Plateau Design

MG Series

Professional Fitting Guide

Phone # 800 488-2020 Fax # 800 300-3299
INTRODUCTION

Visionary Contact Lens’ MG™ Series of lenses is one of the most innovative rigid gas permeable (RGP) contact lenses available on the market. The MG™ lens has had a successful fitting history since its introduction to the profession.

Practitioners report that the MG™ design experiences a high success rate. The MG™ design also works for a wide cross section of patients and a wide range of application. Additionally, it is as easy to fit as a spherical RGP.

ACKNOWLEDGEMENTS

Visionary Contact Lens Inc. would like to thank Nicholas Green OD, F.I.O.S. F.A.A.O. and Stuart Grant OD, F.A.A.O., F.I.O.S. for their contributions and support in the development of this fitting guide. Without their expertise this guide would not be possible.
PRODUCT DESCRIPTION

The Visionary MG™ lens is a plateau multicurve lens design that aides practitioners in the fitting of irregular corneas post refractive surgery corneas, and patients desiring vision improvement.

The MG™ lens is fit with a base curve from 2.00 to 5.00 diopters flatter than flat corneal K. The steep secondary curve is from 6.00 to 10.00 diopters steeper than the base curve.

The alignment curve is usually 0.00 to 4.00 diopters steeper than flat K. The peripheral curves are aspheric to ensure continuous tear flow. Tear flow is a major factor for patient comfort.

This design has been developed over the past 2½ years by working directly with practitioners and tracking the results on their patients.

The lens design is able to achieve its exceptional optics and revolutionary fit through the rapid transition in curvature across the surface of the lens.
Base Curve 6.0 mm through 7.5
Steep Curve 6 diopters steeper than Base Curve
Alignment Curve 3 diopters steeper than Base Curve
Aspheric Peripheral Curve

MG 6

Base Curve 6.0 mm through 7.5 mm
Steep Curve 8 diopters steeper than Base Curve
Alignment Curve 4 diopters steeper than Base Curve
Aspheric Peripheral Curve

MG 8

Base Curve 6.0 mm through 7.5 mm
Steep Curve 10 diopters steeper than Base Curve
Alignment Curve 5 diopters steeper than Base Curve
Aspheric Peripheral Curve

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PRODUCT DESCRIPTION (Continued)

- Lens Parameters Available

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
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<tbody>
<tr>
<td>Power Range</td>
<td>-20.00D to +20.00D</td>
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<tr>
<td></td>
<td>in .12D increments</td>
</tr>
<tr>
<td>Diameter Range</td>
<td>8.7mm to 11.5 mm</td>
</tr>
<tr>
<td>Base Curve Range</td>
<td>7.30 mm to 10.0 mm</td>
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<td></td>
<td>in 0.01 mm increments</td>
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<tr>
<td>Lens Thickness Range</td>
<td>.17mm to .35mm</td>
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<tr>
<td>Material</td>
<td>Paragon HDS</td>
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</table>

- Materials Available

Visionary Contact Lens can produce the MG™ lens from any polymer material however; it is strongly recommended that the MG™ be manufactured from Paragon HDS™. Paragon HDS™ has a DK of 58 and a wetting angle of 14.7. The material is available in the colors of blue and green and with or without UV inhibitors. The Paragon HDS™ material has been approved by the FDA for overnight wear. The combination of the high Dk and the exceptional durability of this lens make it perfect for the Visionary MG™ lens design applications.
SELECTION OF PATIENT

Visionary's MG™ lens is for the myopic patient who desires improved unaided acuity. It also works well for the complex cornea shape that is difficult to fit such as, irregular astigmatism and post RK patients.

Select Group:

- Patient with - 6.00 or less diopters
- Patients with any diopter value who desire improved functional vision
- Current RGP contact lens wearers (unless cornea has been altered by RK/ALK)
- Current soft contact lens wearers

Risk Group:

The following patient group may be a risk for a successful MG™ fit.

- More than 2.00D of against the rule cylinder.
- More than 2.00D of spectacle or lenticular cylinder.
- Flat corneas of 39.00D or flatter.
- Previous non-adaptable RGP wearers.
- Previous or current RGP patients (due to altered cornea)
- Non-motivated patients.
PRE-FITTING EXAMINATION

The pre-fitting examination is crucial to gather information to assure the most success.

1. Interview to determine patient motivation, purpose, personal experiences and resulting attitude toward contact lenses; wanting to improve unaided visual acuity.

2. Note patient lifestyle including work habits, hobbies and visual requirements.

3. Determine optimum or preferred lens color and UV protection options.

4. Record the following ocular measurements for initial contact lens parameter selection.
   - Keratometer readings and axis.
   - Temporal keratometer readings
   - Spectacle refraction.
   - Measurement of the palpebral fissure, lid position, corneal diameter and pupil size under normal light conditions.
   - Take topography if possible.
   Shape Factor*

5. Record the following clinical information for use in comparing post fit changes:
   - Assessment of cornea lids.
   - Conjunctiva and precorneal tear film.
PRE-FITTING PROCEDURE (Continued)

The goal of a good fit is to achieve centration of the lens over the pupil. The lens must translate well with the blink (1-2mm).

- **Required Measurements**

  **Keratometry**

  Record patient’s K readings and axis. Note both the flat and steep K measurement. Take temporal K readings if topography is not available. These measurements are critical for an accurate fit. Repeat measurements to ensure accuracy.

  **Refraction**

  Record in minus cylinder and note vertex distance if correction is 4.00D or more in any meridian.

  *Note: Shape Factor:*

  Shape Factor is the difference between the horizontal temporal K and the central K. If the temporal K is flatter than the horizontal central K this is called a (PLUS Shape Factor). If the horizontal horizontal central K is flatter than the temporal K this is a (MINUS Shape Factor).

  To take temporal K’s have the patient look at the left target with their right eye and the right target with their left eye.
FITTING PROCEDURE

- Lens Parameters

Base Curve

The purpose of the MG™ lens design is to direct the central part of the cornea out to the periphery to reduce myopia.

The MG™ lens uses a trial fit procedure as follows:

1. Begin with a trial lens 4.00 diopters flatter than the flat K. For instance, a patient K of 44.00 D uses a 40.00-D base curve.
2. Let the lens settle for 5 to 10 minutes.
3. Check fluorescein and peripheral rings. Fluorescein needs to be present in the peripheral ring. Refer to (Figure 1).
4. Recheck Fluorescein after another 15-20 minutes. If Fluorescein is still present in peripheral ring recheck one half to one hour later.
5. If fluorescein pattern still has not changed take over refraction and order the lens based on the trial lens fit.
Figure 1
Fluorescein Pattern Showing Desired Fit

Figure 2
Fluorescein Pattern Showing Central Pooling
Figure 3
Fluorescein Pattern Showing No Peripheral Rings

Figure 4
Fluorescein Showing Peripheral Rings not Centered

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FITTING PROCEDURE (Continued)

6. If any of the fluorescein analysis show central pooling (Refer to Figure 2) or no peripheral rings (See Figure 3) try a new trial lens ½ diopter flatter.

7. Continue trying flatter trial lenses in ½ diopter steps until you achieve a proper fluorescein pattern as in (Figure 1).

8. If the lens has excessive movement and the peripheral rings are not centered as in (Figure 4) fit steeper trial lenses in ½ diopter steps until you achieve a proper fluorescein pattern as in (Figure 1).

9. If initial fit looks good and signs of change develop to the fluorescein pattern, within a half-hour, this means the cornea has changed already.

10. Remove the trial lens and retake keratometer readings or topography and refit with a new lens repeating steps 2 through 5.
FITTING PROCEDURE (Continued)

• Consultation

If preferred, the practitioner may have the lens designed by a fitting consultant. If consultation is sought, information obtained during the pre-fitting examination is necessary. (Refer to the Pre-Fitting Examination section for details.)

If a refit is necessary it is essential that the following information be available for the consultant.

- Lens centration / position
- Lens movement
- Fluorescein pattern (peripheral ring)
- Over refraction
- Comfort Factor
- Base K and changes
- Topography preferred
- Trial lens specifications

Visionary Contact Lens has MG™ fitting sets and a fitting consultant available during standard office hours. There is no charge for consultation.

Call (800) 488-2020
CLINICAL ASSESSMENT (Continued)

- Adjustments to Fit

Centration

The lens centration is crucial. Double image, increase of astigmatism, or with the rule and against the rule will occur if the lens is not centering properly. If the lens is not centered properly the MG™ can be fit with a steeper base curve or steeper steep curve to achieve centration. Centration can be promoted also with a larger diameter or in some cases additional prism.

Over refraction

- Eliminate all excess minus to the point of slight distance blur.

- Re-evaluate the fit after at least 8 to 10 hours of wear.

- Wearing time should be based on the needs of the patient.
ADVERSE EFFECTS

The same precautions used for standard RGP lens usage should be observed for the MG™.

Despite precautions, the patient should be informed that the following problems may occur:

- Comfort less than when lens was first placed on the eye.
- Feeling of something in the eye such as foreign body, scratched area.
- Excessive watering (tearing) of the eyes.
- Smokey hazy vision.

If the patient notices any of the above symptoms he / she should immediately remove the lenses. If the discomfort or problem stops, then closely inspect the lens. If the lens is in any way damaged do not put the lens back on the eye. Place the lens in storage case and contact the practitioner.

If the lens has dirt, an eyelash, or other foreign body, or the problem stops and the lens appears undamaged, the patient should thoroughly clean, rinse, and disinfect the lenses then reinset them. After reinsertion, if the problem continues, the patient should immediately remove the lenses and consult the practitioner.
ADVERSE EFFECTS (Continued)

If the patient experiences poor visual retention and / or distorted vision and visual acuity seems to worsen with time off the lens, you should increase the wearing time of the MG™ lens. If the patient has blurred vision and is found to be hyperoptic in the morning and vision gets better as the day goes on, you may want to reduce wearing time of the MG™ lens. This assumes a correct and flat fit.

The patient should be informed that the following problems may also occur:

- Eyes stinging, burning, itching (irritation), or other eye-pain.
- Reduced sharpness of vision (poor visual acuity)
- Blurred vision, rainbows, or halos around objects.
- Sensitivity to light (photophobia)
- Dry and / or redness of the eyes

If the patient notices any of the above symptoms he / she should be instructed to immediately remove lenses. When any of the above problems occur, a serious condition such as infection, corneal ulcer, neovascularization, or iritis may be present. The patient should be instructed to keep the lens off the eye and seek immediate professional identification of the problem and prompt treatment to avoid serious eye damage.