essilor

CUSTOM CONTACT LENS
SPECIALISTS

Perimeter™

Fitting Guide

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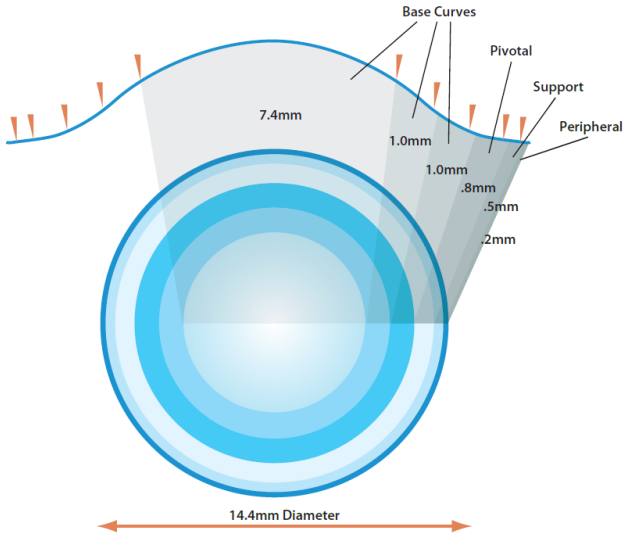
ePerimeter™

Fitting Guide

LENS DESIGN

The Perimeter design is predicated upon achieving a fitting relationship that aligns with the central cornea, vaults the limbal area, then aligns the peripheral lens portion with the sclera. It is available in four diameters with a fixed relationship between the optic zone and overall lens size.



BASE CURVE	POWER	DIAMETER
4.00 - 9.00	+20.00 to -20.00	14.00 - 14.80

FIT SET PERAMETERS

DESIGN	BASE CURVE	POWER	DIAMETER
Perimeter™	8.44	+1.00	14.40
	8.23	+0.00	14.40
	8.04	-1.00	14.40
	7.85	-2.00	14.40
	7.67	-3.00	14.40
	7.50	-4.00	14.40
	7.34	-5.00	14.40
	7.18	-6.00	14.20
	7.03	-7.00	14.20
	6.89	-8.00	14.20
	6.75	-9.00	14.20
	6.49	-11.00	14.20
	6.25	-13.00	14.20
	6.03	-15.00	14.20

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INITIAL LENS SELECTION

- **Select the Inital diagonostic lens using one of these three methods:**
  - Corneal Topography: Use the Elevation Map to aid in determining the average sagittal height of the eye. The Elevation Map depicts the relative height differences from which the corneal curvature varies from a computer-generated reference sphere.
  - Keratometry: Choose the base curve based on either mean K or the average of the Sim K's.
  - Empirical Lens Choice: If accurate corneal measurements aren't possible, choose a lens from the steeper section of the trial set. begin with a lens that has excessive vaulting, then select lenses with progressively flatter base curves until the fit has the proper relationship to the sclera.
- **Evaluate the diagnostic lens fit:**
  - Look at the overall fit and look for centration and for the clearance over the limbus. This lens is designed to just lift over the limbus and lie on the sclera. Note: if you have chosen a lens with a base curve that is too flat, there will be excessive edge lift away from the sclera while the rest of the fitting relationship appears to be ideal.
    - The lens should move slightly during the blink, facilitating tear exchange and allowing for easy removal.
    - If there is not enough clearance over the limbus. order the Pivot Curve .5 steeper than standard.
    - If there is too much clearance over the limbus, order the Pivot Curve .5 flatter (only if there is a bubble that doesn't dissipate).
  - When this is done, an Essilor Consultant will calculate the change in base curve needed (either steeper or flatter) to keep the rest of the lens fit the same.
  - If the Support Curve is too close to the outer edge of the limbus, increase the overall diameter of the lens. An Essilor Consultant will calculate the new base curve needed for any change in diameter to keep the rest of the lens fit the same.
  - If the fit is tight at the outer edge of the lens with clearance at the inner edge of the Support Curve, the Support Curve needs to be flattened.
  - Lens should settle about 20 minutes once a good fit is achieved to check for settling in the conjunctive area.
  - Once the best fit diagnostic lens is found, allow the lens to settle on the eye for at least 20 minutes. 20 minutes is the shortest settling time before evaluation, but longer settling times will reduce remake rates and also reduce office visits and total chair time. Hours are better than minutes and will save you unnecessary chair time.
- **Refine visual needs:**
  - Perform a sphero-cylinder over refraction to determine best acuity.

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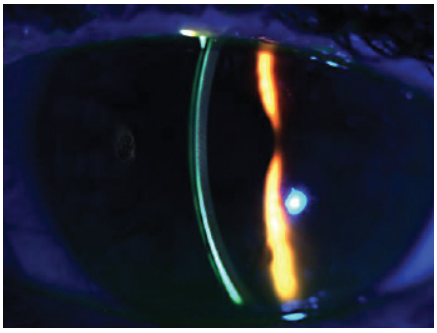
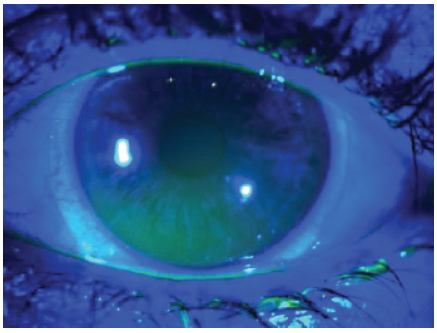
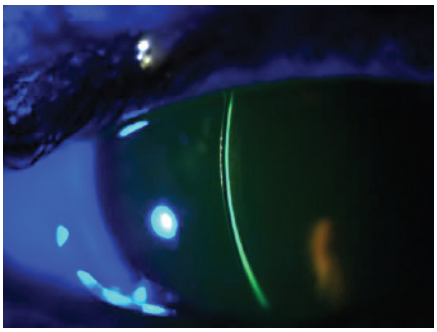
FIT EXAMPLE #1

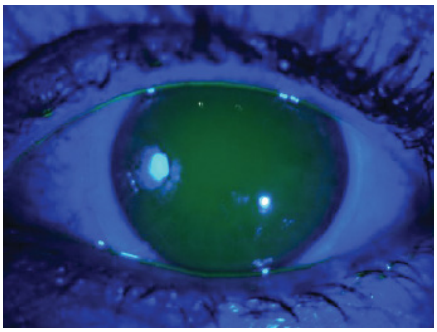
IDEAL FIT



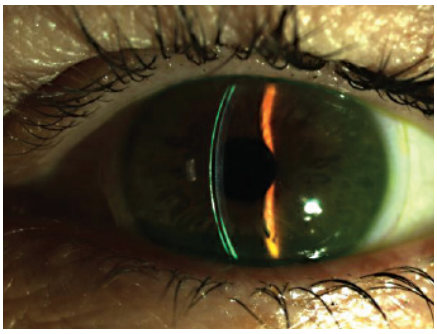


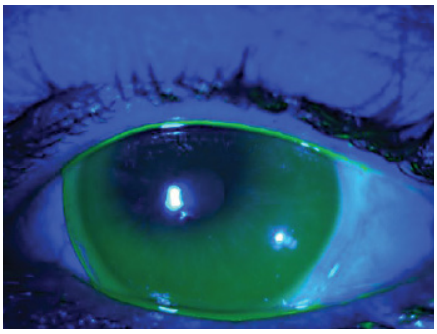
STEEP FIT





FLAT FIT





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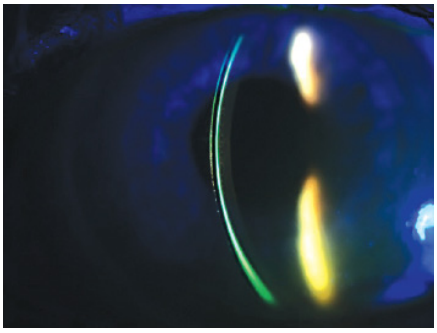
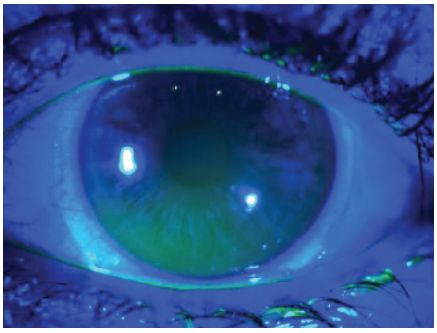
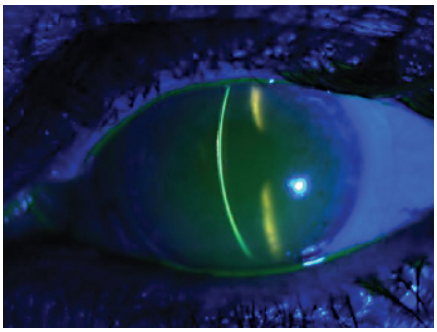
FIT EXAMPLE #2

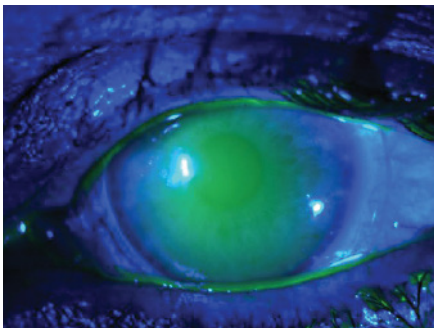
IDEAL FIT



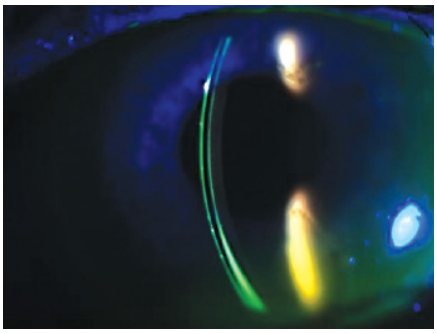


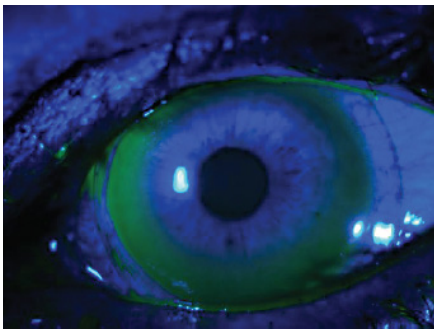
STEEP FIT





FLAT FIT





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FITTING TIPS

- When the proper trial lens is chosen, comfort should not be an issue. After insertion the lens very quickly settles onto the eye.
- Once the best fit diagnostic lens is found, allow the lens to settle on the eye for at least 20 minutes.
- There should be no compression of the blood vessels in the sclera and no compression marks left when the lens is removed.
- There should be no lens adherence or any difficulty with removal.
- The proper fitting curves first land on the sclera then the weight is shared across the cornea while clearing the limbus.
- The lens can be manufactured as large as 14.8mm diameter if the patient has an exceptionally wide limbal area, or as small as 14.0mm for patients with a small cornea.
- The key to the fit is determining the height from the apex of the cornea to the sclera with the trial lens.
- Your Essilor Consultants are available to aid in designing more or less clearance in different areas and still maintain the same overall sagittal height.
- The lens shape can be customized to fit over most of the irregular corneal needs:
  - Tilted corneal grafts
  - Reverse geometry corneas
  - Keratoconus
  - Pellucid marginal degeneration
  - Corneal flattening inserts
- This lens requires that part of the weight is shared on the surface of the cornea and the apex of the cone is not the proper place to share the weight.
- This should never be the first lens of choice for developed cones.
- The Essilor Perimeter lens is not a small scleral lens, it is a custom large corneal lens.

If an eye cannot be fit with the Essilor Perimeter design diagnostic lens, consider fitting with the larger Essilor Jupiter Scleral Lens.

*Unless otherwise noted images courtesy of Michael J. Lyons, OD, FAAO.