RevEyes™

Reverse Geometry Soft Contact Lens

Indication

- When a standard soft or RGP lens design will not fit eyes in which the central corneal curvature is flatter than the para-central corneal curve.

- Condition may be due to a surgical graft, RK, PRK, LASIK or other reasons.

RevEyes™ Lens Design

Central Curve (center)
Para-Central Curve (periphery)

Description

The posterior surface of the lens consists of a flat central curve, steeper para-central curve, and a final peripheral curve. All curves are aspheric and available in a wide rage of radii and zone diameters. The para-central curve is similar in design to the base curve of a standard soft lens and the 8.6 mm. radius curve with a 14.5 mm. diameter should fit the majority of eyes unless corneal topography or pre-surgical K readings indicate that the para-central cornea is steeper or flatter than normal.

The anterior surface has an aspheric central optical portion to correct for spherical aberration and a thinner flange curve to maximize oxygen to the cornea. When residual astigmatism indicates that a toric lens is needed, double slab-off ballasting may be used to stabilize lens rotation.

The vial label will show the standard parameters as well as central / para-central curves.

Materials Available

- Hioxifilcon A (standard), Glycerol Methacrylate polymer with 59% water content. This material is known for more resistance to dehydration, less flexure, and better optical properties than other soft lens materials.

- Methafilcon A is widely used for toric and specialty lenses and is known for good durability.

- Our staff can guide you in the selection of the best polymer for each case.

Fitting Theory

The goals are to fit as much normal peripheral cornea and sclera as possible with the para-central and the peripheral curve in much the same way you would fit a standard soft lens. Then fit the central curve that has the proper sagittal

depth to lightly touch the central cornea. You may call our fitting consultants with keratometry readings and Spectacle Rx (corneal topography is also useful) and we will design the lens for you. It is highly recommended that a diagnostic lens set be used to evaluate the fit of the RG Soft lens.

Lenses in the diagnostic set are differentiated by the central curve and power. Although the basic Diagnostic set lenses are all 8.6- mm. para-central radius with a 14.5 mm diameter, other parameters are available.

Parameters Available

Reveyes
Reveyes Toric

Diagnostic Lenses	14.5 diameter	8.6 paracentral fitting curve
4 Lens Dx Set	9.1, 9.4, 9.7, 10.0 base curves @7.8 POZ	

- All lenses are covered by a manufactures guarantee that they are to specification & free from defects.

Diagnostic Lens Fitting Method

1. Select Initial Base Curve

- Use the chart below to select the radius of the initial lens based on the AVERAGE of the steepest and flattest K-readings (select the closest Central Curve by adding 0.4 to FLATTEST central K).

- If K-readings are not available or reliable, choose the 9.4/8.6 mm. lens as the initial diagnostic lens.

- When needed, other base curves and paracentral curves are available.

Flat K	Label	Para-Central Curve Radius	Total Lens Diameter
34.00 to 35.25	10.00		
35.50 to 36.75	9.70	8.6 mm	14.5 mm
37.00 to 38.25	9.40	in standard	in standard
38.50 to 39.75	9.10	Diagnostic Set	Diagnostic Set

2. Evaluate the two areas of lens

CENTRAL CURVE - Under slit-lamp examination, the central curve area should be free of folds. Since the fit of the central curve determines the quality of the optical system, it is best determined by optical methods.

- **Keratometry** over the lens should show RELATIVELY crisp mires with REGULAR astigmatism.

- **Retinoscopy** over the lens should look like that from a standard soft lens in the central optical zone.

- **Refraction** over the lens (Sphere and Cylinder) should give a stable endpoint with acuity comparable to the best acuity expected from this patient.

The optimal central curve is the one that gives the least fluctuations in any of these findings. A larger (flatter) central curve will correct for one that is too steep and vaults the cornea and a smaller (steeper) central curve will correct for one that is too flat and causes excessive lift in the para-central lens.

PARA-CENTRAL CURVE - Look for the characteristics of a standard soft lens fit. Edge buckle, edge lift, or excessive movement indicates a loose lens. Order a lens with the para-central curve whose radius is steeper by 0.3 mm (from the standard 8.6 mm to 8.3 mm). If the para-central curve is too tight, you will get excessive central clearance and the vision will be stable only immediately after the blink. Compressed vessels or little lens movement also indicate a tight para-central curve. Use an 8.9 para-central radius to correct tight fit.

When making changes to the radii of either the Central or para-central curves, 0.3 mm steps recommended in order to see a significant difference.

Example #1	37.00 Flat central K =	9.12
	Add	0.40
	Central Curve:	9.52 (choose 9.4 from set or order 9.4/8.6)
Example #2	41.50 Flat central K =	8.13
	Add	0.40
	Central Curve:	8.53

Note: In Example #2, you would not order a reverse geometry lens UNLESS it has 8.3 OR STEEPER para-central curve (8.5/8.3 or 8.5/8.0)

3. Order the lens by

- Central Curve radius and posterior optic zone (POZ) size;

- Power (Sphero-cylinder over-refraction and trial lens used, or Final power)

- Para-central curve radius (Ex: 8.0, 8.3, 8.6, 8.9, 9.2, etc.)

- Diameter (Ex. 14.0, 14.5, 15.0, etc)

Please contact our consultants for design assistance at **877.533.1509.**

We can adjust the parameters of the lens to accommodate most situations.