes, soft toric lens wearers, and GP intolerant patients
 - 8.4mm aspheric GP diameter
 - 14.5mm overall diameter with silicone hydrogel skirt
 - Available with hydraPEG
 - To improve lens comfort and wettability
 - Order empirically with Ks and Rx
 - No need to use a diagnostic set

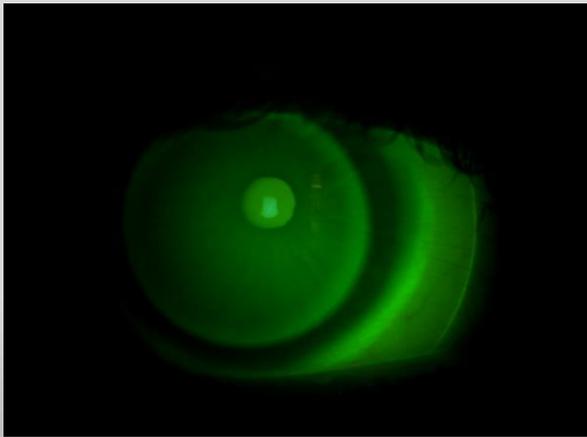
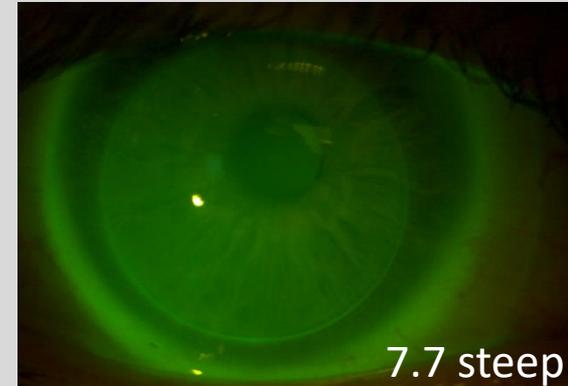
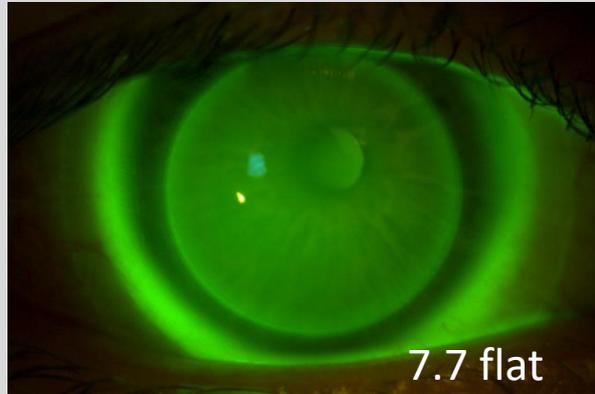
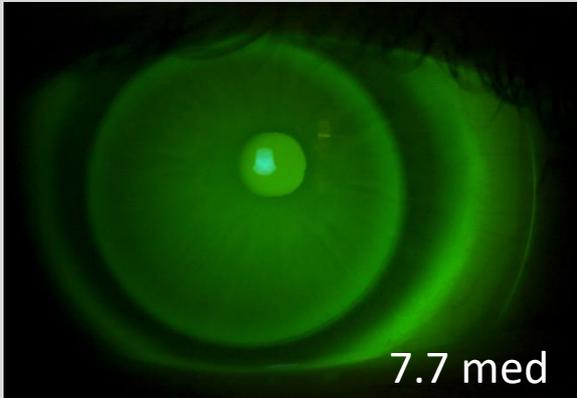
Hybrid lens fitting



- Tips
 - Insert like a scleral lens
 - Flatten the skirt to increase lens movement
 - Steepen the skirt if there is fluting or excessive movement
 - Lens to cornea relationship should be 0.50 to 0.75D steeper than flat K
 - Lens should move 1mm with blink

Hybrid lens Fitting

- Duette (Synergeyes)



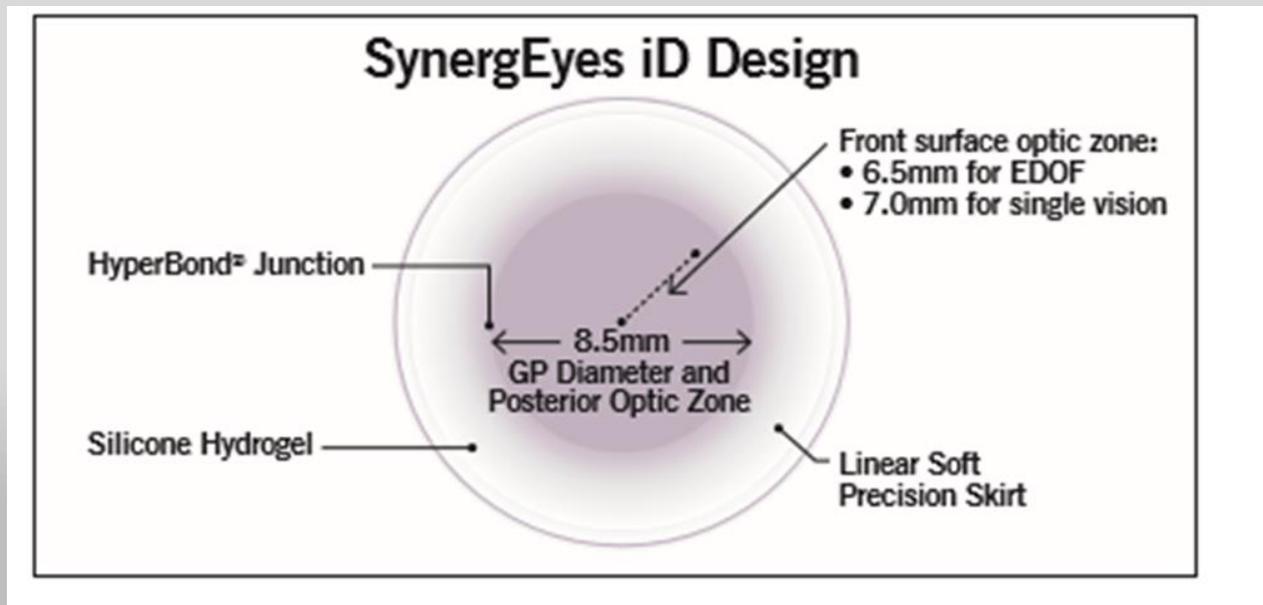
Hybrid lens fitting

- 24 yo female (new patient)
 - Presents wearing soft toric CL and complaints of redness and irritation.
 - MR: OD: pl -4.75 x 010
OS: -1.25 -4.25 x 005
 - Fit into Hybrid Lens
 - Rx'd Clear Care
 - Improved end of day comfort and vision



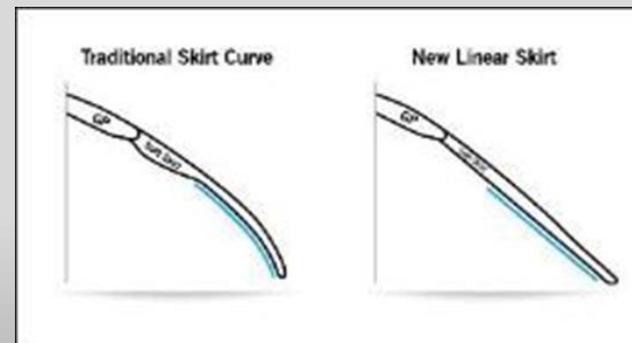
Hybrid lens fitting

- SynergEyes iD (individually designed)
 - K readings up to 6D of corneal astigmatism.
 - Low, Medium, and High add power profiles



Hybrid lens fitting

- SynergEyes iD (individually designed)
 - Single Vision and Multifocal (EDOF)
 - Keratometric readings and corneal diameter
 - New precision skirt – which has a linear shape that mimics the scleral anatomy and is based on the HVID
 - High number is steeper or tighter
 - Low number is flatter or looser
 - Empirical Fitting



Hybrid lens fitting

Right Eye (OD) Choose Your Lens

SynergEyes® iD Single Vision

Enter Keratometry Readings

K1 K2 mm diopters HVID (in 0.01 mm steps)

Enter Manifest Refraction (MR)

Sphere Cylinder

Additional Options Enhanced Profile Tangible Hydra-PEG

Suggested Lens Parameters: SynergEyes® iD Single Vision

Base Curve	Skirt	Power
NA	NA	NA

CLEAR ALL GENERATE SKU

- Empirical Lens Ordering
 - Keratometry readings
 - Refractive Data
 - HVID

Hybrid lens fitting

Right Eye (OD)

SynergEyes® iD Single Vision

Enter Keratometry Readings

K1: 41.00 K2: 42.00 mm diopters HVID (in 0.01 mm steps)

Enter Manifest Refraction (MR)

Sphere: -5.00 Cylinder: -3.00

Additional Options Enhanced Profile Tangible Hydra-PEG

Suggested Lens Parameters: SynergEyes® iD Single Vision

Base Curve	Skirt	Power
8.04	NA	-5.75

Calculated Residual Astigmatism : -2.00



Hybrid Lens Fitting

- iD parameters:

Diameter	14.5mm
Skirt	38 to 49 in increments of 1 step to accommodate HVID range of 10.0 to 13.0mm. HVID outside the measurements will default to 10.0 or 13.0mm.
Base Curves	7.10mm to 8.30mm in increments of 0.01mm
Single Vision Lens Powers	+10.00 to -15.00D +8.00 to -8.00D in 0.25D steps +8.50 to +10.00D in 0.50D steps -8.50 to -15.00D in 0.50D steps
Additional Options:	<ul style="list-style-type: none">• Tangible Hydra-PEG coating available on request• If your patient requires a thicker GP lens to reduce flexure and mask higher amounts of corneal cylinder, they would benefit from the Enhanced Profile Design. Enhanced Profile is automatically added to orders with 2.50D or more of corneal cylinder, and may be requested for less amounts of corneal cylinder.
UV Blocker	UVA and UVB
Recommended Wear & Replacement	Daily Wear Recommended replacement every 6 months

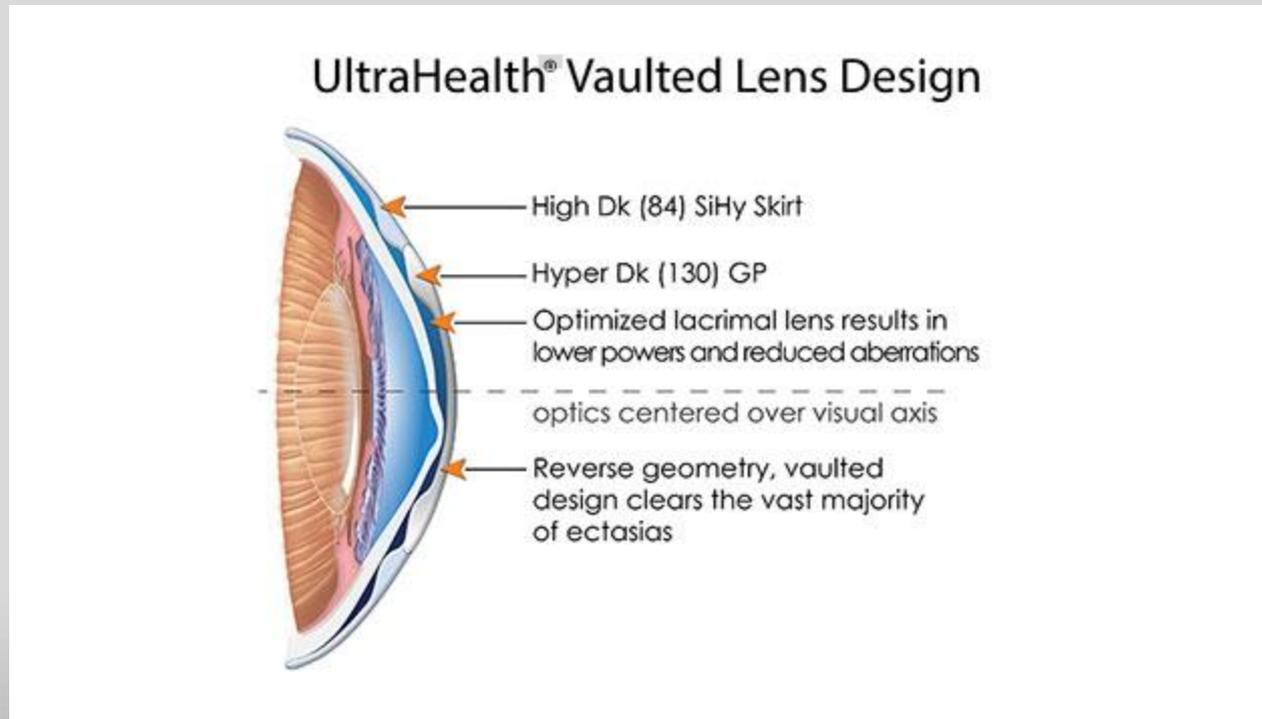
Hybrid lenses

- Ultrahealth (Synergeyes)
 - Designed to Vault Corneal Ectasia
 - Indicated for patient with irregular cornea
 - KCN, post-surgical, etc
 - Aspheric Reverse Geometry GP center (8.5mm)
 - 14.5mm total with SyHy skirt; HydraPEG option
 - Fit with diagnostic set
- UltraHealth FC (flat cornea, oblate design)

Initial Fitting tips for specialty lenses

Hybrid lenses

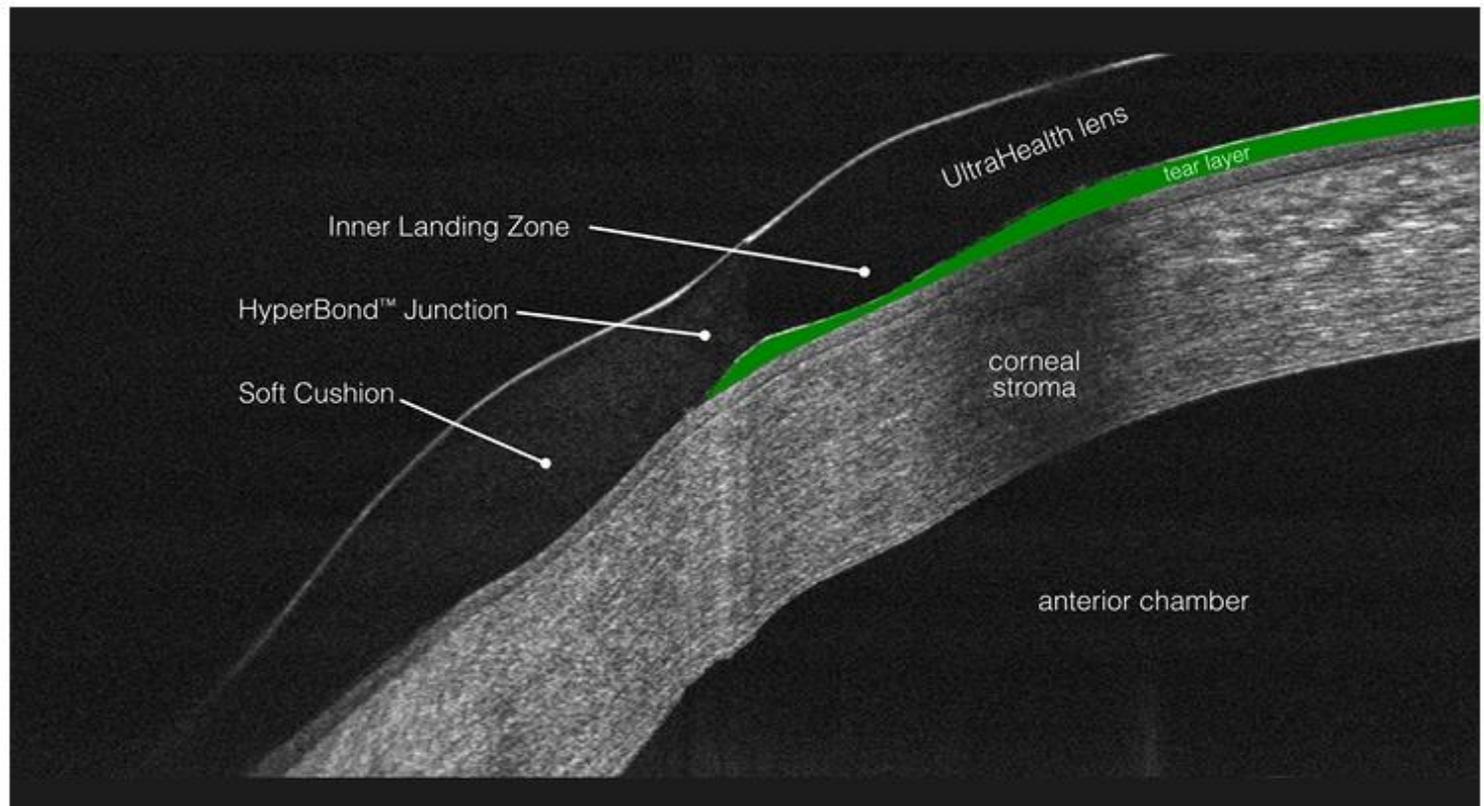
- Ultrahealth



Initial Fitting tips for specialty lenses

Hybrid lenses

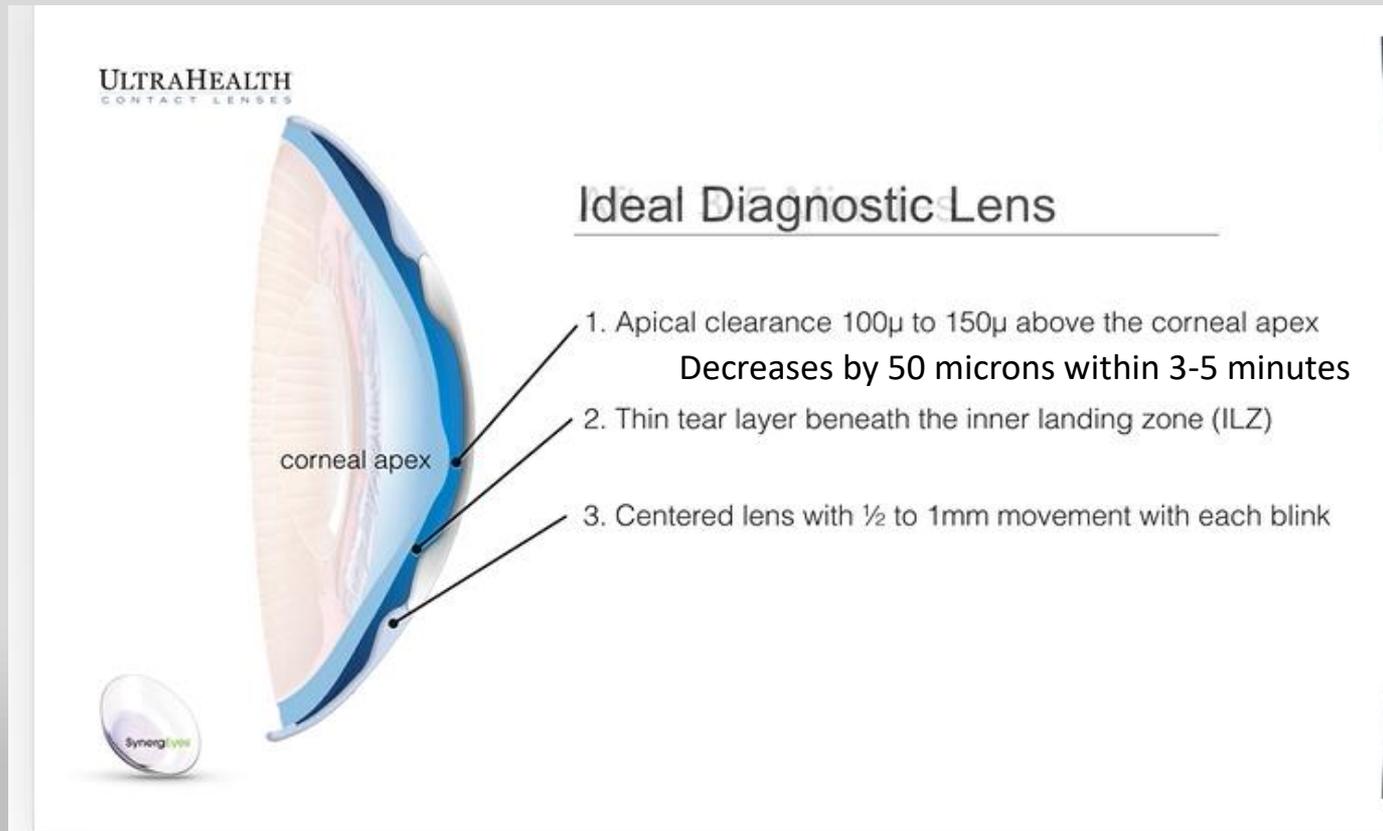
- Ultrahealth



Initial Fitting tips for specialty lenses

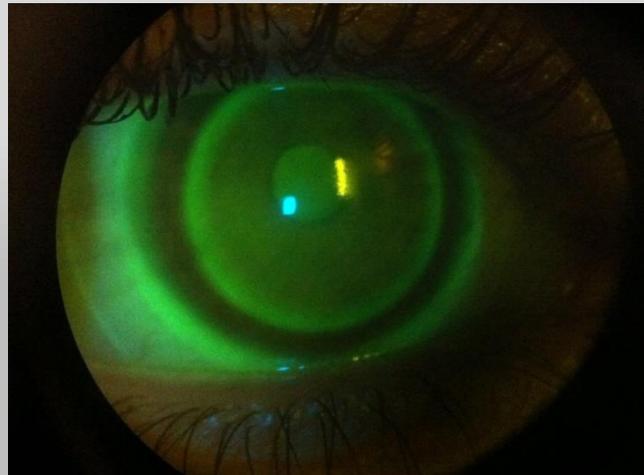
Hybrid lenses

- Ultrahealth



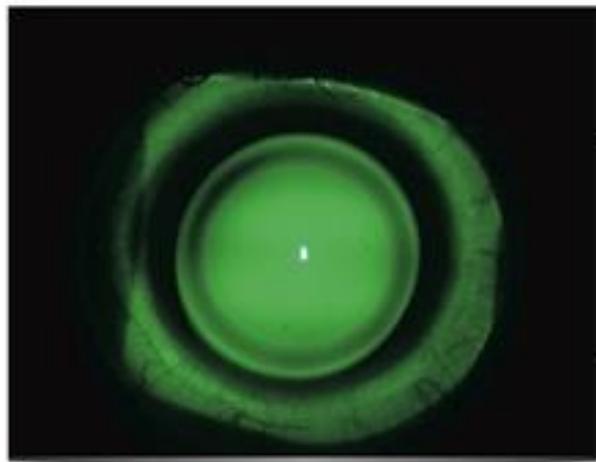
Hybrid lenses

- Ultrahealth (Synergeyes)
 - Initial lens: 250 vault; 8.4 flat skirt; wait 5 minutes
 - Bearing – increase vault 100 microns
 - Pooling – decrease vault 100 microns
 - Tips
 - Make sure you see touch/bearing, then go back up
 - Use NaFl
 - Use tissue to aid in removal



1 Central Vault Determination

Start with the 250 μ vault and 8.4 radius (flat skirt) diagnostic lens



Ideal Fit



Light Bearing

Add 100 μ to lens



Heavy Bearing

Add 150 μ to lens



Hybrid MF Notes

- *Lenticular Cylinder*

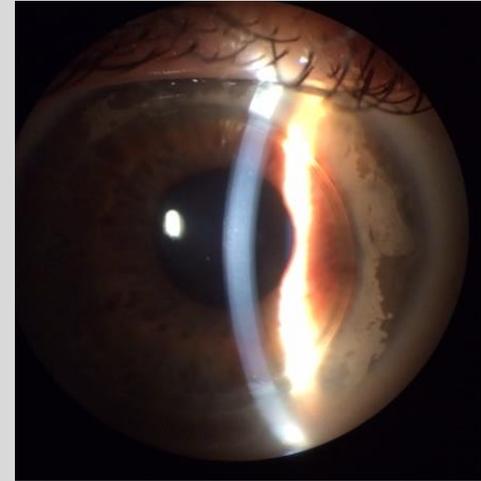
- 1.00D or greater **NOT A CANDIDATE**

- *Recommended Solutions*

- Lobob Extra strength cleaner, Clear Care, Biotrue

- *White Deposit Ring on soft skirt*

- Tear chemistry of some patients may react with the peroxide to cause a permanent white ring at the junction of the GP lens/soft skirt



A review of lens fitting

Thank you for your time.

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