

Considering Contact Lens Corneal Refractive Therapy?

**Patient Information Booklet for Potential Users of
Paragon CRT™ and Paragon CRT™ 100
Contact Lenses for Contact Lens Corneal Refractive Therapy**

**PATIENT INFORMATION BOOKLET
FOR POTENTIAL USERS OF**

Paragon CRT™

Manufactured in Paragon HDS® (paflucocon B)

Or

Paragon CRT™ 100

Manufactured in Paragon HDS® 100 (paflucocon D)

**Contact Lenses For
Contact Lens Corneal Refractive Therapy**

Overnight Wear

CAUTION: Federal law restricts this device to sale by, or on the order of a licensed practitioner.

Contact lenses for Corneal Refractive Therapy should be fitted only by a contact lens fitter trained and certified in the fitting of conventional (non-reverse geometry), sigmoid geometry, and reverse geometry contact lenses.

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INTRODUCTION

The information in this booklet is to help you decide whether or not to be fitted with Paragon CRT™ or Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy. Contact Lens Corneal Refractive Therapy is a fitting procedure that temporarily corrects or greatly reduces nearsightedness (known by the medical name, myopia) with or without astigmatism after contact lenses have been removed. By temporary, it is meant that the contact lenses are worn while sleeping (overnight) and then removed upon awakening; whereupon the nearsightedness remains corrected or greatly reduced for all or most of your waking hours. The exact time period over which the myopia remains corrected varies with each patient. Generally, Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy must be worn each night to maintain the effect.

Note: Contact lenses for Corneal Refractive Therapy should be fitted only by a contact lens fitter trained and certified in the fitting of conventional (non-reverse geometry), sigmoid geometry, and reverse geometry contact lenses.

HOW THE EYE FUNCTIONS

The eye is very much like a camera and must be in good focus to see objects clearly. The focusing power of the eye comes from two eye structures, the cornea and the lens (Figure 1).

LIGHT ENTERING THE EYE

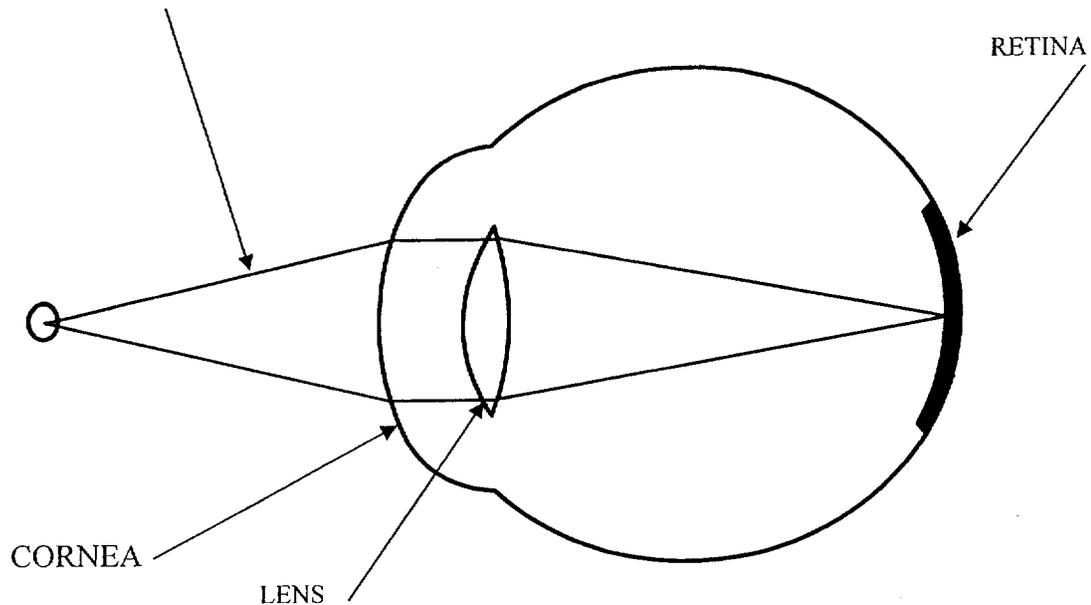


Figure 1: Normal Eye

The cornea is the clear, bubble-like structure on the front of the eye, where light first enters the eye. It provides about two-thirds of the eye's focusing power, and the lens inside the eye provides the other third. In a normal eye light focuses at the retina, at the back of the eye, which acts like the film in a camera.

Some eyes focus, or refract, the light too much, so that the images of distant objects are formed in front of the retina, and the image on the retina is blurred, producing myopia (Figure 2).

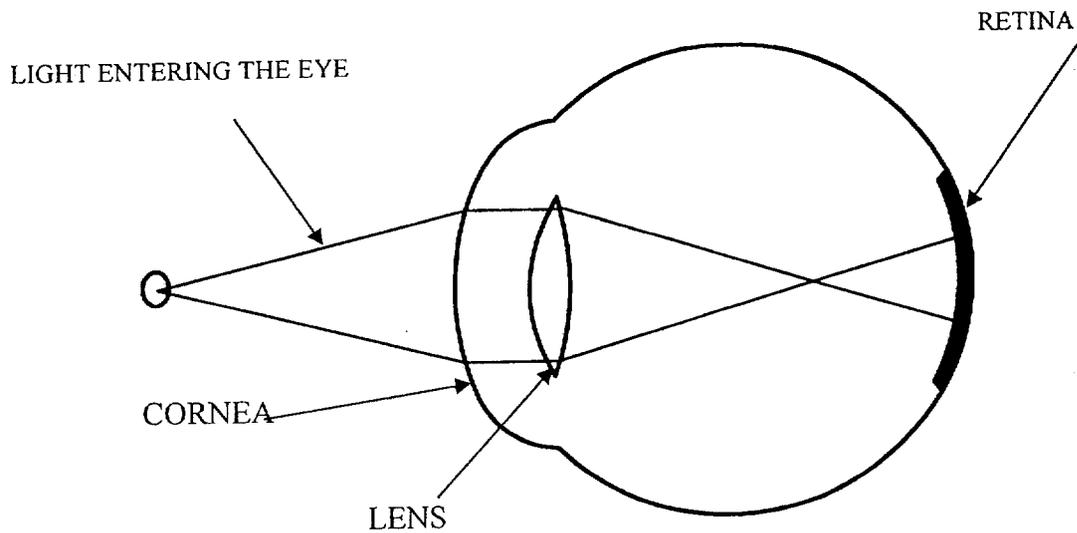


Figure 2: Nearsighted Eye

Myopia usually starts in childhood and gets progressively worse through adolescence. It normally stops increasing by the late teens, but it may sometimes continue to get worse into the mid-twenties.

HOW PARAGON CRT™ AND PARAGON CRT™ 100 CONTACT LENSES FOR CORNEAL REFRACTIVE THERAPY FUNCTION

These contact lens designs for Corneal Refractive Therapy produce a temporary reduction of nearsightedness by changing the shape (by flattening) of the cornea, which is elastic in nature. Contact lenses rest gently on the cornea, separated only by a layer of tears, and can influence the corneal shape. Regular contact lenses are designed to nearly match the shape of the cornea and thereby cause little or no flattening effect. Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy are designed purposely not to match the shape of the cornea, but instead to apply slight pressure to the center of the cornea (Figure 3).

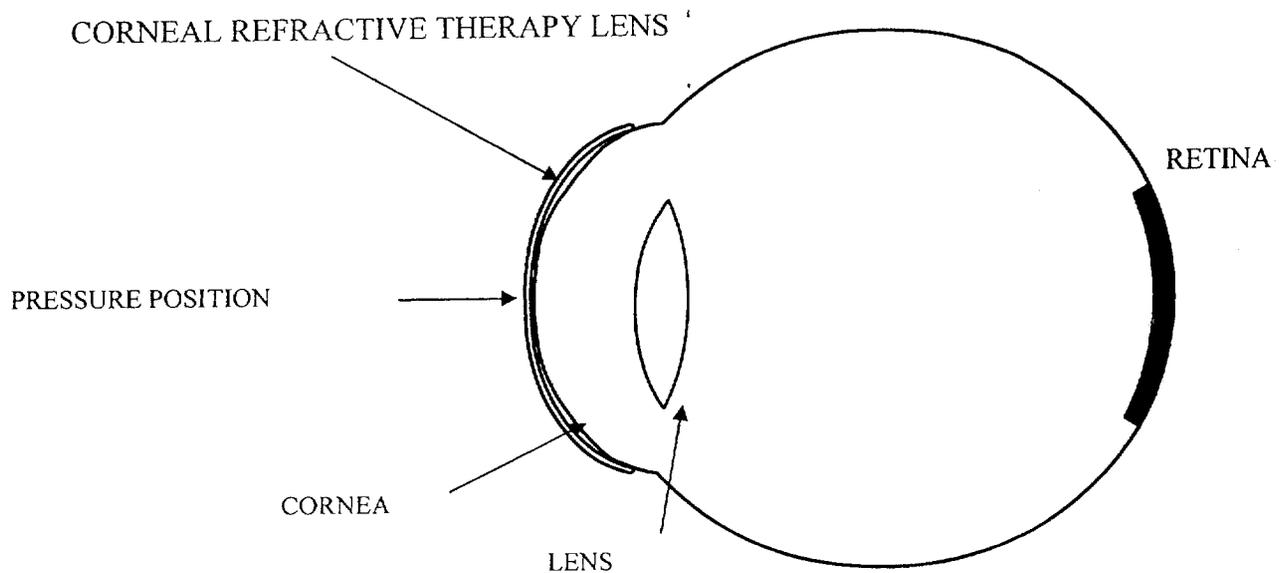


Figure 3: Eye Fitted With The CRT™ Contact Lens Design For Corneal Refractive Therapy

Pressure is produced when the lens is less curved than the cornea, which places more of the lens weight on the center of the cornea.

If the cornea is flattened this reduces the focusing power of the eye, and if the amount of corneal flattening is sufficient, it is possible to bring the eye into correct focus and compensate for myopia (Figure 4).

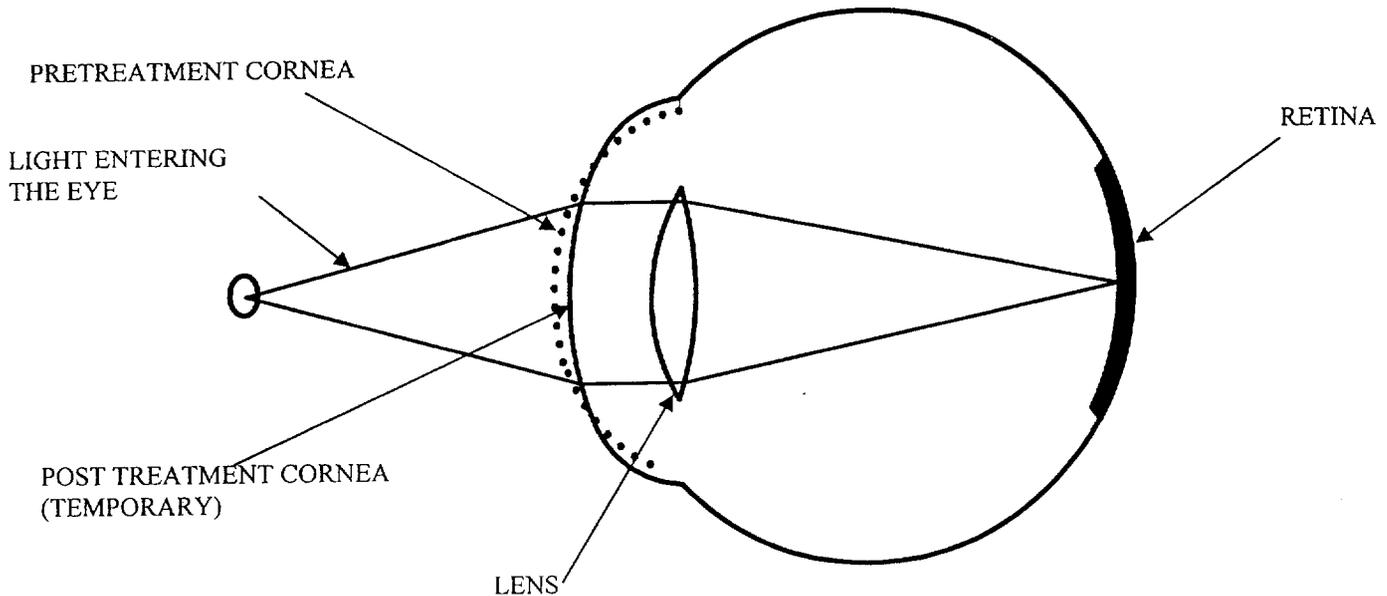


Figure 4: Nearsighted Eye After Contact Lens Corneal Refractive Therapy

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy are generally worn overnight. After the lens is removed, the cornea retains its altered shape and corrected focus for all or most of your waking hours.

These contact lenses for Corneal Refractive Therapy are indicated for patients who want to see clearly during their daily activities, free from the inconvenience traditional of contact lenses or spectacles. Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy may also be indicated for occupations that require exposure to smoke, noxious gases or conditions of low humidity.

These contact lenses for Corneal Refractive Therapy produce a temporary reduction of all or part of your myopia. The amount of reduction will depend on many factors, including the amount of your initial myopia, the elastic characteristics of your eye and the way that the contact lens fits on your eye.

ALTERNATIVE WAYS TO CORRECT NEARSIGHTEDNESS

Nearsightedness (myopia) can be corrected by any method that reduces the focusing power of the eye. The most common methods of reduction are by eyeglasses or regular daily wear or extended wear contact lenses. These represent a means of correcting myopia only during the time that the eyeglasses or regular contact lenses are worn, with no lasting effect on the myopia. Other methods of correcting myopia involve various surgical procedures such as LASIK.

RISK ANALYSIS

There is a small risk involved when any contact lens is worn. It is not expected that Paragon CRT™ or Paragon CRT™ 100 contact lenses for orthokeratology will provide a risk that is greater than other rigid gas permeable contact lenses.

The two most common side effects, which occur in rigid contact lens wearers are corneal edema and corneal staining. It is anticipated that these two side effects will also occur in some wearers of Paragon CRT™ or Paragon CRT™ 100 contact lenses for orthokeratology. Other side effects, which sometimes occur in all hard contact lens wearers are pain, redness, tearing, irritation, discharge, abrasion of the eye or distortion of vision. These are usually temporary conditions if the contact lenses are removed promptly and professional care is obtained. When overnight orthokeratology lenses dislocate during sleep, transient distorted vision may occur the following morning after removal of the lenses. This distortion may not be immediately corrected with spectacle lenses. The duration of distorted vision would rarely be greater than the duration of the daily visual improvement normally achieved with the lenses.

In rare instances, there may occur permanent corneal scarring, decreased vision, infections of the eye, corneal ulcer, iritis, or neovascularization. The occurrence of these side effects should be minimized or completely eliminated if proper schedule of care is followed. You should remove your contact lenses if any abnormal signs are present.

INDICATIONS

Paragon CRT™ (paflucocon B) and Paragon CRT™ 100 (paflucocon D) Rigid Gas Permeable Contact Lenses for Corneal Refractive Therapy are indicated for use in the reduction of myopic refractive error in nondiseased eyes. The lenses are indicated for overnight wear in a Corneal Refractive Therapy fitting program for the temporary reduction of myopia up to 6.00 diopters in eyes with astigmatism up to 1.75 diopters. The lenses may be disinfected using only a chemical disinfection system.

Note: To maintain the Corneal Refractive Therapy effect of myopia reduction overnight lens wear must be continued on a prescribed schedule. Failure to do so can affect daily activities (e.g., night driving), visual fluctuations and changes in intended correction.

PRECAUTIONS

General

Clinical studies have demonstrated that Paragon CRT™ and Paragon CRT™ 100 contact lenses manufactured from Paragon HDS® and Paragon HDS® 100 respectively are safe and effective for their intended use. However, due to the small number of patients enrolled in the clinical investigation of lenses, all refractive powers, design configurations, and lens parameters available in the lens materials were not evaluated in significant numbers. This is especially true for adolescent subjects in this investigation. Consequently, when selecting an appropriate lens design and parameters, the eye care practitioner should consider all characteristics of the lens that can affect lens performance and your ocular health; including, oxygen permeability, wettability, central and peripheral thickness, and optic zone diameter.

The potential impact of these factors on your ocular health should be carefully weighed against your need for refractive reduction; therefore, your continuing ocular health and lens performance on the eye should be carefully monitored by your prescribing eye care practitioner. Corneal edema is more prevalent when the lens is used in high altitudes.

Each Paragon CRT™ and Paragon CRT™ 100 lens is supplied nonsterile in an individual plastic case. The lens is shipped dry; or, wet shipped in Unique-pH™ Multi-Purpose Solution. This solution contains hydroxypropyl guar, a unique wetting and conditioning polymer system, polyethylene glycol, Tetric®*, boric

acid, propylene glycol; and, is preserved with POLYQUAD® (polyquarternium-1) 0.0011% and edetate disodium 0.01%. If the patient has experienced a prior history of allergy to any of these ingredients, remove the lens from the solution and soak the lens 24 hours in unpreserved saline prior to cleaning, disinfecting and dispensing.

* Registered Trademark of BASF corp.
Unique-pH™ is a Trademark of Alcon Laboratories, Inc.

Never reuse the solution. You may store the lens in the unopened container until ready to dispense, up to a maximum of twenty-five (25) days from the Ship Date (see Packing Slip). If the lens is stored for longer periods of time, it should be cleaned and disinfected with a recommended product (see product list in the Lens Care Directions section). Follow the directions on the selected disinfecting solution regarding prolonged storage.

Patient

You should be aware of the following precautions.

Solution Precautions

- Different solutions cannot always be used together, and not all solutions are safe for use with all lenses. Use only recommended solutions with the contact lenses.
- Do not heat the wetting/soaking solution and lenses.
- Always use fresh unexpired lens care solutions.
- Always follow directions in the package inserts of the contact lens solutions used.
- Use only a chemical lens care system. Use of a heat (thermal) lens care system can cause damage by warping your contact lenses.
- Sterile unpreserved solutions, when used, should be discarded after the time specified in the labeling directions.
- Do not use saliva or anything other than the recommended solutions for lubricating or wetting lenses.
- Always keep the lenses completely immersed in the recommended storage solution when the lenses are not being worn (stored).

Handling Precautions

- Always wash and rinse your hands before handling lenses. Do not get cosmetics, lotions, soaps, creams, deodorants, or sprays in your eyes and/or on your lenses. It is best to put on lenses before putting on makeup. Water-base cosmetics are less likely to damage lenses than oil-base products.
- Be certain that your fingers and hands are free of foreign material before touching your contact lenses, as microscopic scratches of the lenses may occur, causing distorted vision and/or injury to the eye.
- Carefully follow the handling, insertion, removal, cleaning, disinfecting, storing and wearing instructions in this booklet and those prescribed by your eye care practitioner.
- Always handle your lenses carefully and avoid dropping them.
- Never use tweezers or other tools to remove your lenses from the lens container unless specifically indicated for that use. Pour your lens into your hand.

- Do not touch the lens with your fingernails.
- To minimize lens warpage during cleaning, the lenses should be cleaned in the palm of your hand rather than between the thumb and fingers.

Lens Wearing Precautions

- CAUTION: Nonsterile. Clean and condition lenses prior to use.
- If the lens sticks (stops moving) on the eye, follow the recommended directions on “Care for a Sticking Lens” in the Instructions For Wearers booklet. The lens should move freely on the eye for the continued health of the eye. If nonmovement of the lens continues, you should immediately consult your eye care practitioner.
- Never wear your contact lenses beyond the period recommended by your eye care practitioner.
- Avoid, if possible, all harmful or irritating vapors and fumes when wearing lenses.
- If aerosol products such as sprays are used while wearing lenses, exercise caution and keep your eyes closed until the spray has settled.

Lens Case Precautions

- Contact lens cases can be a source of bacterial growth. To prevent contamination and to help avoid serious eye injury, always empty and rinse the lens case with fresh, sterile rinsing solution and allow to air dry.
- Lens cases should be replaced at regular intervals as recommended by the lens case manufacturer or eye care practitioner.

Discuss these topics with your eye care practitioner:

- Wear of contact lenses during sporting activities.
- Use of any medication in your eyes.
- Importance of adhering to the recommended follow-up schedule to assure the continuing health of your eyes.
- Informing your doctor (health care practitioner) about being a contact lens wearer.
- Informing your employer of being a contact lens wearer. Some jobs may require the use of eye protection equipment or may require that you not wear contact lenses during work hours.

CONTRAINDICATIONS (REASONS NOT TO USE)

DO NOT USE Paragon CRT™ or Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy when any of the following conditions exist:

- Acute and subacute inflammations or infection of the anterior segment of the eye.
- Any eye disease, injury, or abnormality that affects the cornea, conjunctiva or eyelids.
- Severe insufficiency of tears (dry eyes).
- Corneal hypoesthesia (reduced corneal sensitivity).
- Any systemic disease which may affect the eye or be exacerbated by wearing contact lenses.

- Allergic reactions of ocular surfaces or adnexa which may be induced or exaggerated by wearing contact lenses or use of contact lens solutions.
- Allergy to any ingredient, such as mercury or thimerosal, in a solution which is to be used to care for contact lenses.
- Any active corneal infection (bacterial, fungal or viral).
- If eyes become red or irritated.

WARNINGS

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy are shipped to the practitioner nonsterile. Clean and condition lenses prior to use.

Incorrect use of contact lenses and lens care products can result in serious injury to the eye. It is essential for the patient to follow the eye care practitioner's directions and all labeling instructions for proper use of contact lenses and lens care products. Eye problems, including corneal ulcers, can develop rapidly and lead to loss of vision. If the patient experiences eye discomfort, excessive tearing, vision changes, or redness of the eye, instruct the patient to immediately remove the lenses and do not wear them until instructed to do so by the eye care practitioner. All contact lens wearers must see their eye care practitioner according to the schedule given to them.

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Contact Lens Corneal Refractive Therapy are to be worn overnight with removal during all or part of each following day. Wearing the lenses continuously (extended wear) presents increased risk, which increases with the number of consecutive days that the lenses are worn between removals. Although overnight Contact Lens Corneal Refractive Therapy prescribes only overnight wear with removal during the waking hours, and although the safety risks of intermittent overnight wear may not be as great as with sustained overnight wear, there is still increased risk beginning with the first overnight period.

WARNING

The risk of ulcerative keratitis has been shown to be greater among wearers of extended wear lenses than among wearers of daily wear lenses. The risk among extended wear lens wearers increases with the number of consecutive days that lenses are worn between removals, beginning with the first overnight use. This risk can be reduced by carefully following directions for routine lens care, including cleaning of the lens storage case. Additionally, smoking increases the risk of ulcerative keratitis for contact lens wearers. It is recommended that contact lens wearers see their eye care practitioners twice each year or, if directed, more frequently.

Studies have shown that contact lens wearers who are smokers have a higher incidence of adverse reactions than nonsmokers.

ADVERSE EFFECTS (PROBLEMS AND WHAT TO DO)

Patients should be informed that the following problems may occur.

- Eyes stinging, burning, itching (irritation), or other eye pain
- Comfort is less than when lens was first placed on eye
- Feeling of something in the eye such as a foreign body or scratched area
- Excessive watering (tearing) of the eyes
- Unusual eye secretions
- Redness of the eyes
- Reduced sharpness of vision (poor visual acuity)
- Blurred vision, rainbows, or halos around objects
- Sensitivity to light (photophobia)
- Dry eyes

If the patient notices any of these conditions, the patient should IMMEDIATELY REMOVE THE LENSES. The patient should follow these instructions.

- If the discomfort or problem stops, then look closely at the lens.
- If the lens is in any way damaged, DO NOT put the lens back on your eye. Place the lens in the storage case and contact your eye care practitioner.
- If the lens has dirt, an eyelash, or other foreign objects on it, or the problem stops and the lens appears undamaged, you should thoroughly clean, rinse and disinfect the lens; then reinsert it.
- If the problem continues, you should IMMEDIATELY remove the contact lenses and consult your eye care practitioner.

When any of the above problems occurs, a serious condition such as infection, corneal ulcer, neovascularization, iritis, persistent stromal edema or GPC (giant papillary conjunctivitis) may be present. Instruct the patient to keep the lens off the eye and seek immediate professional identification of the problem and prompt treatment to avoid serious eye damage, including corneal scarring, opacification, blindness or loss of eye.

CLINICAL STUDY DATA

INTRODUCTION

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy may produce a temporary reduction of all or part of your myopia. The amount of reduction will depend on many factors; including the amount of your initial myopia, the elastic characteristics of your eye and the way that the contact lens fits your eye.

DEMOGRAPHIC INFORMATION

A total of 205 subjects (408 eyes) were enrolled and treated comprising of 188 Caucasians, 1 African American, 13 Asian/Pacific Islanders, and 3 Hispanics. Data on 121 subjects (240 eyes) were analyzed following 9 months of treatment. There were 73 female and 48 male patients. The mean age of these subjects was 35 years (ranging from 12 to 56 years).

The completed subjects included adolescents and adults. There were 24 adolescent subjects that completed 9 months of treatment.

EFFECTIVENESS OUTCOMES, (OVERNIGHT CRT™ DESIGN)

The average amount of myopia that can be expected to be corrected is shown in the following table. These values are only averages and some patients can be expected to achieve more or less than these averages.

AVERAGE REDUCTION IN MYOPIA (Diopters) N = 220

ATTEMPTED REDUCTION Myopia (D)	MEAN REDUCTION Myopia (D)*	MEAN RESIDUAL Myopia (D)
-1.00 or less	-0.48	-0.33
-1.25 to -2.00	-1.32	-0.23
-2.25 to -3.00	-2.02	-0.49
-3.25 to -4.00	-3.13	-0.37
-4.25 to -5.00	-4.02	-0.39
-5.25 to -6.00	-4.97	-0.72
-6.25 or above	-4.44	-1.69

*All Efficacy Qualified Patients

Uncorrected Visual Acuity (UCVA)

Post treatment visual acuity was assessed on 159 eyes on whom full correction was attempted and who had been able to achieve 20/20 vision with the best spectacle correction. Fifty-nine percent of these eyes achieved 20/20 or better, 92% achieved 20/40 or better.

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy provided a temporary full reduction in some patients with up to -5.62 diopters of myopia. For patients with greater than -5.75 diopters of myopia only a partial reduction of myopia can be expected. The percentage of patients that can be expected to achieve full or partial temporary refractive reduction is shown in the following table.

PERCENT OF EYES THAT ACHIEVED FULL OR PARTIAL TEMPORARY REDUCTION OF MYOPIA				
INITIAL MYOPIA	FULL REDUCTION ± 0.50 D from Target	UNDER-FULL REDUCTION ± 1.00 D from Target	FINAL V.A. 20/20 or better	FINAL V.A. 20/40 or better
1.00 D or less	75%	100%	71%	71%
-1.25 to -2.00 D	81%	100%	73%	100%
-2.25 to -3.00 D	63%	90%	53%	90%
-3.25 to -4.00 D	64%	88%	64%	88%
-4.25 to -5.00 D	73%	91%	23%	85%
-5.25 to -6.00 D	62%	75%	33%	100%

* N=220 for reduction (all efficacy qualified eyes)

** N=159 for Final VA (only eyes with pretreatment of 20/20 and targeted for emmetropia)

Accuracy

Accuracy of outcome was evaluated by analysis of attempted versus achieved manifest refraction spherical equivalent. At the 9-month visit, 70% (153/220) of 9-month efficacy qualified eyes were within 0.50 D attempted spherical equivalent correction, and 92% (202/220) of eyes were within 1.00 D of attempted correction. In this clinical study the higher the initial myopia the lower the percentage of patients achieved full correction and/or 20/20 vision. The preceding table demonstrates the relationship of initial myopia with treatment success.

There is reference in a published study¹ regarding visual acuity in the “better seeing eye” of a subject as a useful method of estimating functional vision when using both eyes. Of course, very few patients need to rely on the vision from a single eye. When the study subjects were analyzed for only their “better seeing eye”, 67% had 20/20 or better vision, and 94% had 20/40 or better.

Wearing Time

The lenses were used for overnight wear only. They were applied within 30 minutes of sleep and removed within 30 minutes of awakening. The average wearing time was 6 to 8 hours and reflected the expected distribution of night-sleep time. There was no apparent relationship between the number of hours of wear during sleep and the visual acuity outcome for any amount of pretreatment myopia.

¹ Monocular Versus Binocular Visual Acuity as Measures of Vision Impairment and Predictors of Visual Disability. Rubin, et al, Invest Ophthalmol Vis Sci 2000; 41:3327-3334

Regression Of Visual Acuity

The effects of wearing your lenses at night are not permanent and begin to diminish slowly as soon after you remove your lenses. For most wearers this does not present a problem but it is important to realize for some patients their vision at the end of the day may not be fully satisfactory for tasks with high visual demand. For most wearers this will not be an issue. You must consider your own late-in-the-day circumstances to decide if it is a concern. As you will see the higher your original correction needs, the better your treatment must be to assure a full day of uncompromising vision To help you assess the change over time following lens removal, subjects in the clinical study were evaluated at 8, 24, 48, and 72 hours after removal of their lenses following either the six or nine month scheduled visit.

The following table estimates how long after lens removal before your vision regresses to 20/40, which is the lower limit for visual acuity at which you are still allowed to drive without glasses in most states.

To use the table you need to know your original spectacle correction (power of your glasses or contacts). By finding your correction in the third row of the table and looking at the time ranges in the column below it, you will see typical times that persons like yourself might experience.

The top range in your column is for persons whose treatment has been fully successful. As you go down the column you see values for less successful treatments. If you have high corrective needs, discuss this with your eye care practitioner before deciding if CRT is right for you.

		AVERAGE HOURS POST LENS REMOVAL UNTIL REGRESSION TO -1.0 DIOPTER (-20/40)				
		PRETREATMENT MANIFEST REFRACTIVE SPHERICAL EQUIVALENT				
		-1.25 to -2.00 (D)	-2.25 to -3.00 (D)	-3.25 to -4.00 (D)	-4.25 to -5.00 (D)	-5.25 to -6.00 (D)
REFRACTION AT LENS REMOVAL	+0.50	40 to 80+ Hrs	24 to 40 Hrs	18 to 24 Hrs	13 to 15 Hrs	11 to 13 Hrs
	+0.25	30 to 80+ Hrs	21 to 30 Hrs	16 to 21 Hrs	11 to 16 Hrs	10 to 11 Hrs
	Plano	22 to 44 Hrs	16 to 22 Hrs	13 to 18 Hrs	9 to 13 Hrs	7 to 8 Hrs
	-0.25	22 to 29 Hrs	16 to 20 Hrs	11 to 16 Hrs	7 to 11 Hrs	5 to 7 Hrs
	-0.50	18 to 24 Hrs	10 to 18 Hrs	7 to 10 Hrs	6 to 7 Hrs	3 to 5 Hrs
	-0.75	8 to 18 Hrs	5 to 8 Hrs	4 to 5 Hrs	3 to 4 Hrs	2 to 3 Hrs

There are remedies for special circumstances when you find yourself in need of excellent vision at longer times than the success of your treatment offers. One of these is to reinsert your Paragon CRT lenses. You may do this at anytime, for any reason and you will always immediately have optimum vision with the lenses in you eyes. Ask your eye care practitioner about other options available to you in such circumstances.

Effects On Astigmatism

Corneal Refractive Therapy does not predictably affect the magnitude of pretreatment astigmatism.

Either increases or decreases in astigmatism may occur following Contact Lens Corneal Refractive Therapy. Of the eyes that completed the nine-month clinical study, 27% showed no change in refractive astigmatism, 49% showed a decrease of one diopter or less and 1% showed a decrease more than one diopter, while 23% showed an increase of one diopter or less and 1% showed an increase greater than one diopter of refractive astigmatism.

OVERNIGHT WEAR SAFETY SUMMARY

In this trial, 408 eyes of 205 patients were evaluated for safety of paflucocon B and D in nine months overnight wear corneal refractive therapy when treating myopia and myopia with astigmatism. This data is a

reliable indicator of the safety of these materials in an overnight corneal refractive therapy modality. In this study analysis of safety outcomes was performed for BSCVA losses, adverse events, complications, intraocular pressure, biomicroscope exam and symptoms and complaints. The analysis was completed for all eyes that reported at all visits.

Best Spectacle-Corrected Visual Acuity (BSCVA)

There were no losses worse than 20/40 at the 9-month visit. At prior visits eyes measured worse than 20/40 BSCVA were re-tested when clinically appropriate with a contact lens in place. Three eyes found to have worse than 20/40 BSCVA did not have a contact lens applied because of the grade of staining. In the remaining cases the acuity improved to within one line of baseline BSCVA indicating that the acuity loss was due to optical distortion of the corneal.

There were no measures of permanent or persistent loss of 2 or more lines of vision. All eyes with BSCVA losses of 2 or more lines were re-examined at a subsequent visit and found to be within one line of the baseline measure.

Absence of Persistent Corneal Change

This analysis was based on discontinued eyes. Only eyes with 3 or more weeks of treatment were included in this analysis in order to gain a more accurate measure of recovery time. Those eyes with an average treatment of 3 months and scheduled post discontinuation follow-up, had a mean recovery of less than 2 weeks. Of the eyes meeting the discontinuation follow up criteria, 67% (58/86 eyes) returned to their baseline measure in one week or less and 91% (78/86 eyes) recovered in five weeks or less. There is a trend of longer recovery time for higher pretreatment refractive error. The longest recovery period for a single eye was 14 weeks. The remainder of the eyes recovered in 9 weeks or less.

Biomicroscope Exam

Biomicroscope examination of the eye documented 4% mild and less than 1% moderate reports during the study. There were no severe observations reported.

The 28 moderate reports cited included edema (18), staining (9) and injection (1). Seventeen of the 18 reports of edema were at one site located at more than 7000 feet above sea level. All 28 cases resolved without further complication.

Symptoms, Complaints and Discontinuations

Subjects were asked to report symptoms and complaints as part of the dispensing visit and each follow up visit. The symptom of discomfort was reported on average at 32%. Blur and variable vision are reported on average for 17% and 15% respectively. Dryness and scratchiness was reported on average for 11% of eyes. In general, symptoms were noted more often at dispensing and decreased during the study.

Of the 205 subjects who were dispensed lenses, 83 were discontinued. 52 had clinical reasons such as unacceptable vision (44) or lack of comfort (8). 12 Subjects lost interest, 18 were lost to follow-up or missed visits and one subject became pregnant and discontinued at the 6-month follow-up visit.

Adverse Events and Complications

There were no severe adverse events reported in this study. There were no persistent losses or reductions of sight attributable to treatment during the course of this trial. Four study related complications were reported, two rated as mild and two rated as moderate severity. All reported complications resolved with no sequelae.

Summary of Key Safety Variable

Many of the key safety issues evaluated in the study were related to assuring that no long-term detrimental changes to subjects eyes were taking place. In fact no evidence of any permanent changes of any kind were

observed. During treatment however, for a small number of patients, there were some small transient changes in astigmatism. About 1 % of patients had increases in refractive (visual) astigmatism more than one diopter. About 4 % of patients had increases in corneal cylinder (uneven corneal curvature) greater than one diopter but it did not result in more than one diopter of refractive (visual) astigmatism.

In the cases where patients had an increase in astigmatism and opted to leave the study (usually for other reasons) their eyes subsequently returned to their original pretreatment condition with no residual refractive or corneal astigmatism.

Patient Satisfaction

Based on their experience with their habitual correction (spectacles or contact lenses) pretreatment, 81% of subjects rated their overall satisfaction of their vision very good or excellent. At the 6-month and 9-month visits, 82% and 84% of the 110 efficacy qualified subjects rated their overall satisfaction of their unaided vision very good or excellent.

MAINTAINING EFFECTS OF PARAGON CRT™ AND PARAGON CRT™ 100 LENSES FOR CORNEAL REFRACTIVE THERAPY

The long-term wear of Paragon CRT™ and Paragon CRT™ 100 contact lenses for Corneal Refractive Therapy does not eliminate the need to continue wearing contact lenses to produce the reduction in myopia. After the cornea has been changed by wearing these contact lenses, you must continue overnight wear of lenses to maintain the results. Usually the treatment lenses will continue to be the lenses worn after successful treatment. In unusual circumstances, new lenses may be prescribed that are Myopic Reduction Maintenance Lenses or Retainer Lenses. Such Retainer Lenses would be only a slight modification of the patient's Paragon CRT™ or Paragon CRT™ 100 prescription.

The wearing schedule for Paragon CRT™ and Paragon CRT™ 100 contact lenses or Retainer Lenses may vary from the schedule prescribed during treatment. In cases of low pretreatment myopia, the effect may last for more than one day.

Note: To maintain the Contact Lens Corneal Refractive Therapy effect of myopia reduction overnight lens wear must be continued on a prescribed schedule. Failure to do so can affect daily activities (e.g., night driving), visual fluctuations and changes in intended correction.

GLOSSARY

Adnexa	Tissues near to the eye
Adverse Effects	Undesirable effects
Aphakia	Eye that does not have a lens structure
Astigmatism	Eye condition in which one or more surfaces of the cornea or lens has a shape that is not round but more like that of a spoon
Best Spectacle Corrected Visual Acuity	Best vision you can achieve wearing glasses in your exact prescription under optimum viewing conditions
Biomicroscope	An instrument that uses magnification to examine the eye
Contact Lens Corneal Refractive Therapy	Contact lens fitting procedure that results in a reduction of nearsightedness while lenses are worn and for a temporary period after the contact lenses have been removed (typically 1 day if worn overnight)
Contact Lens Sticking	Lack of movement of a contact lens on the cornea
Cornea	The clear, bubble-like structure on the front of the eye, where light first enters the eye
Corneal Abrasion	Loss of cells on the corneal surface due to mechanical trauma
Corneal Edema	Accumulation of fluid in the cornea resulting in swelling
Corneal Hypoesthesia	Partial loss of sensitivity to touch in the cornea
Corneal Staining	Bright areas on the cornea where dye collects and which indicates an abrasion or other disturbance of the cornea
Corneal Ulcer	Small area of tissue loss in the cornea
CRT	Corneal Refractive Therapy
Disinfection	Destruction of bacteria and viruses but not some spores
Diopter	Unit of power for glasses or contact lenses
Enzyming Contact Lenses	Placing contact lenses in a solution that contains an enzyme that dissolves proteins on the surface of the lens
Iritis	Infection of the iris or colored portion of the eye
Lacrimal Secretion	Tearing
Manifest Refraction Spherical Equivalent	A measure of vision correction requirements (in diopters), which combines your myopia and your astigmatism

Myopia	Medical term for nearsightedness
Myopic Reduction Maintenance Lens	A modification of the Corneal Refractive Therapy contact lens design in which the central portion of the lens applies just enough pressure to the cornea to maintain the corneal flattening achieved but with no additional corneal flattening. Such a lens is usually not needed with Paragon CRT™ and Paragon CRT™ 100 since the treatment lens performs this function.
Neovascularization	New blood vessel growth in the cornea
Orthokeratology	Predecessor to Contact Lens Corneal Refractive Therapy using a series of lenses to achieve a temporary reduction in myopia
Refract	Bending of light in order to make it focus
Refractive Anomalies	Eye conditions leading to blurred vision including nearsightedness, farsightedness and astigmatism
Retainer Lens	Another name for the Myopic Reduction Maintenance Lens
Retina	Structure at the back of the eye that receives the light image
Rewetting Contact Lenses	Placing a solution in the eye while contact lenses are worn that acts as an artificial tear to wet the lens
Sticking Lens	Lens on the cornea that does not move

Manufacturer:

Paragon Vision Sciences
 947 E. Impala Avenue
 Mesa, Arizona 85204-6619

1-800-528-8279
 1-480-892-7602
 1-480-926-7369 FAX

PROFESSIONAL FITTING AND INFORMATION GUIDE

Paragon CRT™

Manufactured in
Paragon HDS® (paflucocon B)

or

Paragon CRT™ 100

Manufactured in
Paragon HDS® 100 (paflucocon D)

**RIGID GAS PERMEABLE
CONTACT LENSES
FOR
CONTACT LENS CORNEAL REFRACTIVE THERAPY**

OVERNIGHT WEAR

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INTRODUCTION

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy produce a temporary reduction of myopia by reversibly altering the curvature of the cornea. The Paragon CRT™ and CRT™ 100 contact lenses are manufactured from Paragon HDS® and Paragon HDS® 100 respectively. A slight reduction of the curvature of the cornea can reduce the excessive focusing power of the myopic eye. If the amount of corneal reshaping is precisely controlled as is the objective of the CRT™ lens design, it is possible to bring the eye into correct focus and completely compensate for myopia. After the contact lens is removed, the cornea retains its altered shape for all or most of one's waking hours. The lens is designed to be worn overnight with removal during following day. The Paragon CRT™ and Paragon CRT™ 100 lenses must be worn at night on a regular schedule to maintain the corneal reshaping, or the pre-treatment myopia will return.

PRODUCT DESCRIPTION

Paragon CRT™ contact lenses are manufactured from Paragon HDS® (paflucocon B) and Paragon CRT™ 100 contact lenses are manufactured from Paragon HDS® 100 (paflucocon D). The lenses are designed to have congruent anterior and posterior surfaces each consisting of three zones:

1. The central spherical zone.
2. A mathematically designed sigmoidal corneal proximity "Return Zone".
3. A non-curving "Landing Zone".

The lens design also includes a convex elliptical edge terminus smoothly joining the anterior and posterior surfaces.

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy are to be worn overnight with removal during all or part of each following day. Both materials are thermoset fluorosilicone acrylate copolymer derived primarily from siloxane acrylate, trifluoroethyl methacrylate and methylmethacrylate with a water content of less than 1%. These contact lenses for Corneal Refractive Therapy are available as lathe cut firm contact lenses with blue and green tints. The blue tinted lens contains D&C Green No. 6. The green lens contains D&C Green No. 6 and Perox Yellow No. 9.

Detailed Description

Generally the central base curve is chosen to be flatter than the curvature of the central cornea by an amount such that if the cornea were to take on this lens curvature a significant reduction in myopia would be expected. The lens is fitted to allow this zone to contact the central corneal apex. Until such time as the cornea has taken on the curvature of this zone of the lens, it is expected that this zone will gradually diverge from the corneal curvature, thus rising away from it with a maximum deviation at the edge of the zone.

The first zone peripheral to the central base curve, the Return Zone, has a sigmoidal shape that smoothly joins this zone to the central zone and the third element. The sigmoid will be mathematically designed to return the posterior lens surface to closer proximity to the cornea than it would have had if the geometry of the central base curve were continued through this zone. This zone is conveniently described by referring to the width and depth of a rectangle which would enclose a cross section through the Return Zone (see drawing page 4). The width of the zone is fixed at 1 mm while the fitter determines the Return Zone Depth (RZD).

The third element, referred to as the Landing Zone, has the form of a truncated cone and is concentric to the Return Zone. This element is intended to be tangential to the cornea at a specified diameter but not initially in contact with it. Since the Landing Zone naturally deviates from the cornea peripheral to the point of tangential correspondence, there is no need for an additional peripheral curve to give "edge lift". Fluid forces arising from the approximation of Landing Zone and cornea participate with other factors in stabilizing the lens orientation on the eye. The Landing Zone is characterized by the angle that its cross section makes with the horizontal and by its chord diameter; both parameters are selected by the fitter.

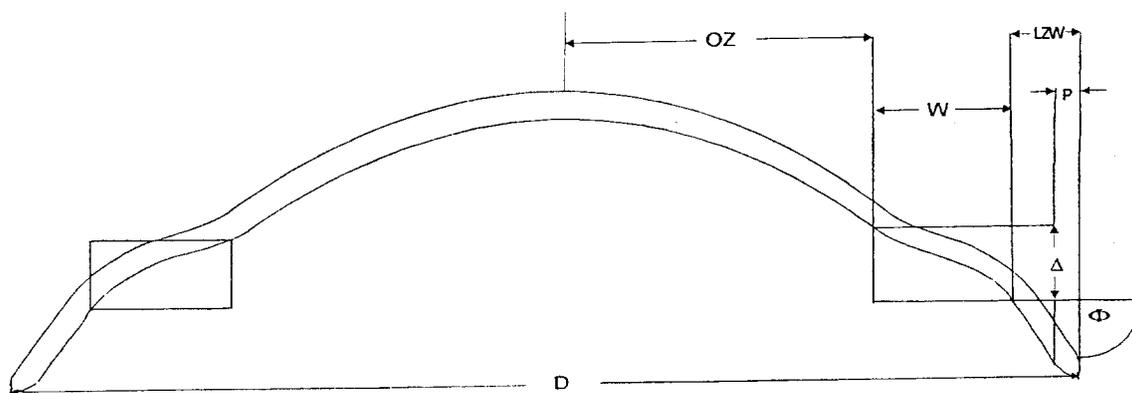
The last and most peripheral element, the edge terminus, deviates from the uncurved Landing Zone and curves away from the underlying cornea to merge with the anterior surface thereby forming the edge of the lens. This zone follows the prescribed shape of a convex ellipse thereby "rolling" the lens surface away from the cornea promoting comfort. This terminus is not to be confused with a "peripheral curve" frequently found in RGP designs. Such peripheral curves are concave toward the cornea with a radius specified to maintain nearly parallel alignment with it. Such lenses also have a separate edge contour, which is created by grinding and polishing the edge but its shape is typically arbitrarily derived by the nature of the processes and lens edge thickness. The CRT™ edge is pre-specified and equivalent in all lenses regardless of their other parameters.

Paragon CRT™ and Paragon CRT™ 100 contact lenses are used to temporarily reshape the cornea to change its refractive power with a resultant reduction in the pretreatment refractive error. Corneal tissue is redistributed without significant alteration of its physiology. The change in shape is the result of gentle mechanical pressure from the flattened central zone of the lens augmented by the availability of unoccupied volume beneath the Return and Landing Zones of the lens. After wearing of the lens, the cornea typically demonstrates an increased radius of curvature in the central area and a decreased radius of curvature in the paracentral area allowed by the clearance within the outer portion of the optic zone and the Return Zone of the lens.

Although rarely required, the anterior central curve is selected to provide any necessary optical power to correct residual refractive error not corrected by the optical and mechanical effect of the posterior base curve and the tear lens formed between it and the cornea. Typically this surface and the other anterior surfaces exactly parallel their posterior counterparts. Lens thicknesses in the three zones are not dependent on lens parameters but have been selected to maximize oxygen transmission, stability and comfort.

LENS PARAMETERS AVAILABLE (See drawing)

Overall Diameter (D)	9.5 to 12.0 mm
Central Base Curve Radius	6.50 to 10.50 mm
Optical Zone Semi Chord (OZ)	2.50 to 3.50 mm
Return Zone Width (w)	0.75 to 1.5 mm
Return Zone Depth (Δ)	to 1.0 mm
Landing Zone Radius	to infinity
Landing Zone Angle (ϕ)	-25° to -50°
Landing Zone Width (LZW)	0.5 to 2.75 mm
Edge Terminus Width (P)	0.04 mm to LZW
Dioptric Powers	-2.00 to +2.00 Diopters



ATTRIBUTES OF THE PARAGON CRT™ LENS (paflucocon B)

Refractive Index	1.449 (Nd at 25°C)
Luminous Transmittance ⁺ (Blue)	95%
Wetting Angle (Receding Angle)	14.7°
Specific Gravity	1.16
Hardness (Shore D)	84
Water Content	<1%

+ Determination of the Spectral and Luminous Transmittance, ISO 8599:1994

ATTRIBUTES OF THE PARAGON CRT™ 100 LENS (paflucocon D)

Refractive Index	1.442 (Nd at 25°C)
Luminous Transmittance ⁺ (Green)	95%
Wetting Angle (Receding Angle)	42°
Specific Gravity	1.10
Hardness (Shore D)	79
Water Content	<1%

+ Determination of the Spectral and Luminous Transmittance, ISO 8599:1994

OXYGEN PERMEABILITY - CRT™ LENS DESIGN							
Material	Power	Oxygen Permeability (Revised Fatt Method*) Dk x 10 ⁻¹¹	Oxygen Permeability (ISO Method**) Dk x 10 ⁻¹¹	Center Thickness (mm)	Harmonic Mean Thickness*** (mm)	Oxygen Transmissibility (Fatt) Dk/l x 10 ⁹	Oxygen Transmissibility (ISO) Dk/l x 10 ⁹
HDS 100	-2.00	145	100	0.145	0.163	89	61
HDS 100	Plano	145	100	0.163	0.166	87	60
HDS 100	+2.00	145	100	0.180	0.168	86	60
HDS	-2.00	58	40	0.124	0.148	39	27
HDS	Plano	58	40	0.147	0.149	39	27
HDS	+2.00	58	40	0.169	0.161	36	25

* (cm²/sec) (mL O₂) / (mL x mm Hg) Revised Method of I. Fatt

** (cm²/sec) (mL O₂) / (mL x mm Hg) ISO/ANSI Method, ISO 9913-1

*** Sammons, W.A., "Contact Lens Thickness and All That", The Optician, 12/05/80.

ACTIONS

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy produce a temporary reduction of myopia by changing the shape (flattening) of the cornea, which is elastic in nature. Slightly reducing the curvature of the cornea reduces the excessive focusing power of the myopic eye, and if the amount of corneal flattening is properly controlled, it is possible to bring the eye into correct focus and completely compensate for myopia.

Contact lenses rest directly on the corneal tear layer and can gently influence the corneal shape. Regular contact lenses are designed to cause little or no effect but Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy are designed to purposely flatten the shape of the cornea by applying gentle pressure to the center of the cornea during sleep.

After the contact lens is removed, the cornea retains its altered shape for all or most of one's waking hours. The lenses are designed to be worn overnight with removal during the following day. The CRT™ lens design must be worn at night on a regular schedule to maintain the corneal reshaping, or the myopia will revert to the pretreatment level.

INDICATIONS (USES)

Paragon CRT™ (paflucocon B) and Paragon CRT™ 100 (paflucocon D) Rigid Gas Permeable Contact Lenses for Corneal Refractive Therapy are indicated for use in the reduction of myopic refractive error in nondiseased eyes. The lenses are indicated for overnight wear in a Corneal Refractive Therapy fitting program for the temporary reduction of myopia up to 6.00 diopters in eyes with astigmatism up to 1.75 diopters. The lenses may be disinfected using only a chemical disinfection system.

Note: To maintain the Corneal Refractive Therapy effect of myopia reduction lens wear must be continued on a prescribed wearing schedule. Failure to do so can affect daily activities (e.g., night driving), visual fluctuations and changes in intended correction.

CONTRAINDICATIONS (REASONS NOT TO USE)

Reference the so entitled section found in the enclosed Package Insert.

WARNINGS

Reference the so entitled section found in the enclosed Package Insert.

ADVERSE EFFECTS (PROBLEMS AND WHAT TO DO)

Reference the so entitled section found in the enclosed Package Insert.

PRECAUTIONS

Reference the so entitled section found in the enclosed Package Insert.

SELECTION OF PATIENTS

Patients are selected who have a demonstrated need and desire for a refractive reduction by Contact Lens Corneal Refractive Therapy with rigid gas permeable contact lenses and who do not have any of the contraindications for contact lenses previously described. Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy are indicated for myopic patients who desire not to wear vision correction devices during the daytime hours, but still require the ability to see clearly during that time.

Paragon CRT™ and Paragon CRT™ 100 contact lenses for overnight Contact Lens Corneal Refractive Therapy are primarily intended for patients who are within the following parameters.

Refractive Error	-0.5 to -5.50 diopters with up to -1.75 diopters of astigmatism
Keratometry	37 to 52 diopters
Visual Acuity	20/20 to 20/1000

FITTING CONCEPT

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy are intended to be fitted so as to flatten the central cornea and thereby reduce myopia. This goal is accomplished by the lens design and the manner in which the lens is fitted. The goal in fitting is a well-centered lens having a base curve that is flatter than the flattest meridian of the cornea by at least the attempted treatment power in that meridian. A well-fit lens will have proper sagittal depth to prevent z-axis tilt and achieve centration over the corneal apex. A well-fit lens will also have a proper sagittal depth profile to prevent bearing at the Return Zone – Landing Zone junction or heavy bearing in the periphery of the lens. The lens will demonstrate central corneal applanation, paracentral lens-cornea clearance and Landing Zone-cornea tangential correspondence.

The Paragon CRT™ and Paragon CRT™ 100 Contact Lens Corneal Refractive Therapy fitting system utilizes the following fixed parameters.

- Optic Zone = 6.0 mm
- Return Zone Width = 1.0 mm
- Center thickness = 0.15 mm + 0.01

The optic zone and Return Zone Width may be changed in rare circumstances by means of a special order. Smaller optic zones may be appropriate in unusually small corneal diameters and in the case of target reductions greater than 5.00 diopters. For corneal diameters greater than 10.8 mm and target improvements less than 5.00 diopters, the standard parameters are recommended.

There are four primary fitting objectives:

- Provide a base curve that will reshape the underlying cornea to a resultant curvature that produces emmetropia or low hyperopia.
- Provide an initial clearance at the point of tangential correspondence of the Landing Zone and peripheral cornea that will allow the corneal apex to retreat approximately 6 microns per diopter of treatment.
- Provide a Landing Zone that has the proper angle to provide a midpoint of tangency to the underlying cornea near the midpoint of the zone itself.
- Provide a lens diameter that, in conjunction with the Landing Zone Angle, provides optimum centration.

The Paragon CRT™ and Paragon CRT™ 100 contact lenses in conjunction with the following fitting procedure can fulfill these objectives.

Predicting Lens Results

Clinical studies have not established reliable methods to predict which patients will achieve the greatest corneal flattening with these contact lenses for Corneal Refractive Therapy.

Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy may produce a temporary reduction of all or part of a patient's myopia. The amount of reduction will depend on many factors including the amount of myopia, the elastic characteristics of the eye and the way that the contact lenses are fitted. Average amounts of reduction have been established by clinical studies but the reduction for an individual patient may vary significantly from the averages.

CLINICAL STUDY DATA

Reference the so entitled section found in the enclosed Package Insert.

RISK ANALYSIS

There is a small risk involved when any contact lens is worn. It is not expected that Paragon CRT™ or Paragon CRT™ 100 contact lenses for orthokeratology will provide a risk that is greater than other rigid gas permeable contact lenses.

The two most common side effects, which occur in rigid contact lens wearers are corneal edema and corneal staining. It is anticipated that these two side effects will also occur in some wearers of Paragon CRT™ or Paragon CRT™ 100 contact lenses for orthokeratology. Other side effects, which sometimes occur in all hard contact lens wearers are pain, redness, tearing, irritation, discharge, abrasion of the eye or distortion of vision. These are usually temporary conditions if the contact lenses are removed promptly and professional care is obtained. When overnight orthokeratology lenses dislocate during sleep, transient distorted vision may occur the following

morning after removal of the lenses. This distortion may not be immediately corrected with spectacle lenses. The duration of distorted vision would rarely be greater than the duration of the daily visual improvement normally achieved with the lenses.

In rare instances, there may occur permanent corneal scarring, decreased vision, infections of the eye, corneal ulcer, iritis, or neovascularization. The occurrence of these side effects should be minimized or completely eliminated if proper patient control is exercised. Patients should be instructed to remove the contact lenses if any abnormal signs are present. Patients should be instructed never to wear their contact lenses while in the presence of noxious substances. Patients should be instructed in the importance and necessity of returning for all follow-up visits required by the eye care practitioner.

FITTING PARAGON CRT™ AND PARAGON CRT™ 100 CONTACT LENSES FOR CORNEAL REFRACTIVE THERAPY

Note: Contact lenses for Corneal Refractive Therapy should be fitted only by a trained and certified contact lens fitter.

Fitting Option I

Slide Rule Calculator

Utilizing a provided slide rule calculator, practitioners will cross-reference a patient's flat Keratometric value and their vertexed Manifest Refraction Sphere (MRS) and thereby will determine a suggested diagnostic lens from an in-office diagnostic/dispensing lens system.

The slide rule will suggest a specific lens including the parameters of Base Curve, Return Zone Depth (RZD) and Landing Zone Angle (LZA) for initial evaluation by the practitioner. Based on the results of fluorescein pattern evaluation of the suggested lens, the practitioner may move to other lenses in the dispensing system to determine the best fit lens for dispensing to the patient.

The slide rule will calculate the Base Curve for 0.00 Target as follows:

Calculation Treatment Base Curve

Flat K (in diopters)
 - MRS
- 0.50 Adjustment
 = Base Curve

<u>Calculated Base Curve</u>	
43.75	FK
+ 0.00	TGT
43.75	
- 4.00	MRS (Vertexed)
39.75	
- 0.50	Rx = +0.50
39.25	Base Curve

In the above example, the slide rule will suggest the following lens from the diagnostic/dispensing set for initial evaluation.

Choose Trial Lens

Look for this lens in the Trial Set and evaluate for "Dispensability".

39.25 BC 0.550 RZD - 33 LZA

39.25 (8.60)B.C.

Sagittal Depth ↑ Deeper ↓ Shallower	Increased sag depth Decreased angle	Increased sag depth Same angle	Increased sag depth Increased angle
	Same RZD Decreased angle	Initial Lens 39.25 .550 RZD -33 angle	Same RZD Increased angle
	Decreased sag depth Decreased angle	Decreased sag depth Same Angle	Increased sag depth Increased angle
	- Angle Degree +		

39.25 (8.60)B.C.

Sagittal Depth ↑ Deeper ↓ Shallower	39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
	39.25 .550 RZD -32 angle	Initial Lens 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
	39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle
	- Angle Degree +		

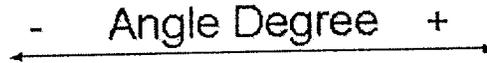
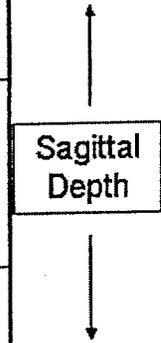
39.25 (8.60)B.C.

With shallower
Lens in place:

1. Does it still center?
2. If Yes....
3. Evaluate Edge Lift



39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	<u>Initial Lens</u> 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle



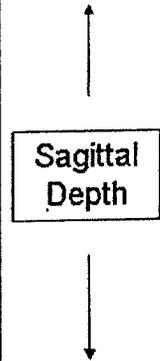
39.25 (8.60)B.C.

With Indicated
Lens in place:

1. If No....
2. Return to Initial lens and evaluate edge lift



39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	<u>Initial Lens</u> 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 ↑ .525 RZD -33 angle	39.25 .525 RZD -34 angle

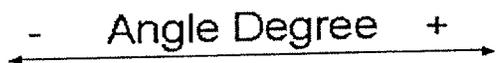
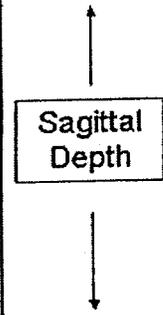


39.25 (8.60)B.C.

With Initial Lens
in place:
Evaluate Edge lift



39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	Initial Lens 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle



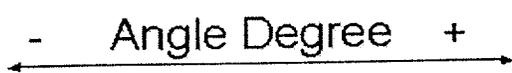
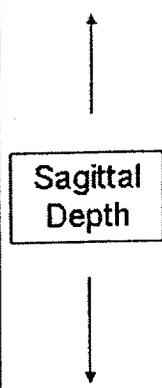
39.25 (8.60)B.C.

With Initial Lens
Lens in place:

1. Does it center?
2. If No....
3. Increase RZD



39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	Initial Lens 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle



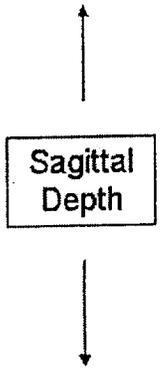
39.25 (8.60)B.C.

With Lens in place:

1. Does it center?
2. If Yes....
3. Evaluate Edge Lift



39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	<u>Initial Lens</u> 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle



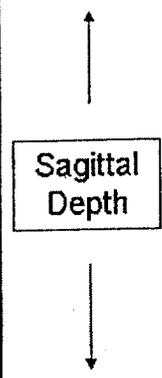
39.25 (8.60)B.C.

With Increased RZD
Lens in place:

1. Does it center?
2. If No....
3. Increase Angle



39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	<u>Initial Lens</u> 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle



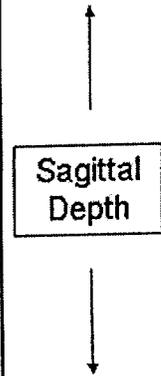
39.25 (8.60)B.C.

With Increased angle lens in place:

1. Does it center?
2. Yes
3. Dispense



39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	<u>Initial Lens</u> 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle



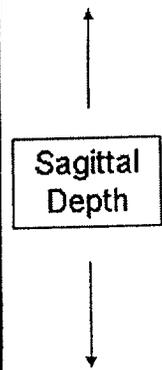
- Angle Degree +

39.25 (8.60)B.C.

With Lens in place:

1. Does it center?
2. If No....
3. Custom Lens

39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	<u>Initial Lens</u> 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle



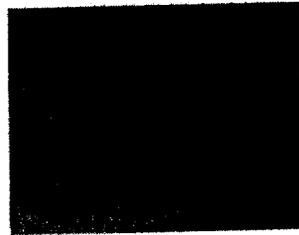
- Angle Degree +

96

Evaluate Edge Lift

When you have found the shallowest lens that centers- evaluate edge lift.

With shallowest RZD lens that centers-
Evaluate Edge Lift



Excessive Edge Lift-
Increase angle



Good Edge Lift
Dispense



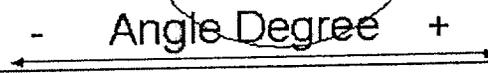
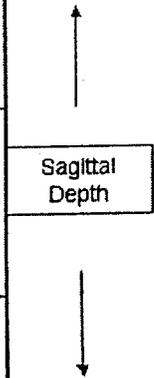
Insufficient Edge Lift
Decrease edge lift

39.25 (8.60)B.C.



1. Excessive Edge Lift?
2. If Yes....
3. Increase Angle

39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	<u>Initial Lens</u> 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle



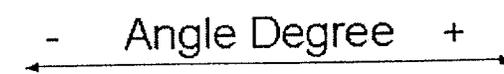
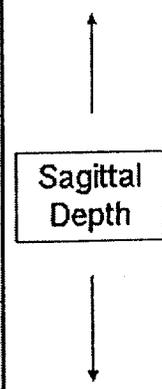
Shallowest RZD with centration

39.25 (8.60)B.C.

1. Good Edge Lift?
2. If Yes...
3. Dispense



39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	<u>Initial Lens</u> 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle

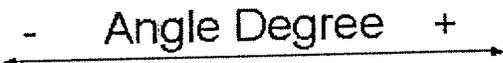
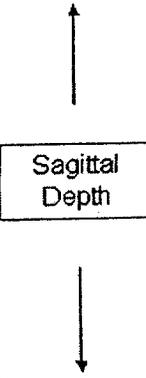


96

39.25 (8.60)B.C.



39.25 .575 RZD -32 angle	39.25 .575 RZD -33 angle	39.25 .575 RZD -34 angle
39.25 .550 RZD -32 angle	<u>Initial Lens</u> 39.25 .550 RZD -33 angle	39.25 .550 RZD -34 angle
39.25 .525 RZD -32 angle	39.25 .525 RZD -33 angle	39.25 .525 RZD -34 angle



1. Insufficient Edge Lift?
2. If Yes....
3. Decrease Angle

gr

Dispensability

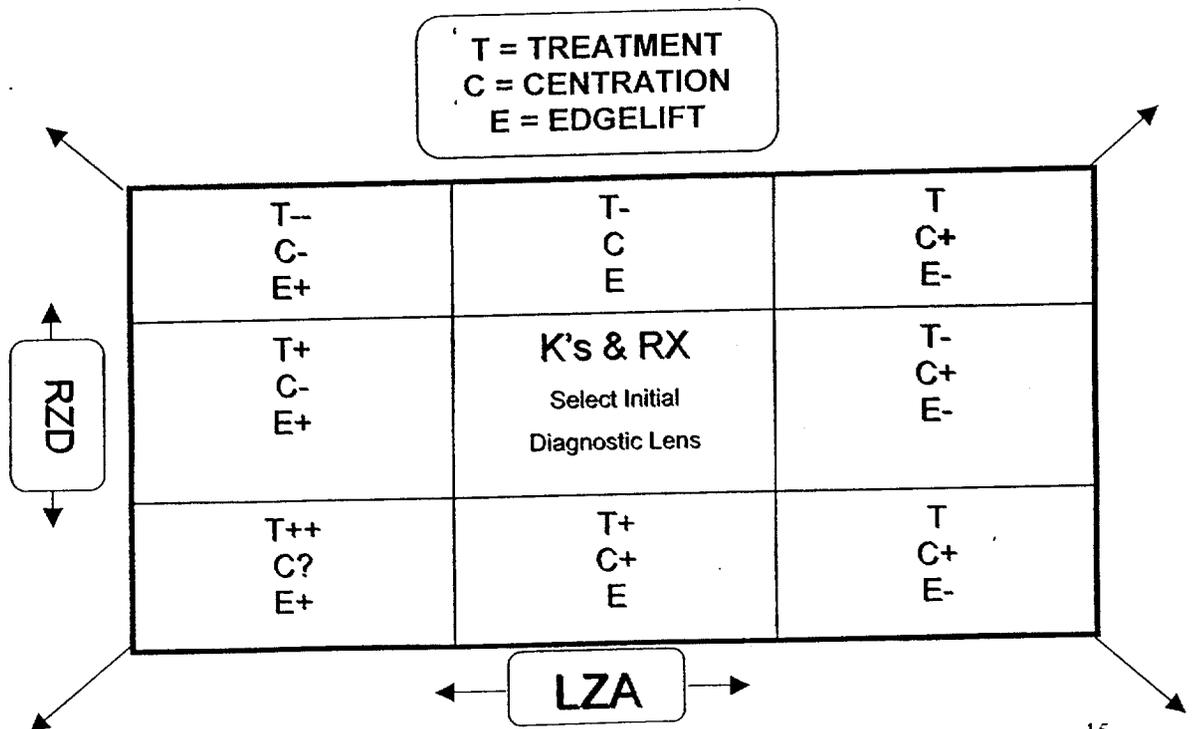
The lens should present with:

- 4+ mm Treatment Zone (*see below illustration*)
- Centered, limbus-to-limbus and in relation to pupil (*see below illustration*)
- Acceptable Edge Lift (*note A, B, C arrows in below illustration*)
- More than "Just Landed" Appearance; "JL" to moderately heavy landing is acceptable
- Fluorescein reveals a "Black, Green, Black, Green" pooling pattern



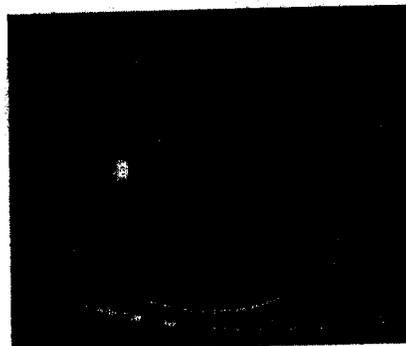
- A: minimal edge lift, however, acceptable
 B: more edge lift than necessary, but OK as is
 C: optimum edge lift appearance

The Diagnostic/Dispensing system suggested an initial lens and based on observation, the clinician moves to centration, additional treatment and appropriate edge lift by moving to other lenses, if necessary, within the same Base Curve range, based on the following parameter options.



The lens is NOT dispensable when any of these problems exist:

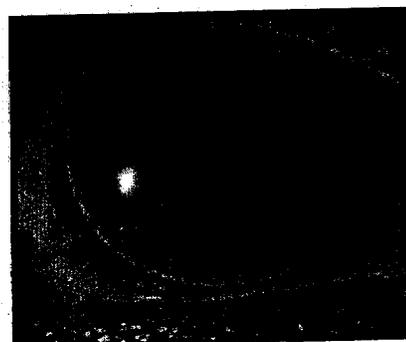
- Small or NO treatment zone
- Decentered lens
- Minimal edge lift or seemingly tight periphery (LZA is excessive)



Small Treatment Zone resulting from sag too deep.



No Treatment Zone; Excessive pooling of Fluorescein centrally resulting from sag too deep.



Oval Treatment Zone with "Just Landed" appearance resulting from sag too deep; if zone is circular, both major

How To Fix Fitting Problems

Small or No Treatment Zone

First option
Second option
Third option

decrease LZA
flatten Base Curve
decrease RZD

Decentered Lens

If inferior & nasal

decrease LZA

If inferior & centered (or slightly temporal)

decrease LZA
and if remains decentered, increase RZD

If superior & nasal

decrease LZA
and if remains decentered, increase RZD

If superior & centered laterally **

increase RZD

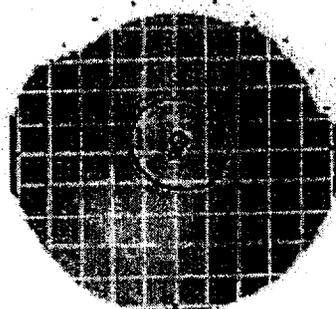
Minimal edge lift or seemingly tight periphery (LZA is excessively "heel down") **

First option

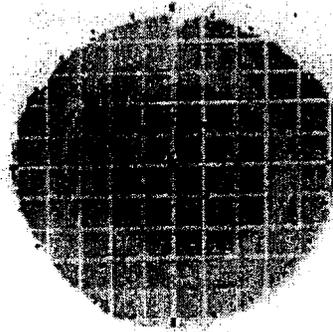
decrease LZA

** "Z" Axis tilt may occur if the LZA is 2 degrees too great. Sometimes this will cause a superiorly decentered lens showing excessive fluorescein pooling from the RZD all the way to the edge of the lens. Decrease the LZA by 2 degrees and increase the RZD (25 to 50 microns) if this occurs.

WELL-CENTERED LENS BEFORE & AFTER



Axial Map

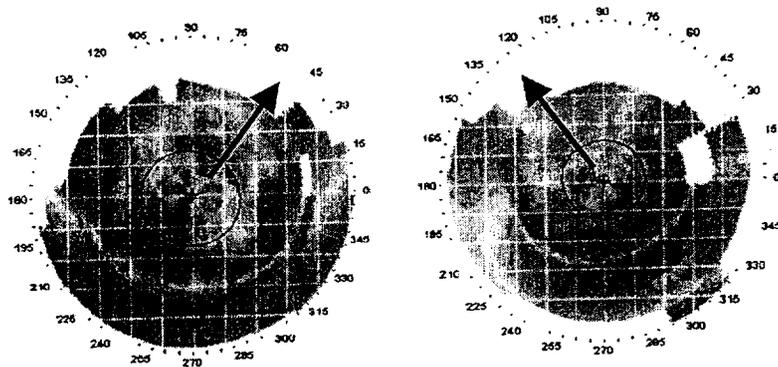


Axial Map

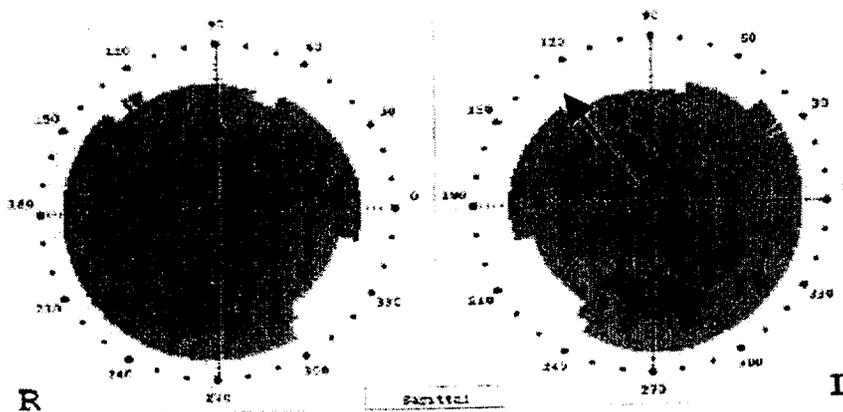
DECENTERED LENS EXAMPLES



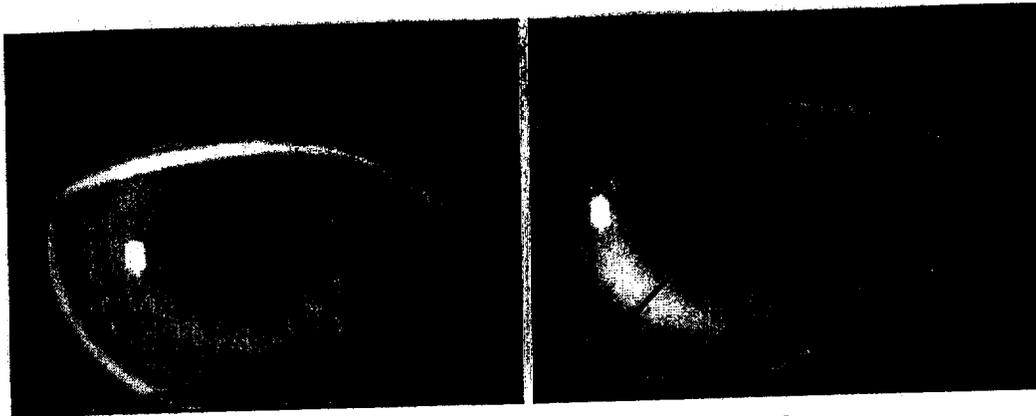
Superiorly Riding (with oval treatment zone)



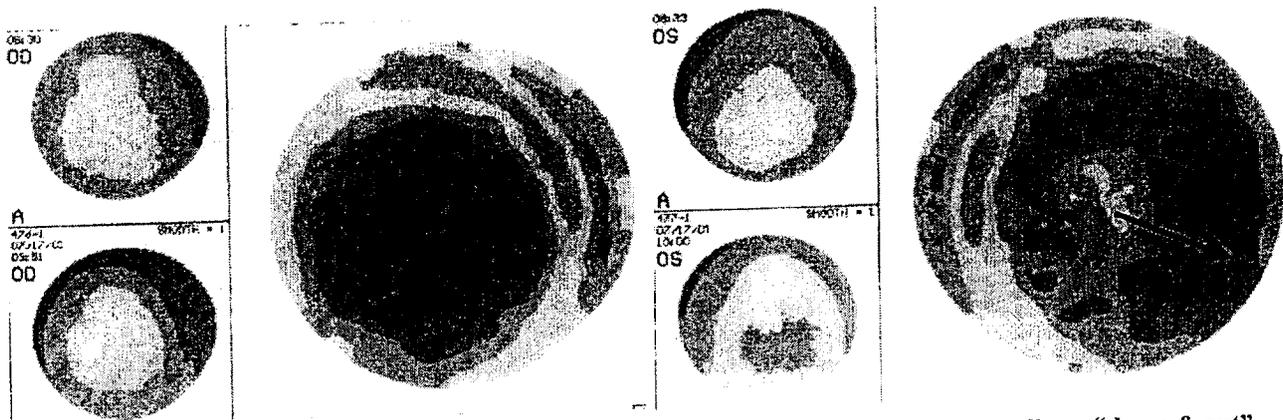
Both lenses are riding superiorly and slightly nasal, confirmed by topography.
 Note the inferior and steep "smile" (epithelium being pushed inferiorly from the high riding lens) and the "up and in" displacement of the steeper central zone (central island).



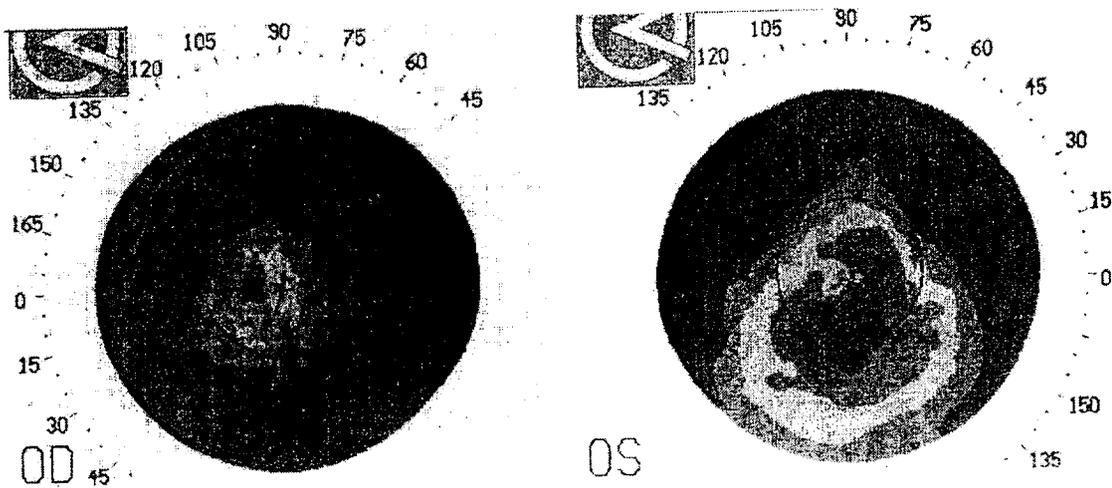
The lens in the right eye is decentered slightly superiorly, whereas the left lens not only rides high, but slightly nasally.



The lens are riding low and nasally decentered.



These topography "difference maps" confirm that lenses are riding infero-temporally or "down & out".



The right topography map confirms a low riding lens that is slightly temporal or "down & out". The left map appearance shows this lens is primarily low riding. Both topographies show "central islands" or untreated areas beneath the retainer lenses. Central islands often result from the lens sag been too deep; they may also occur in a well-centered lens or a high riding lens (with the steep zones centered or superiorly located, respectively).

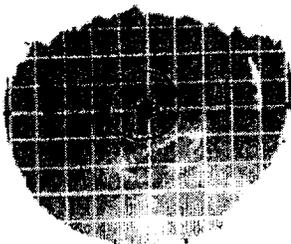
A decentered lens only makes the corneal topography more misshapen if lens parameters remain unchanged (top photos). After increasing the RZD to achieve better centration, it may take months for the cornea to right itself (bottom photos). It is prudent to change lens parameters immediately to eliminate this form of corneal distortion. Do not expect a decentered lens to get better on it's own accord.

Power: 42.9D
 (7.87 mm)
 From vertex:
 Dist 0.00 mm
 S-merid 0°

SimK Values:
 44.50D @110
 42.00D @20

OD

08/02/01
 11:30 AM



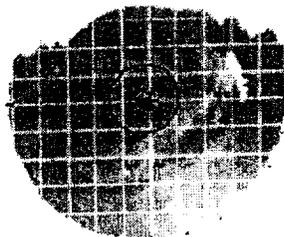
Axial Map

Power: 43.4D
 (7.78 mm)
 From vertex:
 Dist 0.00 mm
 S-merid 0°

SimK Values:
 44.87D @120
 42.62D @30

OD

08/23/01
 11:15 AM



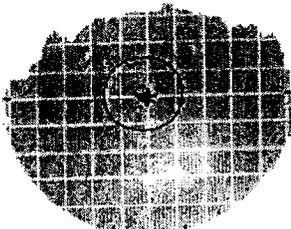
Axial Map

Power: 43.8D
 (7.71 mm)
 From vertex:
 Dist 0.00 mm
 S-merid 0°

SimK Values:
 44.00D @120
 43.00D @30

OD

09/27/01



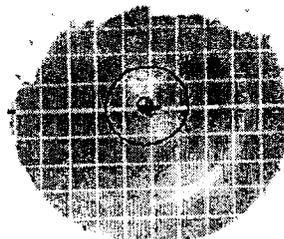
Axial Map

Power: 44.5D
 (7.58 mm)
 From vertex:
 Dist 0.00 mm
 S-merid 0°

SimK Values:
 44.25D @100
 42.50D @15

OD

10/22/01



Axial Map

LZA Assessment Using "Heel Up" and "Heel Down" Concept

Significant edge lift may be seen when the LZA has too low an angle and will present with a "sealed off" periphery when the LZA is too steep.



Other Fitting & Problem Solving Concepts

What to do for "Under Treatment"

1) If,

Centered (confirmed with topography, if available)
Treatment zone is round and 5+mm in diameter
Adequate edge lift
PLANO over-refract on the lenses
No induced astigmatism in the MR

and

Have - 0.50 residual myopia

Have - 1.00 residual myopia

Have - 1.50 residual myopia

then

flatten base curve by 0.50D to 0.75 D

flatten base curve by 0.75D to 1.00D

reduce LZA 1 degree

2) If,

Centered (confirmed with topography, if available)
Treatment zone is round and 5+mm in diameter
Lack edge lift
PLANO over-refract on the lenses
No induced astigmatism in the MR

and

Have - 1.00 or less residual myopia

Have - 1.50 residual myopia

then

reduce LZA 1 degree, and
increase BC by no more than 0.50D

reduce LZA by 1 degree

3) If,

Centered (confirmed with topography, if available)
Treatment zone is round and 5+mm in diameter
Adequate Edge Lift

PLANO over-refract on the lenses
No induced astigmatism in the MR,
but have **UNCORRECTED** residual cylinder power

and
Myopia is fully treated
-or-
Have - 1.00 or less residual myopia
-or-
Have - 1.50 residual myopia

then

Call your Paragon Clinical Specialist; either the LZA, RZD, BC will need to be reduced/flattened or a combination of these processes to reduce sag will be necessary.

What to do for "Over Treatment"

If,
Centered (confirmed with topography, if available)
Treatment zone is round and 5+mm in diameter
Adequate edge lift
PLANO over-refract on the lenses
No induced astigmatism in the MR

and
Spherical power is over-corrected

then
increase the sag by steepening BC or the RZD
using a 1:1 relationship per diopter in BC, or
approximately 25 microns in RZD per 1.50 diopters

What to do if "Cylinder over-refraction" on the lenses

- 1) First, ascertain if lens base curve is warped
- 2) If,
No warpage present
Lenses are centered (confirmed with topography, if available)

then

source is lenticular astigmatism

Concerning Lens Appearance

If,
The Lens Sag Is Too Great (deep)

the lens will
ride low
undertreat
seal off peripherally
be difficult to remove
ride nasally (if significantly too great/deep)
have Z-axis tilt (if significantly too great/deep)

If,
The Lens Sag Is Too Little (shallow)

the lens will
ride high
ride temporally
have Z-axis tilt (if significantly too great/deep)
create secondary corneal SPK
have significant edge lift

105

Approximate Adjustments in "Sag"

The RZD is adjustable in 25 micron steps.

Base curve changes of 0.50 D represent approximately 7 micron changes.

An LZA reduction of 1 degree and an increase in RZD by 25 microns represent "Relative Sag," and vice versa. Therefore, changes in RZD and LZA in opposite directions are considered a 1:1 relationship.

Fitting Option II

24-Lens Diagnostic Set – Calculation Method

The 24-lens diagnostic set with manual computation forms allows for final prescription determination using clinical data and diagnostic lens evaluation. The fitting set requires calculation based on the following mathematical foundation.

- Manifest refraction sphere in minus cylinder form is adjusted for 12 mm vertex distance.
- Base curve radius is based on attempted treatment plus 0.50 D taken from the pretreatment flat K value.
- Pretreatment clearance at tangential touch diameter is 6 microns per diopter of attempted treatment.
- RZD is the difference in sagittal depth of the lens that "Just Lands" having an LZA of -34 degrees and the depth of the prescribed base curve at a chord of 6 mm.
- RZD is then adjusted an average of 18 microns for each 1 degree of LZA variance from -34 degrees.
- OAD is 90% HVID, rounded to the nearest 0.5 mm.
- Base curve is rounded to nearest 0.1 mm.
- RZD is rounded to nearest 25 microns.

Fitting Step 1

Enter the following clinical data into the computation forms (Worksheet).

1. Flat keratometry measurement in diopters
2. Manifest refraction sphere in minus cylinder form
3. Target sphere in diopters (emmetropia = 0)
4. Measured HVID in millimeters

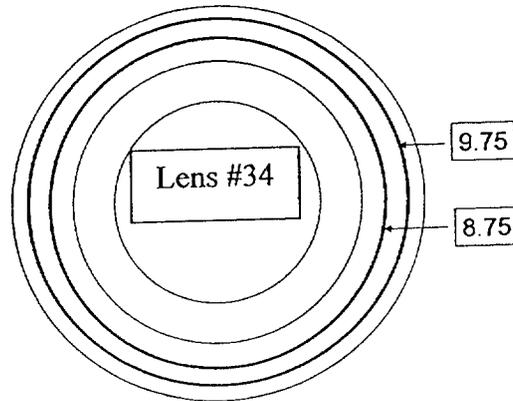
Compute the:

1. Base curve to order (Worksheet Step 1)
2. Power to order (Worksheet Step 10)
3. Overall diameter to order (Worksheet Step 4)

10k

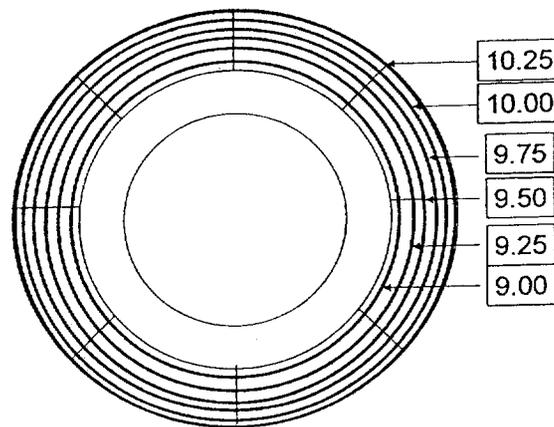
Fitting Step 2

Place #34 diagnostic lens with "observation rings" and observe fluorescein pattern at the Landing Zone Angle to determine the TTD (Tangent Touch Diameter).



Observation Rings at 8.75 mm and

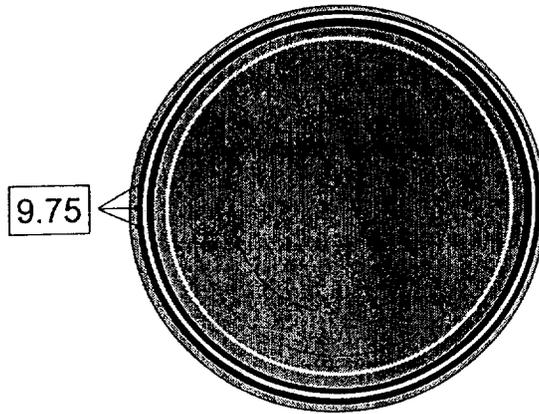
9.75mm



Fluorescein pattern with possible Tangent Touch Diameters

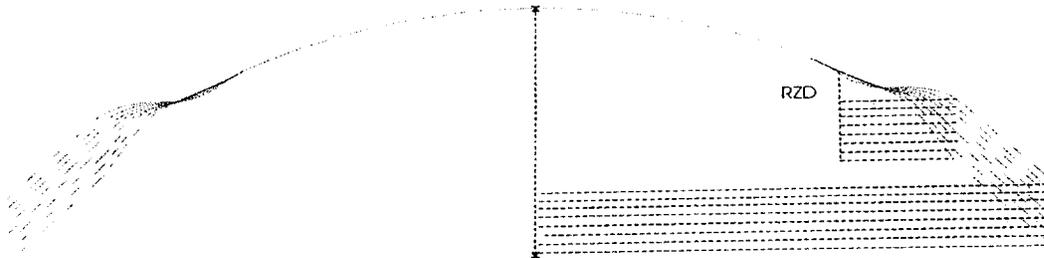
Enter numerical value of TTD (Tangent Touch Diameter) in millimeters into the worksheet.

Example: Utilizing Lens #34; the midpoint of the tangent bearing width in the fluorescein pattern in the Landing Zone is the Tangent Touch Diameter. If the mid-point tangent touch pattern occurs at the 9.75 "observation ring", the diagnostic lens is said to have a Tangent Touch Diameter of 9.75. This value is entered (Worksheet Step 2) for computation of the correct LZA.



Fitting Step 3

Place lenses from 24 sagittal depth series until determining which number of the 24 lens sagittal depth series "Just Lands".



Note: Lens #24 has the deepest sagittal depth; Lens #1 has the shallowest.

Fitting Step 4

Enter the Lens # of the sagittal depth diagnostic series that "Just Lands" at Worksheet Step 3D.

Note: A numbered sagittal depth diagnostic lens is said to have "Just Landed" when the fluorescein pattern indicates an area of central bearing (3-5mm) with a simultaneous light or "feather touch" of bearing in the lens periphery.

Fitting Step 5

Perform the computations as described on the Worksheet; complete Steps 5, 6, 7, 8 and 9.

A complete lens order includes:

- BCR - Base curve radius
- Lens power
- OAD - Overall diameter
- RZD - Return Zone Depth
- LZA - Landing Zone Angle

Note: The following variables are fixed.

- OZD - Optic zone diameter (6.0 mm)
- Lens thickness - 0.15 for +0.50
- RZW - Return Zone Width (1.0 mm)
- Edge lift system - controlled for each LZA to create uniform edge

Evaluation Of Lenses

The use of the lens prescribing system should result in a lens having a base curve that provides the desired post treatment keratometry target. This lens will also have a Return Zone Depth that will return the lens toward the cornea with enough clearance to allow the corneal apex to retreat posteriorly. The Return Zone clearance will allow for displacement of corneal volume and continued flattening through the optic zone region.

Initially the fluorescein pattern should demonstrate apical bearing over 3 to 5 mm surrounded by pooling under the return curve and initial portion of the Landing Zone. This should be surrounded by an area of tangency without heavy touch or bearing.

1. The absence of apical touch is problematic. This may be the result of the following:
 - Error in calculating the base curve.
 - Diagnostic lens error [lens not to package specification].
 - Return Zone too deep resulting in Return Zone junction bridging [outer Return Zone bearing that lifts the optic zone off the cornea].
 - Landing Zone angle too large resulting in Landing Zone bridging [Landing Zone bearing that lifts the optic zone off the cornea].

In the case of Return Zone or Landing Zone bridging, the fluorescein pattern will demonstrate a black circle of touch. For Return Zone junction bridging, the black circle will be at the outer junction of the Return Zone. For Landing Zone bridging, the black circle will be further out toward the lens edge. If the Return Zone is too deep AND the Landing Zone Angle is also too deep, the pattern will appear like Landing Zone bridging. To differentiate, first place a diagnostic lens having a Return Zone that is less deep. If the pattern still appears like Landing Zone bridging, the Landing Zone Angle must be decreased

Keep in mind that cases of low target myopia reduction and moderate myopia reduction with high eccentricity may NOT require Paragon CRT™ contact lenses. In these cases, even the shallowest Return Zone may cause Return Zone bridging. In this event, consider a conventional large diameter tricurve RGP lens design.

2. Return Zone too shallow

If the Return Zone depth is too shallow, the lens will fail to approach the cornea outside the optic zone. The result will be a lens that teeters or tilts on the apex or decenters. When nudged to center, the lens pattern will demonstrate excessive clearance under the Return Zone and much of the Landing Zone. Bubbles may form under the lens and the lens may easily move off the cornea.

3. Decentration and excessive clearance

Remove the lens and recheck the following:

- Base curve and Return Zone depth determination.
- Diagnostic lens error [lens not to package specification].

Note: All Paragon CRT™ and Paragon CRT™ 100 lenses are laser-marked in the Return Zone with a five place designation. The first two numbers correspond to the base curve, the second two denote the RZD and the fifth [letter] indicates the LZA.

The laser mark should be inspected when lenses do not demonstrate expected patterns.

If the determination and lens measurements are correct, select a lens with a greater Return Zone Depth. After placing the lens, the clearance and decentration should be reduced. If the Return Zone clearance is appropriate but the lens continues to gain in clearance toward the edge, the Landing Zone Angle is too small and the final lens order should reflect the need for a larger angle.

When initially placed and allowed to equilibrate, the well-fit lens will center and provide for a fluorescein pattern that demonstrates central bearing, paracentral clearance and peripheral alignment. After treatment, the fluorescein pattern will appear to be aligned through all zones of the lens with a low degree of paracentral clearance.

The initial pattern of a poorly fit lens may demonstrate any of the following characteristics.

- Poor centration
- Absence of central bearing
- Absence of paracentral clearance
- Excessive paracentral clearance with bubbles in the Return Zone
- Heavy bearing [black arc] at junction of the Return Zone and peripheral Landing Zone
- Heavy bearing through the peripheral Landing Zone
- Excessive clearance in the peripheral Landing Zone

The presence of any of the poorly fit patterns is followed by failure to obtain optimum treatment. A well-fit lens pattern must be achieved through diagnostic lens fitting prior to lens ordering.

Manual Prescribing System Worksheet

Step 1

Calculate the Base Curve Radius

- A. Flat Keratometry Value in Diopters
- B. Subtract Diopters Attempted Correction after vertex adjustment
(positive value)
- C. Subtract extra 0.50 D
= Base Curve Radius in Diopters
- D. Look up value in millimeters and round to nearest 0.10 mm

OD		OS
D		D
-	D	-
-	0.50 D	-
D		D
mm	BCR Rx	mm

Step 2

Determine the Tangential Touch Diameter

- Place lenses #33
Estimate TTD (midpoint of zone of tangency)

mm		mm
----	--	----

Step 3

Find the Lens ID # that "Just Lands" using fluorescein

- A. Look up Lens ID # that corresponds to BCR from step one
- B. Place these lenses on corresponding eyes and observe
"Clearance" or "Just Landed" or "Excessive Landing"

#		#
C / J / E		C / J / E

If lens in Step 3 demonstrates Clearance insert 2 lens # higher
If lens in Step 3 is Excessively Landed apply 2 lens # lower

#		#
C / J / E		C / J / E
#		#
C / J / E		C / J / E
#		#
C / J / E		C / J / E
#		#
C / J / E		C / J / E

- C. Repeat on each eye until Lens # of lens that "Just Landed" is known

- D. Circle lens # of diagnostic lens that just lands for use in Step 5

Step 4

Determine ideal Over-All Diameter (90% HVID)

OAD: Small = 10.0; Average 10.5; Large 11.0

mm	OAD Rx	mm
----	-----------	----

Step 5

Micron adjustment for variance of corneal height from the mean

- A. Look up sag of Lens ID # that "just landed" in Steps 3 or 4
- B. Look up sag for calculated BCR with mean RZD and 33 degree LZA
- C. Amount "just Landed" sag is greater (+) or less (-) than mean BCR
(sign sensitive)

Microns		Microns

Step 6

Look up LZA using TTD from Step 2 and OAD from Step 5

Look up LZA required to put TTD midway between midpoint and edge

Degrees	LZA Rx	Degrees
---------	-----------	---------

Step 7

Look up RZD adjustment for Rx LZA variance from 33 degrees

Look up microns of adjustment for change to new LZA (sign sensitive)

Microns		Microns
---------	--	---------

Step 8

Micron adjustment for required clearance for attempted treatment

Multiply attempted treatment from Step 1 X 6 microns (positive value)

Microns		Microns
---------	--	---------

Step 9

Determine final RZD using values from Steps 6, 8 and 9

- Mean RZD value
- Adjustment from Step 6 (sign sensitive)
- Adjustment from Step 8 (sign sensitive)
- Subtract Adjustment from Step 9

560 Microns	a	560 Microns
Microns	b	Microns
Microns	c	Microns
- Microns	d	- Microns
Microns	RZD Rx	Microns

Combine a,b,c & d; round to nearest 25 micron for RZD prescription

Step 10

Calculate Lens Power (using extra 0.50 D adjustment to base curve)

Add +0.50 to attempted post treatment refractive sphere

D	Power Rx	D
---	-------------	---

111

Step 1 B: Look up table for vertex adjusted amount of attempted correction.
Enter as positive value in worksheet

Attempted Correction in Diopters	12 mm Vertex Adjusted Correction (D)
-3.50	-3.38
-3.75	-3.63
-4.00	-3.88
-4.25	-4.00
-4.50	-4.25
-4.75	-4.50
-5.00	-4.75
-5.25	-5.00
-5.50	-5.13
-5.75	-5.38
-6.00	-5.63
-6.25	-5.88
-6.50	-6.00

Step 1 D: Look up table for conversion of Base Curve Radius in Diopters to BCR to nearest 0.10 mm

Calculated Base Curve Radius in Diopters	BCR Rounded to Nearest 0.10 mm	Calculated Base Curve Radius in Diopters	BCR Rounded to Nearest 0.10 mm	Calculated Base Curve Radius in Diopters	BCR Rounded to Nearest 0.10 mm	Calculated Base Curve Radius in Diopters	BCR Rounded to Nearest 0.10 mm
32.63	10.30	36.25	9.30	39.88	8.50	43.50	7.80
32.75	10.30	36.38	9.30	40.00	8.40	43.63	7.70
32.88	10.30	36.50	9.20	40.13	8.40	43.75	7.70
33.00	10.20	36.63	9.20	40.25	8.40	43.88	7.70
33.13	10.20	36.75	9.20	40.38	8.40	44.00	7.70
33.25	10.10	36.88	9.10	40.50	8.30	44.13	7.60
33.38	10.10	37.00	9.10	40.63	8.30	44.25	7.60
33.50	10.10	37.13	9.10	40.75	8.30	44.38	7.60
33.63	10.00	37.25	9.10	40.88	8.30	44.50	7.60
33.75	10.00	37.38	9.00	41.00	8.20	44.63	7.60
33.88	10.00	37.50	9.00	41.13	8.20	44.75	7.50
34.00	9.90	37.63	9.00	41.25	8.20	44.88	7.50
34.13	9.90	37.75	8.90	41.38	8.20	45.00	7.50
34.25	9.90	37.88	8.90	41.50	8.10	45.13	7.50
34.38	9.80	38.00	8.90	41.63	8.10	45.25	7.50
34.50	9.80	38.13	8.80	41.75	8.10	45.38	7.40
34.63	9.70	38.25	8.80	41.88	8.10	45.50	7.40
34.75	9.70	38.38	8.80	42.00	8.00	45.63	7.40
34.88	9.70	38.50	8.80	42.13	8.00	45.75	7.40
35.00	9.60	38.63	8.70	42.25	8.00	45.88	7.40
35.13	9.60	38.75	8.70	42.38	8.00	46.00	7.30
35.25	9.60	38.88	8.70	42.50	7.90	46.13	7.30
35.38	9.50	39.00	8.70	42.63	7.90	46.25	7.30
35.50	9.50	39.13	8.60	42.75	7.90	46.38	7.30
35.63	9.50	39.25	8.60	42.88	7.90	46.50	7.30
35.75	9.40	39.38	8.60	43.00	7.80	46.63	7.20
35.88	9.40	39.50	8.50	43.13	7.80	46.75	7.20
36.00	9.40	39.63	8.50	43.25	7.80	46.88	7.20
36.13	9.30	39.75	8.50	43.38	7.80	47.00	7.20

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Step 3A & 5 A and B: Look up table for determining starting lens #; Sagittal depth difference at a 9.75 mm chord between calculated Base Curve Radius with Mean RZD and 33 degree LZA and System 24 lens of known sagittal depth

Calculated Base Curve Radius	Sag @ 9.75 mm of BCR with Mean RZD and 33 Angle	Sag @ 9.75 mm of most closely matching fitting set lens	Lens # of most closely matching fitting set lens	Laser Mark of most closely matching fitting set lens
7.30	1.715	1.719	19	84560I
7.40	1.706	1.709	18	8660I
7.50	1.696	1.694	17	84558I
7.60	1.687	1.684	16	8658I
7.70	1.679	1.684	16	8658I
7.80	1.670	1.669	15	84555I
7.90	1.662	1.659	14	8655I
8.00	1.654	1.659	14	8655I
8.10	1.646	1.644	13	84553I
8.20	1.639	1.644	13	84553I
8.30	1.631	1.634	12	8653I
8.40	1.624	1.619	11	84550I
8.50	1.617	1.619	11	84550I
8.60	1.610	1.609	10	8650I
8.70	1.604	1.609	10	8650I
8.80	1.597	1.594	9	84548I
8.90	1.591	1.594	9	84548I
9.00	1.585	1.584	8	8648I
9.10	1.579	1.584	8	8648I
9.20	1.573	1.569	7	84545I
9.30	1.567	1.569	7	84545I
9.40	1.562	1.559	6	8645I
9.50	1.556	1.559	6	8645I
9.60	1.551	1.544	5	84543I
9.70	1.546	1.544	5	84543I
9.80	1.541	1.544	5	84543I
9.90	1.536	1.534	4	8643I
10.00	1.531	1.534	4	8643I
10.10	1.526	1.519	3	84540I
10.20	1.521	1.519	3	84540I
10.30	1.517	1.519	3	84540I

Step 6 and 7: Look up table for determining proper Landing Zone Angle from observed Tangent Touch Diameter and required microns of Return Zone Depth adjustment.

	If HMD dictates OAD of 10.0 and target Tangential Touch Diameter (TTD) is ~9.00 mm										
If -34 has TTD @	8.2	8.5	8.7	9	9.2	9.5	9.7	10			
choose new LZA of	-37	-36	-35	-34	-33	-32	-31	-30			
adjust RZD by	-0.053	-0.033	-0.025	-0.014	0.000	0.017	0.036	0.058			
to give new TTD @	9.33	9.17	9.21	9.24	9.25	9.24	9.22	9.18			
	If HMD dictates OAD of 10.5 and target Tangential Touch Diameter (TTD) is ~9.50 mm										
If -34 has TTD @	8.2	8.5	8.7	9	9.2	9.5	9.7	10	10.2	10.5	
choose new LZA of	-40	-39	-37	-36	-35	-34	-33	-32	-31	-30	
adjust RZD by	-0.070	-0.073	-0.064	-0.053	-0.038	-0.020	0.000	0.023	0.048	0.072	
to give new TTD @	9.44	9.59	9.67	9.71	9.74	9.75	9.75	9.73	9.69	9.55	
	If HMD dictates OAD of 11 and target Tangential Touch Diameter (TTD) is ~10.00 mm										
If -34 has TTD @					9.2	9.5	9.7	10	10.2	10.5	10.7
choose new LZA of					-37	-36	-35	-34	-33	-32	-31
adjust RZD by					-0.091	-0.073	-0.051	-0.027	0.000	0.029	0.060
to give new TTD @					10.22	10.25	10.27	10.27	10.25	10.22	10.17

UNDERSTANDING POOR FIT DYNAMICS

1. Poor Centration

Poor centration can result from insufficient fluid forces relative to lid interaction or gravity. If the lens is nudged to center and it demonstrates ideal central bearing, paracentral clearance, and peripheral tangency, the overall diameter is too small and centration should be achieved by increasing overall diameter only.

If the pattern is ideal in the central and paracentral zones but the landing zone exhibits clearance, the angle of the peripheral zone must be increased along with a possible diameter increase.

Poor centration can result from too much sagittal depth in the lens as well. If the poor centration is accompanied by either lack of central bearing, excessive return zone depth [bubble formation] or excessive bearing at the Return Zone – Landing Zone junction (junction two), the Return Zone Depth should be reduced first to see if centration is achieved.

2. Absence Of Central Bearing

A lens may fail to demonstrate central bearing for two reasons. First, the base curve selected may simply be wrong. Recheck the keratometry or corneal topography to be sure the lens selected is flatter than the corneal apex. If the base curve has been properly selected, the cause is most always excessive sagittal depth with resultant "bridging". If the Return Zone Depth is too great, the lens will gain in sagittal depth relative to the same chord diameter of the cornea. Even a lens that has a base curve that is significantly flatter than K may vault the cornea. In this case, the fluorescein pattern should demonstrate an arc bearing outside the Return Zone.

This arc bearing is the foundation of the "Lens Bridge". The lens designed as flatter than k with a Return Zone that is too deep or too wide will span over the corneal apex instead of bearing on it.

The solution for this problem is to decrease the RZD. The lens will then be free to touch first in the central bearing zone instead of at the outside of the Return Zone.

In cases of high pre treatment corneal eccentricity it is possible for the Landing Zone Angle to also be too large in combination with the Return Zone Depth. In this case, the "bridging" starts with bearing toward the edge of the lens or the most peripheral portion of the Landing Zone. Decreasing the angle of the Landing Zone will allow the lens to increase its central bearing.

3. Absence Of Paracentral Clearance

The use of a yellow Wrattan filter is recommended to assist in detecting tear film thickness variances under the lens with fluorescein.

If a lens exhibits a uniform tear film when initially placed and the paracentral clearance zone is not apparent, you must first recheck the lens to determine that it has a proper design. Naked eye inspection of the ocular surface using the reflection of a single fluorescent lamp tube should facilitate determination of sigmoid geometry in the paracentral zone that is steeper than the base curve. This general inspection should reveal breaks in the lamp that correspond to the changes in geometry. You may also use the corneal topographer to capture and process an image of the base curve of the lens. Note: All Paragon CRT™ and Paragon CRT™ 100 lenses have a five-place laser mark in the Return Zone.

A lens having too much overall sagittal depth may seal off and prevent fluorescein from migrating under the lens. The result is a pattern that is uniform and without color. The lens can be nudged or partially lifted to allow the fluorescein containing tear film to travel under the lens. In this case, the pattern will significantly change and demonstrate excessive "bridging".

Experience will result in increased judgment of the proper ratio of central bearing and paracentral clearance for a given amount of refractive change. The greater the attempted dioptric change, the greater the central bearing and the greater the paracentral clearance. For that reason, a one diopter-attempted change will not demonstrate deep or wide paracentral clearance.

4. Excessive Paracentral Clearance With Bubbles In The Return Zone

A lens with too much clearance at junction one before returning to the cornea may contain air bubbles in the optic zone and Return Zone. Check the base curve to determine it is correct for the attempted treatment. If the base curve is correct and the proper Return Zone Depth is in place and the peripheral tangency and edge lift appear good, the optic zone should be reduced to decrease the junction one elevation from the cornea. This is expected in some cases above 5.00 diopters of target treatment. In some cases, bubbles are reduced by reducing the RZD by 25 microns or the LZA by 1 degree.

5. Heavy Bearing [Black Arc] At Junction Of Return Zone And Landing Zone

If the optic zone bearing and Landing Zone tangency are good, the Return Zone is too deep and must either be reduced in width or decreased in depth. An increase in the Landing Zone Angle will also move the midpoint of the tangency out from the junction and toward the lens edge.

6. Heavy Bearing Through The Landing Zone

Once again, verify that the base curve is correct and the Return Zone is proper for the attempted treatment. If the bearing is less than full seal off but the fluorescein pattern demonstrates a uniform dark bearing instead of a light tear film clearance decrease the Landing Zone Angle one level. If the Landing Zone actually approaches seal off, decrease the RZD in conjunction with the LZA.

7. Excessive Clearance In Landing Zone

This problem is often associated with poor centration. To study the fluorescein pattern, always nudge the lens to center, while minimizing any tilting of the lens. If the lens demonstrates proper central bearing and junction two clearance but the Landing Zone progresses to too much edge lift or excessive clearance, increase the Landing Zone Angle.

PROBLEM SOLVING TABLE

Problem	Possible Cause	Solution
Apical clearance	<ul style="list-style-type: none"> bridging due to excessive sagittal depth 	<ul style="list-style-type: none"> Decrease Return Zone Depth Decrease Landing Zone Angle
Excess central bearing, lack of good centration	<ul style="list-style-type: none"> base curve too flat shallow Return Zone Depth Landing Zone Angle too small 	<ul style="list-style-type: none"> Increase Return Zone Depth Increase Landing Zone Angle
Poor lateral centration	<ul style="list-style-type: none"> inadequate sagittal depth inadequate lens diameter 	<ul style="list-style-type: none"> Increase depth of Return Zone Increase Landing Zone Angle Increase overall diameter*
Superficial punctate staining	<ul style="list-style-type: none"> sag of lens inadequate ocular lens surface has become soiled 	<ul style="list-style-type: none"> Increase depth of Return Zone Increase Landing Zone Angle Clean or replace lens
Lack of movement	<ul style="list-style-type: none"> sag of lens excessive 	<ul style="list-style-type: none"> Decrease Return Zone Depth Decrease Landing Zone Angle Decrease overall diameter*
Excessive LZ clearance	<ul style="list-style-type: none"> junction two clearance is excessive low corneal eccentricity 	<ul style="list-style-type: none"> Increase Return Zone Depth Increase Landing Zone Angle
Over-treatment	<ul style="list-style-type: none"> excessive corneal reshaping 	<ul style="list-style-type: none"> Steepen base curve of optic zone
Under-treatment without apical pooling	<ul style="list-style-type: none"> base curve too steep poor lens centration 	<ul style="list-style-type: none"> Flatten base curve of optic zone and increase the Return Zone Depth as needed Improve centration increase Landing Zone Angle
Under-treatment with apical pooling	<ul style="list-style-type: none"> bridging 	<ul style="list-style-type: none"> RZ bridging-decrease Return Zone Depth LZ bridging -decrease the Landing Zone Angle
Tight lens or no movement	<ul style="list-style-type: none"> Return Zone too deep diameter too large 	<ul style="list-style-type: none"> Decrease Return Zone Depth Reduce diameter
Loose lens	<ul style="list-style-type: none"> Return Zone too shallow Landing Zone too small diameter too small 	<ul style="list-style-type: none"> Increase Return Zone Depth Increase Landing Zone Angle Increase diameter
High-riding lens	<ul style="list-style-type: none"> Landing Zone Angle too small diameter too small 	<ul style="list-style-type: none"> Increase Landing Zone Angle Increase diameter
Low-riding lens (without bridging)	<ul style="list-style-type: none"> Landing Zone too shallow diameter too small 	<ul style="list-style-type: none"> Increase Landing Zone Angle Increase diameter*
Flare, glare or ghosts	<ul style="list-style-type: none"> Return Zone bridging poor centration 	<ul style="list-style-type: none"> Decrease Return Zone Depth Increase diameter*
Fogging and scratchy lens	<ul style="list-style-type: none"> dirty lens improper care & handling of lenses oily eye make-up removers 	<ul style="list-style-type: none"> See "Lens Care"
Increase in corneal astigmatism	<ul style="list-style-type: none"> poor centration diameter too small Return Zone too shallow 	<ul style="list-style-type: none"> Improve centration Increase diameter* Increase Return Zone Depth
Poor VA with lenses	<ul style="list-style-type: none"> poor centration power error 	<ul style="list-style-type: none"> Improve centration Check over-refraction/lens power
Poor VA without lenses	<ul style="list-style-type: none"> poor centration irregular corneal astigmatism bridging 	<ul style="list-style-type: none"> Increase LZA and/or OAD Improve centration See under-treatment solutions

*common adjustment, increase 0.5 mm in diameter up to 12.0 or 0.5 mm less than corneal diameter

FOLLOW-UP CARE

1. Follow-up examinations, as recommended by the eye care practitioner, are necessary to ensure continued successful contact lens wear. Follow-up examinations should include an evaluation of lens movement, centration, comfort and fluorescein pattern. Lens movement will decrease as tear volume is diminishing during adaptation. The patient should also begin to feel more comfortable. An assessment of vision and eye health, including inspection of the cornea for edema and/or staining should be performed.
2. On the first morning following overnight wear, with lenses in place on the eyes, evaluate fitting performance to assure that the criteria of a well-fitted lens continue to be satisfied. The fluorescein pattern provides a guide to lens adaptation. If the cornea flattens rapidly there will be a larger area of central touch and the pooling at the lens transition will be reduced. The lens will usually show reduced movement.
3. A lens with excessive movement should be replaced with another that is larger in diameter and approaches the corneal diameter less 0.5 to 1.0 mm. Landing Zone Angle should be reevaluated to determine possible need for larger LZA.
4. If the cornea shows no flattening, this may be due to a base curve that is not flat enough or a Return Zone that is too deep, resulting in "bridging". Bridging is caused by the outer junction of the Return Zone having a heavy touch. The result of the touch is the lifting of the base curve off the cornea. When the base curve is lifted off the central cornea, it will not flatten the cornea, even if the base curve is significantly flatter than the cornea it is covering. If the base curve has been selected to be flatter than the cornea equivalent to the attempted reduction in myopia, the failure to flatten most often resides in a Return Zone that is too deep. In this case, the Return Zone Depth should be decreased until the fluorescein pattern demonstrates a proper central bearing of 3.0 to 5.0 mm.
5. After lens removal, conduct a thorough biomicroscopy examination to detect the following:
 - The presence of vertical corneal striae in the posterior central cornea and/or corneal neovascularization is indicative of excessive corneal edema.
 - The presence of corneal staining and/or limbal-conjunctival hyperemia can be indicative of a reaction to solution preservatives, excessive lens wear, and/or a poorly fitted lens.

RECOMMENDED INITIAL WEARING SCHEDULE

Although many practitioners have developed their own initial wearing schedules, the following sequence is recommended as a guideline. Patients should be cautioned to limit the wearing schedule recommended by the eye care practitioner regardless of how comfortable the lenses feel.

It is ideal for the patient to start with overnight wear the first night. A well fit lens provides for centration with the closed eye. The effects of lid interaction on blinking and gravity may result in lens decentration during open eye wear. Patients should be instructed to place the lens in the eye 15 to 20 minutes before going to sleep.

Patients must be cautioned; "when in doubt, take it out". It is important that the new wearer not sleep in a lens that has a significant foreign body sensation. In the event of foreign body sensation, the patient should be instructed to remove the lens, clean and rewet it and replace the lens. If the sensation continues, the lens should not be worn.

The patient should report for follow-up evaluation the morning after the first overnight wear. The visit is best scheduled within a few hours of awakening and the patient should report with the lens in place. This visit provides an excellent opportunity to evaluate lens centration and potential lens adherence.

Upon the absence of clinical signs and complications, the patient may be instructed to continue overnight wear of the lens until the next scheduled follow-up visit.

An alternate initial daytime wear schedule may be offered at the practitioner's discretion.

Day 1	two periods of wear not to exceed 6 hours total
Day 2	6 hours
Day 3 - Day 5	8 hours
Day 6	overnight wear with follow up visit within 24 hours

The cornea normally changes within five to eight hours of wear. The wearing schedule should be modulated to determine the MINIMUM wear required for myopic reduction. The average wearing time is between 8 and 10 hours. Determine the wearing time at which lens movement appears to stop. Attempt to maintain wearing time at this level.

MYOPIC REDUCTION MAINTENANCE LENS (RETAINER LENS) WEARING SCHEDULE

With the Paragon CRT™ and Paragon CRT™ 100 contact lenses, the lens used to achieve refractive therapy is usually the lens used to maintain achieved correction. The Retainer Lens wearing time begins with the same wearing time required for the last fitted Paragon CRT™ or Paragon CRT™ 100 contact lenses for overnight Contact Lens Corneal Refractive Therapy. After a period of several days, or when the eye care practitioner is satisfied that the patient has adapted to the first Retainer Lenses, the patient may attempt to skip a night of wear to monitor the duration of visual improvement. This may continue for as long as the patient can see clearly. When it is found that the patient experiences a visual decrement following lens removal, the schedule of overnight wear must be modulated to maintain visual performance.

Note: To maintain the Contact Lens Corneal Refractive Therapy effect of myopia reduction overnight lens wear must be continued on a prescribed schedule. Failure to do so can affect daily activities (e.g., night driving), visual fluctuations and changes in intended correction.

HANDLING OF LENSES

Standard procedures for rigid gas permeable lenses may be used.

CAUTION: Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy are shipped to the practitioner nonsterile. Clean and condition lenses prior to use.

PATIENT LENS CARE DIRECTIONS

Please see Package Insert of lens care product.

VERTEX DISTANCE AND KERATOMETRY CONVERSION CHARTS

Standard charts may be used.

HOW SUPPLIED

CAUTION: Nonsterile lenses. Clean and condition lenses prior to use.

Each Paragon CRT™ and Paragon CRT™ 100 lens is supplied nonsterile in an individual plastic case. The lens is shipped dry; or, wet shipped in Unique-pH™ Multi-Purpose Solution. This solution contains hydroxypropyl guar, a unique wetting and conditioning polymer system, polyethylene glycol, Tetric®*, boric acid, propylene glycol; and, is preserved with POLYQUAD® (polyquaternium-1) 0.0011% and edetate disodium 0.01%. The case, packing slip or invoice is marked with the central base curve radius, diameter,

dioptric power, overall diameter, Return Zone Depth, Landing Zone Angle, center thickness, serial number, ship date and the color of the lens. If the patient has experienced a prior history of allergy to any of these ingredients, remove the lens from the solution and soak the lens 24 hours in unpreserved saline prior to cleaning, disinfecting and dispensing.

* Registered Trademark of BASF corp.
Unique-pH™ is a Trademark of Alcon Laboratories, Inc.

Never reuse the solution. You may store the lens in the unopened container until ready to dispense, up to a maximum of twenty-five (25) days from the Ship Date (see Packing Slip). If the lens is stored for longer periods of time, it should be cleaned and disinfected with a recommended product (see product list in the Lens Care Directions section), and placed into inventory as you presently do with any other RGP lens held in your office. Follow the directions on the selected disinfecting solution regarding prolonged storage.

REPORTING OF ADVERSE REACTIONS

All serious adverse experiences and adverse reactions observed in patients wearing or experienced with the lenses should be reported to the manufacturer.

Paragon Vision Sciences
947 E. Impala Avenue
Mesa, Arizona 85204-6619

1-800-528-8279
1-480-892-7602
1-480-926-7369 FAX

(Package Insert enclosed)

(print date)

AFTER YOUR

PARAGON CRT™

or

PARAGON CRT™ 100

CONTACT LENSES

FOR

CONTACT LENS CORNEAL REFRACTIVE THERAPY

HAVE BEEN FITTED

**Instructions for Wearers of Paragon CRT™ or Paragon CRT™ 100 Contact Lenses for
Contact Lens Corneal Refractive Therapy**

Instructions for Wearers of

Paragon CRT™ (paflucocon B)
or
Paragon CRT™ 100 (paflucocon D)

Contact Lenses for Contact Lens Corneal Refractive Therapy

Patient Name: _____

Prescribed Lens: _____

Dr. _____

Address _____

Phone _____

CAUTIONS: Federal law restricts this device to sale by, or on the order of a licensed practitioner.

Contact lenses for Corneal Refractive Therapy should be fitted only by a trained and certified contact lens fitter. Nonsterile. Clean and condition lenses prior to use.

The lens is shipped dry; or, wet shipped in Unique-pH™ Multi-Purpose Solution. This solution contains hydroxypropyl guar, a unique wetting and conditioning polymer system, polyethylene glycol, Tetronic*, boric acid, propylene glycol; and, is preserved with POLYQUAD® (polyquarternium-1) 0.0011% and edetate disodium 0.01%. The case, packing slip or invoice is marked with the central base curve radius, diameter, dioptric power, overall diameter, Return Zone Depth, Landing Zone Angle, center thickness, serial number, ship date and color of the lens.

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PRECAUTIONS

General

Clinical studies have demonstrated that Paragon CRT™ and Paragon CRT™ 100 contact lenses manufactured from Paragon HDS® and Paragon HDS® 100 respectively are safe and effective for their intended use. However, due to the small number of patients enrolled in the clinical investigation of lenses, all refractive powers, design configurations, and lens parameters available in the lens materials were not evaluated in significant numbers. This is especially true for adolescent subjects in this investigation. Consequently, when selecting an appropriate lens design and parameters, the eye care practitioner should consider all characteristics of the lens that can affect lens performance and your ocular health; including, oxygen permeability, wettability, central and peripheral thickness, and optic zone diameter.

The potential impact of these factors on your ocular health must be carefully weighed against your need for refractive reduction; therefore, your continuing ocular health and lens performance on your eye should be carefully monitored by your eye care practitioner. Corneal edema is more prevalent when the lens is used in high altitudes.

Each Paragon CRT™ and Paragon CRT™ 100 lens is supplied nonsterile in an individual plastic case. The lens is shipped dry; or, wet shipped in Unique-pH™ Multi-Purpose Solution. This solution contains hydroxypropyl guar, a unique wetting and conditioning polymer system, polyethylene glycol, Tetronic*, boric acid, propylene glycol; and, is preserved with POLYQUAD® (polyquaternium-1) 0.0011% and edetate disodium 0.01%. If you have experienced a prior history of allergy to any of these ingredients, remove the lens from the solution and soak the lens 24 hours in unpreserved saline prior to cleaning, disinfecting and dispensing.

* Registered Trademark of BASF corp.
Unique-pH™ is a Trademark of Alcon Laboratories, Inc.

Never reuse the solution. You may store the lens in the unopened container until ready to dispense, up to a maximum of twenty-five (25) days from the Ship Date (see Packing Slip). If the lens is stored for longer periods of time, it should be cleaned and disinfected with a recommended product (see product list in the Lens Care Directions section). Follow the directions on the selected disinfecting solution regarding prolonged storage.

Patient

Solution Precautions

- Different solutions cannot always be used together and not all solutions are safe for use with all lenses. Use only recommended solutions with your Paragon CRT™ and Paragon CRT™ 100 contact lenses.
- Do not heat the wetting/soaking solution and lenses.
- Always use fresh unexpired lens care solutions.
- Always follow directions in the package inserts of the contact lens solutions used.
- Use only a chemical lens care system. Use of a heat (thermal) lens care system can cause damage by warping your contact lenses.
- Sterile unpreserved solutions, when used, should be discarded after the time specified in the labeling directions.
- Do not use saliva or anything other than the recommended solutions for lubricating or wetting lenses.
- Always keep the lenses completely immersed in the recommended storage solution when the lenses are not being worn (stored).

Handling Precautions

- Always wash and rinse hands before handling lenses. Do not get cosmetics, lotions, soaps, creams, deodorants, or sprays in the eyes or on the lenses. It is best to put on lenses before putting on makeup. Water-base cosmetics are less likely to damage lenses than oil-base products.
- Be certain that your fingers and hands are free of foreign material before touching your contact lenses, as microscopic scratches of the lenses may occur causing distorted vision and/or injury to the eye.
- Carefully follow the handling, insertion, removal, cleaning, disinfecting, storing and wearing instructions in this booklet and those prescribed by your eye care practitioner.
- Always handle your lenses carefully and avoid dropping them.
- Never use tweezers or other tools to remove your lenses from the lens container unless specifically indicated for that use. Pour your lens into your hand.
- Do not touch the lens with your fingernails.
- To minimize lens warpage during cleaning, the lenses should be cleaned in the palm of the hand rather than between the thumb and fingers.

Lens Wearing Precautions

- CAUTION: Nonsterile. Clean and condition lenses prior to use.
- If the lens sticks (stops moving) on the eye, follow the recommended directions on "Care For A Sticking (Nonmoving) Lens" in this patient information booklet. The lens should move freely on the eye for the continued health of the eye. If nonmovement of the lens continues, you should immediately consult your eye care practitioner.
- Never wear your contact lenses beyond the period recommended by your eye care practitioner.
- Avoid, if possible, all harmful or irritating vapors and fumes when wearing lenses.
- If aerosol products such as sprays are used while wearing lenses, exercise caution and keep eyes closed until the spray has settled.

Lens Case Precautions

- Contact lens cases can be a source of bacterial growth. To prevent contamination and to help avoid serious eye injury, always empty and rinse the lens case with fresh, sterile rinsing solution and allow to air dry.
- Lens cases should be replaced at regular intervals as recommended by the lens case manufacturer or eye care practitioner.

Topics To Discuss With The Eye Care Practitioner

- Ask your eye care practitioner about wearing your lenses during sporting activities.
- Always contact your eye care practitioner before using any medicine in your eyes.
- As with any contact lens, follow-up visits are necessary to assure the continuing health of your eyes. You should be instructed as to a recommended follow-up schedule.

Who Should Know That You Are Wearing Contact Lenses

- Inform your doctor (health care practitioner) about being a contact lens wearer.
- If you choose to wear your lenses while at work always inform your employer of being a contact lens wearer. Some jobs may require the use of eye protection equipment or may require that you not wear contact lenses during work hours.

ADVERSE EFFECTS (PROBLEMS AND WHAT TO DO)

You should be informed that the following problems may occur.

- Eyes stinging, burning, itching (irritation), or other eye pain
- Comfort is less than when lens was first placed on eye
- Feeling of something in the eye such as a foreign body or scratched area
- Excessive watering (tearing) of the eyes
- Unusual eye secretions
- Redness of the eyes
- Reduced sharpness of vision (poor visual acuity)
- Blurred vision, rainbows, or halos around objects
- Sensitivity to light (photophobia)
- Dry eyes

If you notice any of these conditions: **IMMEDIATELY REMOVE YOUR LENSES.**

If the discomfort or problem stops, then look closely at the lens. If the lens is in any way damaged, DO NOT put the lens back on your eye. Place the lens in the storage case and contact your eye care practitioner. If the lens has dirt, an eyelash, or other foreign objects on it, or the problem stops and the lens appears undamaged, you should thoroughly clean, rinse and disinfect the lens; then reinsert it. If the problem continues, you should IMMEDIATELY remove the contact lenses and consult your eye care practitioner.

When any of the above problems occurs, a serious condition such as infection, corneal ulcer neovascularization, iritis, persistent stromal edema or GPC (giant papillary conjunctivitis) may be present. You should keep the lens off the eye and seek immediate professional identification of the problem and prompt treatment to avoid serious eye damage, including corneal scarring, opacification, blindness or loss of eye.

PERSONAL CLEANLINESS AND LENS HANDLING

Preparing The Lens For Wearing

It is essential that you learn and use good hygienic methods in the care and handling of your new lenses. Cleanliness is the first and most important aspect of proper contact lens care. In particular, your hands should be clean and free of any foreign substance when you handle your lenses. The procedures are:

- Always wash your hands thoroughly with a mild soap, rinse completely, and dry with a lint-free towel before touching your lenses.
- Avoid the use of soaps containing cold cream, lotion, or oily cosmetics before handling your lenses, since these substances may come into contact with the lenses and interfere with successful wearing.
- To avoid damaging your lenses, handle them with your fingertips, and be careful to avoid contact with your fingernails. It is helpful to keep your fingernails short and smooth.
- Start correctly by getting into the habit of always using proper hygienic procedures so that they become automatic.

Handling The Lens

Develop the habit of always working with the same lens first to avoid mix-ups.

Remove the lens from its storage case and examine it to be sure that it is moist, clean, and free of any nicks and cracks.

Placing The Lens On The Eye

Work over a table, upon which is placed a clean towel. Do not place lenses on the eye while working over a sink. For the right eye:

- Wet your right index finger with a drop of conditioning solution and place the contact lens front side down on your right index finger.
- Place the second finger of the left hand on the middle of the upper lid and press firmly upward.
- Place the second finger of the right hand on the lower lid and press firmly downward.
- Stare into a mirror as though looking through the second finger holding the contact lens. You will later learn to do this without a mirror.
- Slowly move the hand to advance the forefinger with the contact lens towards the cornea until the lens touches the cornea and release the lids.
- Release the lid and close the eye for a few seconds.

Repeat procedure for the left eye.

There are other methods of lens placement. If this method is difficult for you, your eye care practitioner will provide you with an alternate method.

Note: If after placement of the lens your vision is blurred, check for the following:

- The lens is not centered on the eye (see "Centering The Lens", next section in this booklet).
- If the lens is centered, remove the lens (see "Removing The Lens" section) and check for the following:
 - a. Cosmetics or oils on the lens. Clean, rinse, disinfect, and place on the eye again.
 - b. The lens is on the wrong eye.

If you find that your vision is still blurred after checking the above possibilities, remove both lenses and consult your eye care practitioner.

Centering The Lens

Very rarely, a lens that is on the cornea will be displaced onto the white part of the eye during lens wear. This may also occur during placement and removal of the lenses if the correct techniques are not performed properly. To center a lens follow this procedure.

- First locate the lens by pulling away the lids.
- After the lens is found, gently press on the lid over the lens while looking away from the direction of the lens.
- Next look back towards the lens.

Removing The Lens

Always remove the same lens first.

- Wash, rinse, and dry your hands thoroughly.
- Work over a table with a clean towel. Do not remove lenses over a sink.
- Place the right index finger at the outer corner of the eye.
- Place the left hand cupped below the eye.
- Open the eyes wide as if to stare.
- Continue to keep the eyes open and pull the lids sideways away from nose.
- Blink quickly and firmly.

Remove the second lens by following the same procedure.

Follow the required lens care procedures described under the heading: CARING FOR YOUR LENSES.

Note: If this method of removing your lens is difficult for you, your eye care practitioner will provide you with an alternate method.

CARING FOR YOUR LENSES

Basic Instructions

For continued safe and comfortable wearing of your lenses, it is important that you clean and rinse, then disinfect your lenses after each removal using the care regimen recommended by your eye care practitioner. Cleaning and rinsing are necessary to remove mucus, secretions, films, or deposits, which may have accumulated during wearing. The ideal time to clean, rinse and disinfect your lenses is immediately after wearing them. Disinfecting is necessary to destroy harmful germs.

You should adhere to a recommended care regimen.

Failure to follow the regimen may result in development of serious ocular complications as discussed in the WARNINGS section of the Package Insert.

When you first receive your lenses, practice how to put the lenses on and how to remove them while you are in your eye care practitioner's office. At that time you will be provided with a recommended cleaning and disinfection regimen and, instructions and warnings for lens care, handling, cleaning, and disinfection. Your eye care practitioner should instruct you about appropriate and adequate procedures and products for your use.

For safe contact lens wear you should know and always practice your lens care routine.

- Always wash, rinse, and dry hands before handling contact lenses.
- Always use fresh unexpired lens care solutions.
- Use the recommended system of lens care, which is chemical (not heat) and carefully follow instructions on solution labeling. Different solutions cannot always be used together and not all solutions are safe for use with all lenses. **Do not alternate or mix lens care systems unless indicated on solution labeling.**

- Always remove, clean, rinse, enzyme and disinfect your lenses according to the schedule prescribed by your eye care practitioner. The use of an enzyme or any cleaning solution does not substitute for disinfection.
- To avoid contamination, do not use saliva or anything other than the recommended solutions for lubricating or rewetting your lenses. Do not put lenses in your mouth.

The lens care products listed below are recommended for use with your Paragon CRT™ and Paragon CRT™ 100 contact lenses. This is not an exclusive list. You may use other lens care solutions as recommended by your eye care practitioner.

SYSTEM PROCESS	CHEMICAL (not heat) DISINFECTION SYSTEM
Cleaning	Unique-pH™ Multi-Purpose Solution, SupraClens®, Opti-Clean® II, Opti-Zyme®, Barnes-Hind® GP Daily Cleaner, LC-65®, Pro-Free/GP®
Disinfection	Unique-pH™ Multi-Purpose Solution, Barnes-Hind® GP Wetting and Soaking Solution, Wet-N-Soak® Plus
Lubrication	Clerz® Plus, Opti-Tears®, Refresh Contacts™, Wet-N-Soak® Rewetting Drops

PRODUCT LIST

Unique-pH™ Multi-Purpose Solution, SupraClens®, Clerz® Plus, Opti-Clean® II, Opti-Zyme®, Opti-Tears® by Alcon Laboratories, Inc.

Barnes-Hind® GP Daily Cleaner, LC-65®, ProFree/GP®, Barnes-Hind® GP Wetting and Soaking Solution, Wet-N-Soak® Plus, Wet-N-Soak® Rewetting Drops by Allergan Pharmaceuticals

The directions found in the package inserts from these products should be followed. Failure to adhere to these procedures may result in the development of serious ocular complications. A patient should not switch from one care system to another unless it has been determined by the eye care practitioner that this is necessary. Do not mix or alternate the disinfection and storage systems unless so indicated on the product label.

Always wash and rinse your hands thoroughly before handling your contact lenses.

1. Clean

Clean one lens first (always start with the same lens first to avoid mix-ups). Place the lens, front side down, in the palm of the hand and apply several drops of cleaning solution. Using the index finger of the other hand, apply slight pressure in a swirling motion for the time recommended by the cleaning solution manufacturer. Do not clean the lens by rubbing it between the thumb and index fingers, as this may cause lens warpage.

2. Rinse

Rinse the lens thoroughly with saline to remove the cleaning solution, mucus, and film from the lens surface. Place that lens into the correct chamber of the lens storage case. Then repeat the clean and rinse procedure for the second lens.

3. Disinfect

After cleaning and rinsing the lenses disinfect them by using the system recommended by your eye care practitioner and/or the lens manufacturer. Follow the instructions provided in the disinfection solution labeling.

4. Storage

To store lenses, disinfect and leave them in the closed case until ready to wear. If lenses are not to be used immediately following disinfection, you should consult the storage solution package insert or your eye care practitioner for information on storage of your lenses.

Always keep your lenses completely immersed in a recommended disinfecting/conditioning solution when the lenses are not being worn. If you discontinue wearing your lenses, but plan to begin wearing them again after a few weeks, ask your eye care practitioner for a recommendation on how to store your lenses.

Note: Paragon CRT™ and Paragon CRT™ 100 Contact Lenses for Corneal Refractive Therapy cannot be heat (thermally) disinfected.

5. Care of Your Lens Case

Contact lens cases can be a source of bacteria growth. After removing your lenses from the lens case, empty and rinse the lens storage case with solution(s) recommended by the lens case manufacturer; then allow the lens case to air dry. When the case is used again, refill it with fresh disinfecting solution. Lens cases should be replaced at regular intervals as recommended by the lens case manufacturer or your eye care practitioner.

6. Lubricating/Rewetting

Your eye care practitioner will recommend a lubricating/rewetting solution. Lubricating/Rewetting solutions can be used to rewet (lubricate) your lenses while you are wearing them to make them more comfortable.

Lens Deposits And Use Of Enzymatic Cleaning Procedure

Your eye care practitioner may recommend enzyme cleaning. Enzyme cleaning removes protein deposits on the lens. These deposits cannot be removed with regular cleaners. Removing protein deposits is important for the well-being of your lenses and eyes. If these deposits are not removed, they can damage the lenses and cause irritation.

Enzyme cleaning does not replace routine cleaning and disinfecting. For enzyme cleaning, you should carefully follow the instructions in the enzymatic cleaning labeling.

Care For A Sticking (Nonmoving) Lens

If the lens sticks (stops moving) or cannot be removed, you should apply 2 drops of the recommended lubricating or rewetting solution directly to the eye and wait until the lens begins to move freely on the eye before removing it. If nonmovement of the lens continues after 30 minutes, you should IMMEDIATELY consult your eye care practitioner.

EMERGENCIES

If chemicals of any kind (household products, gardening solutions, laboratory chemicals, etc.) are splashed into your eyes, you should:

- FLUSH YOUR EYES IMMEDIATELY WITH TAP WATER.
- REMOVE YOUR LENSES.
- IMMEDIATELY CONTACT YOUR EYE CARE PRACTITIONER OR VISIT A HOSPITAL EMERGENCY ROOM WITHOUT DELAY.

WEARING SCHEDULE

Typically, your practitioner will start your overnight wear the first night. You should place the lens in your eye 15 to 20 minutes before going to sleep. A well fit lens provides for centration with the closed eye. The effects of lid interaction on blinking and gravity may result in lens decentration during open eye wear.

Be aware, "when in doubt, take it out". It is important that the new wearer not sleep in a lens that has a significant foreign body sensation. In the event of foreign body sensation, remove the lens, clean and re-wet it; and, again place the lens in your eye. If the sensation continues, remove the lens. The lens should not be worn.

Your practitioner will schedule a follow-up evaluation the morning after the first overnight wear. The visit is best scheduled within a few hours of awakening and you should report with your lenses in place. This visit provides an excellent opportunity to evaluate lens centration and potential lens adherence.

Assuming the absence of clinical signs and complications, you will be instructed to continue overnight wear of the lenses until the next scheduled follow-up visit.

Your practitioner may initiate your lens wear on a daytime schedule; for example.

Day 1	two periods of wear not to exceed 6 hours total
Day 2	6 hours
Day 3-5	8 hours
Day 6	overnight wear with follow up visit within 24 hours

The cornea normally changes within five to eight hours of wear. Your practitioner should modulated your wearing time to determine the MINIMUM wear required for myopic reduction. The average wearing time is between 8 and 10 hours. Attempt to maintain wearing time at this minimum level.

Myopic Reduction Maintenance Lens (Retainer Lens) Schedule

With the Paragon CRT™ and Paragon CRT™ 100 contact lenses, the lens used to achieve refractive therapy is usually the lens used to maintain achieved correction. The Retainer Lens wearing time begins with the same wearing time required for the last fitted Paragon CRT™ or Paragon CRT™ 100 Contact Lenses for overnight Contact Lens Corneal Refractive Therapy. After a period of several days, or when the eye care practitioner is satisfied that the patient has adapted to the first Retainer Lenses, the patient may attempt to skip a night of wear to monitor the duration of visual improvement. This may continue for as long as the patient can see clearly. When it is found that the patient experiences a visual decrement following lens removal, the schedule of overnight wear must be modulated to maintain visual performance.

Note: To maintain the Contact Lens Corneal Refractive Therapy effect of myopia reduction overnight lens wear must be continued on a prescribed schedule. Failure to do so can affect daily activities (e.g., night driving), visual fluctuations and changes in intended correction.

Manufacturer:

Paragon Vision Sciences
947 E. Impala Avenue
Mesa, Arizona 85204-6619

1-800-528-8279
1-480-892-7602
1-480-926-7369 FAX

(Print date)

Vial Label Text

BC: _____ S#: _____
RZD: _____ LM#: _____
LZA: _____ CT: _____
OAD: _____ PWR: _____

Paragon CRT™

Vial Label Text

BC: _____ S#: _____
RZD: _____ LM#: _____
LZA: _____ CT: _____
OAD: _____ PWR: _____

Paragon CRT™ 100



RIGHT

LEFT

BC _____

BC _____

CT _____

CT _____

RZD _____

RZD _____

PWR _____

PWR _____

LZA _____

LZA _____

DIA _____

DIA _____

Material: HDS (blue) HDS100 (green)

Material: HDS (blue) HDS100 (green)

Laser Mark ID _____

Laser Mark ID _____

Serial # _____

Serial # _____

CAUTIONS: Nonsterile. Clean and condition lens prior to use.

Federal law restricts this device to sale by, or on the order of a licensed practitioner.

 PARAGON
VISION SCIENCES
Just watch us.™

947 E. Impala Avenue
Mesa, Arizona 85204-6619

1045E-04/02

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Paragon CRT™ Rigid Gas Permeable Contact Lenses For Overnight Wear

IMPORTANT:

Paragon Vision Sciences, Inc provides the following basic information about contact lens wear and Paragon CRT™ lenses for you. If you are interested in Paragon CRT lenses, please see a licensed eye care professional certified in fitting the product. Based on your individual needs, your certified professional will determine if Paragon CRT lenses are right for you.

What is Paragon CRT™?

Paragon CRT is a unique rigid gas permeable contact lens design temporarily correct myopia (nearsightedness) by gently and reversibly reshaping your cornea while you sleep. You may then be able to go throughout the day without any lenses. Paragon CRT lenses are made from an overnight contact lens material in a special design intended for this purpose.

Can everyone wear Paragon CRT™?

Not everyone can wear Paragon CRT. This lens is intended for individuals with low to moderate myopia (nearsightedness up to -6 diopters) and moderate astigmatism. During the U.S. clinical study 121 subjects of the 205 enrolled completed nine months of lens wear.

How likely is it that Paragon CRT™ will work for me?

Of the 159 eyes targeted for 20/20 vision (who had this acuity with their best spectacles), 59% obtained 20/20 or better without other correction and 92% obtained 20/40 or better at 9 months. (20/40 vision is the acuity required in most states to drive without glasses). 67% Of the subjects obtained 20/20 vision in at least one eye (their better seeing eye) and 94% achieved 20/40.

Is Corneal Refractive Therapy Permanent?

No, it is temporary. If you stop wearing the lenses regularly while you sleep your lens-free vision will return to its original state in as little as 72 hours.

Who should not wear Paragon CRT™?

Persons who exhibit any of the following conditions.

- ◆ Inflammation or infection of the eye
- ◆ Any eye disease, injury, or abnormality that affects the cornea or surrounding tissue
- ◆ Any systemic disease that may affect the eye or be worsened by wearing contact lenses
- ◆ Allergic reactions of eye, which may be caused or exaggerated by wearing contact lenses or use of contact lens solutions
- ◆ Eyes that are red or irritated, or suffer severe dryness

What are the risks of wearing Paragon CRT™?

There is a small risk involved when any contact lens is worn. It is not expected that the Paragon CRT Contact Lenses for Corneal Refractive Therapy will provide a risk that is greater than other rigid gas permeable contact lenses. Because this procedure is reversible some patients may notice changes in their vision late in the day.

The two most common side effects that occur in rigid contact lens wearers are corneal edema and corneal staining. It is anticipated that the same side effects will also occur in some wearers of Paragon CRT. Other side effects that sometimes occur in all contact lens wearers are pain, redness, tearing, irritation, discharge, abrasion of the eye or distortion of vision. These are usually temporary conditions if the contact lenses are removed promptly.

In very rare instances, infections of the eye, corneal ulcer, iritis, or neovascularization, corneal scarring, permanent decreased vision may occur. The occurrence of these side effects should be minimized or completely eliminated if proper lens care is exercised.

How do I care for my lenses?

Your lenses should be chemically disinfected after every use (not heat). Your eye care practitioner will instruct you about what care system is best for you. Your lenses should be replaced as your eye care practitioner sees fit.

How long does it take to reach good vision?

Most patients have rapid improvement in the first few days of treatment and have achieved nearly their optimum vision in 10 to 14 days. A small percentage of patients will not improve enough to function under all conditions without additional correction.

What do I do in the period of time between when I start Paragon CRT™ and when I achieve treatment?

It is important to understand that for a time after you have begun beginning treatment but before sufficient treatment is realized, your old glasses will no longer be the appropriate prescription. Your eye care professional will discuss what your options are for visual correction during that period of time.

What are some important things for me to remember?

If you feel like you are having a problem with your vision or contact lenses, immediately remove your lenses and call your eye care professional. Always follow the instructions your eye care professional has given you about lens wear, follow-up and care systems.

What if I have questions about Paragon CRT™?

It is essential that you discuss any issues you may have about your eye health or contact lens wear with your eye care professional. If you need any further information about Paragon CRT lenses, please contact your eye care professional.

For more information, please call 1-800-528-8279, or find us on the web at www.paragonCRT.com
Paragon CRT™ is marketed and manufactured by:

Paragon Vision Sciences
947 E. Impala Avenue
Mesa, AZ 85204 USA

AFTER YOUR

PARAGON Quadra RG™

or

PARAGON Quadra RG™ 100

CONTACT LENSES

FOR

CONTACT LENS CORNEAL REFRACTIVE THERAPY

HAVE BEEN FITTED

**Instructions for Wearers of Paragon Quadra RG™ or Paragon Quadra RG™ 100
Contact Lenses for Contact Lens Corneal Refractive Therapy**

Instructions for Wearers of
Paragon Quadra RG™ (paflucocon B)
or
Paragon Quadra RG™ 100 (paflucocon D)

Contact Lenses for Contact Lens Corneal Refractive Therapy

Patient Name: _____

Prescribed Lens: _____

Dr. _____

Address _____

Phone _____

CAUTIONS: Federal law restricts this device to sale by, or on the order of a licensed practitioner.

Contact lenses for Corneal Refractive Therapy should be fitted only by a trained and certified contact lens fitter. Nonsterile. Clean and condition lenses prior to use.

The lens is shipped dry; or, wet shipped in Unique-pH™ Multi-Purpose Solution. This solution contains hydroxypropyl guar, a unique wetting and conditioning polymer system, polyethylene glycol, Tetric®*, boric acid, propylene glycol; and, is preserved with POLYQUAD® (polyquarternium-1) 0.0011% and edetate disodium 0.01%. The case, packing slip or invoice is marked with the central base curve radius, dioptric power, overall diameter, center thickness, lot number, fill date and color of the lens.

* Registered Trademark of BASF Corp.

Unique-pH™ is a Trademark of Alcon Laboratories, Inc.

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PRECAUTIONS

General

Clinical studies have demonstrated that Paragon Quadra RG™ and Paragon Quadra RG™ 100 contact lenses manufactured from Paragon HDS® and Paragon HDS® 100 respectively are safe and effective for their intended use. However, due to the small number of patients enrolled in the clinical investigation of lenses, all refractive powers, design configurations, and lens parameters available in the lens materials were not evaluated in significant numbers. This is especially true for adolescent subjects in this investigation. Consequently, when selecting an appropriate lens design and parameters, the eye care practitioner should consider all characteristics of the lens that can affect lens performance and your ocular health; including, oxygen permeability, wettability, central and peripheral thickness, and optic zone diameter.

The potential impact of these factors on your ocular health must be carefully weighed against the your need for refractive reduction; therefore, the your continuing ocular health and lens performance on your eye should be carefully monitored by your eye care practitioner. Corneal edema is more prevalent when the lens is used in high altitudes.

The safety and effectiveness of the Quadra RG™ and Quadra RG™ 100 design in the overnight wear modality was established partially on the basis of the experience with the Paragon CRT™ and Paragon CRT™ 100 design in the same lens materials. Therefore, some differences in efficacy may be observed.

Each Paragon Quadra RG™ and Paragon Quadra RG™ 100 lens is supplied nonsterile in an individual plastic case. The lens is shipped dry; or, wet shipped in Unique-pH™ Multi-Purpose Solution. This solution contains hydroxypropyl guar, a unique wetting and conditioning polymer system, polyethylene glycol, Tetronic*, boric acid, propylene glycol; and, is preserved with POLYQUAD® (polyquaternium-1) 0.0011% and edetate disodium 0.01%. If you have experienced a prior history of allergy to any of these ingredients, remove the lens from the solution and soak the lens 24 hours in unpreserved saline prior to cleaning, disinfecting and dispensing.

* Registered Trademark of BASF corp.

Unique-pH™ is a Trademark of Alcon Laboratories, Inc.

Never reuse the solution. You may store the lens in the unopened container until ready to dispense, up to a maximum of thirty (30) days from the Fill Date (see container). If the lens is stored for longer periods of time, it should be cleaned and disinfected with a recommended product (see product list in the Lens Care Directions section). Follow the directions on the selected disinfecting solution regarding prolonged storage.

Patient

You should be aware of the following precautions.

Solution Precautions

- Different solutions cannot always be used together and not all solutions are safe for use with all lenses. Use only recommended solutions with your Quadra RG™ and Paragon Quadra RG™ 100 contact lenses.
- Do not heat the wetting/soaking solution and lenses.
- Always use fresh unexpired lens care solutions.
- Always follow directions in the package inserts of the contact lens solutions used.
- Use only a chemical lens care system. Use of a heat (thermal) lens care system can cause damage by warping your contact lenses.

- Sterile unpreserved solutions, when used, should be discarded after the time specified in the labeling directions.
- Do not use saliva or anything other than the recommended solutions for lubricating or wetting lenses.
- Always keep the lenses completely immersed in the recommended storage solution when the lenses are not being worn (stored).

Handling Precautions

- Always wash and rinse hands before handling lenses. Do not get cosmetics, lotions, soaps, creams, deodorants, or sprays in the eyes or on the lenses. It is best to put on lenses before putting on makeup. Water-base cosmetics are less likely to damage lenses than oil-base products.
- Be certain that your fingers or hands are free of foreign material before touching your contact lenses, as microscopic scratches of the lenses may occur causing distorted vision and/or injury to the eye.
- Carefully follow the handling, insertion, removal, cleaning, disinfecting, storing and wearing instructions in this booklet and those prescribed by your eye care practitioner.
- Always handle your lenses carefully and avoid dropping them.
- Never use tweezers or other tools to remove your lenses from the lens container unless specifically indicated for that use. Pour your lens into your hand.
- Do not touch the lens with your fingernails.
- To minimize lens warpage during cleaning, the lenses should be cleaned in the palm of the hand rather than between the thumb and fingers.

Lens Wearing Precautions

- If the lens sticks (stops moving) on your eye, follow the recommended directions on "Care For A Sticking (Nonmoving) Lens" in this patient information booklet. The lens should move freely on the eye for the continued health of the eye. If nonmovement of the lens continues, you should immediately consult your eye care practitioner.
- Never wear your contact lenses beyond the period recommended by your eye care practitioner.
- Avoid, if possible, all harmful or irritating vapors and fumes when wearing lenses.
- If aerosol products such as sprays are used while wearing lenses, exercise caution and keep your eyes closed until the spray has settled.

Lens Case Precautions

- Contact lens cases can be a source of bacterial growth. To prevent contamination and to help avoid serious eye injury, always empty and rinse the lens case with fresh, sterile rinsing solution and allow to air dry.
- Lens cases should be replaced at regular intervals as recommended by the lens case manufacturer or eye care practitioner.

Discuss these topics with your eye care practitioner

- Wear of contact lenses during sporting activities.
- Use of any medication in your eyes.
- Importance of adhering to the recommended follow-up schedule to assure the continuing health of your eyes.
- Informing your doctor (health care practitioner) about being a contact lens wearer.
- Informing your employer of being a contact lens wearer. Some jobs may require the use of eye protection equipment or may require that you not wear contact lenses during work hours.

ADVERSE EFFECTS (PROBLEMS AND WHAT TO DO)

You should be informed that the following problems may occur.

- Eyes stinging, burning, itching (irritation), or other eye pain
- Comfort is less than when lens was first placed on eye
- Feeling of something in the eye such as a foreign body or scratched area
- Excessive watering (tearing) of the eyes
- Unusual eye secretions
- Redness of the eyes
- Reduced sharpness of vision (poor visual acuity)
- Blurred vision, rainbows, or halos around objects
- Sensitivity to light (photophobia)
- Dry eyes

If you notice any of these conditions: **IMMEDIATELY REMOVE YOUR LENSES.**

If the discomfort or problem stops, then look closely at the lens. If the lens is in any way damaged, **DO NOT** put the lens back on your eye. Place the lens in the storage case and contact your eye care practitioner. If the lens has dirt, an eyelash, or other foreign objects on it, or the problem stops and the lens appears undamaged, you should thoroughly clean, rinse and disinfect the lens; then reinsert it. If the problem continues, you should **IMMEDIATELY** remove the contact lenses and consult your eye care practitioner.

When any of the above problems occurs, a serious condition such as infection, corneal ulcer neovascularization, iritis, persistent stromal edema or GPC (giant papillary conjunctivitis) may be present. You should keep the lens off the eye and seek immediate professional identification of the problem and prompt treatment to avoid serious eye damage, including corneal scarring, opacification, blindness or loss of eye.

PERSONAL CLEANLINESS AND LENS HANDLING

Preparing The Lens For Wearing

It is essential that you learn and use good hygienic methods in the care and handling of your new lenses. Cleanliness is the first and most important aspect of proper contact lens care. In particular, your hands should be clean and free of any foreign substance when you handle your lenses. The procedures are:

- Always wash your hands thoroughly with a mild soap, rinse completely, and dry with a lint-free towel before touching your lenses.
- Avoid the use of soaps containing cold cream, lotion, or oily cosmetics before handling your lenses, since these substances may come into contact with the lenses and interfere with successful wearing.

- To avoid damaging your lenses, handle them with your fingertips, and be careful to avoid contact with your fingernails. It is helpful to keep your fingernails short and smooth.
- Start off correctly by getting into the habit of always using proper hygienic procedures so that they become automatic.

Handling The Lens

Develop the habit of always working with the same lens first to avoid mix-ups.

Remove the lens from its storage case and examine it to be sure that it is moist, clean, and free of any nicks and cracks.

Placing The Lens On The Eye

Work over a table, upon which is placed a clean towel. Do not place lenses on the eye while working over a sink. For the right eye:

- Wet your right index finger with a drop of conditioning solution and place the contact lens front side down on our right index finger.
- Place the second finger of the left hand on the middle of the upper lid and press firmly upward.
- Place the second finger of the right hand on the lower lid and press firmly downward.
- Stare into a mirror as though looking through the second finger holding the contact lens. You will later learn to do this without a mirror.
- Slowly move the hand to advance the forefinger with the contact lens towards the cornea until the lens touches the cornea and release the lids.
- Release the lid and close the eye for a few seconds.

Repeat procedure for the left eye.

There are other methods of lens placement. If this method is difficult for you, your eye care practitioner will provide you with an alternate method.

Note: If after placement of the lens your vision is blurred, check for the following:

- The lens is not centered on the eye (see "Centering The Lens", next section in this booklet).
- If the lens is centered, remove the lens (see "Removing The Lens" section) and check for the following:
 - a. Cosmetics or oils on the lens. Clean, rinse, disinfect, and place on the eye again.
 - b. The lens is on the wrong eye.

If you find that your vision is still blurred after checking the above possibilities, remove both lenses and consult your eye care practitioner.

Centering The Lens

Very rarely, a lens that is on the cornea will be displaced onto the white part of the eye during lens wear. This may also occur during placement and removal of the lenses if the correct techniques are not performed properly. To center a lens follow this procedure.

- First locate the lens by pulling away the lids.
- After the lens is found, gently press on the lid over the lens while looking away from the direction of the lens.
- Next look back towards the lens.

Removing The Lens

Always remove the same lens first.

- Wash, rinse, and dry your hands thoroughly.
- Work over a table with a clean towel. Do not remove lenses over a sink.
- Place the right index finger at the outer corner of the eye.
- Place the left hand cupped below the eye.
- Open the eyes wide as if to stare.
- Continue to keep the eyes open and pull the lids sideways away from nose.
- Blink quickly and firmly.

Remove the second lens by following the same procedure.

Follow the required lens care procedures described under the heading: CARING FOR YOUR LENSES.

Note: If this method of removing your lens is difficult for you, your eye care practitioner will provide you with an alternate method.

CARING FOR YOUR LENSES

Basic Instructions

For continued safe and comfortable wearing of your lenses, it is important that you clean and rinse, then disinfect your lenses after each removal using the care regimen recommended by your eye care practitioner. Cleaning and rinsing are necessary to remove mucus, secretions, films, or deposits, which may have accumulated during wearing. The ideal time to clean, rinse and disinfect your lenses is immediately after wearing them. Disinfecting is necessary to destroy harmful germs.

You should adhere to a recommended care regimen.

Failure to follow the regimen may result in development of serious ocular complications as discussed in the WARNINGS section of the Package Insert.

When you first receive your lenses, practice how to put the lenses on and how to remove them while you are in your eye care practitioners office. At that time you will be provided with a recommended cleaning and

disinfection regimen and, instructions and warnings for lens care, handling, cleaning, and disinfection. Your eye care practitioner should instruct you about appropriate and adequate procedures and products for your use.

For safe contact lens wear you should know and always practice your lens care routine.

- Always wash, rinse, and dry hands before handling contact lenses.
- Always use fresh unexpired lens care solutions.
- Use the recommended system of lens care which is chemical (not heat) and carefully follow instructions on solution labeling. Different solutions cannot always be used together and not all solutions are safe for use with all lenses. **Do not alternate or mix lens care systems unless indicated on solution labeling.**
- Always remove, clean, rinse, enzyme and disinfect your lenses according to the schedule prescribed by your eye care practitioner. The use of an enzyme or any cleaning solution does not substitute for disinfection.
- To avoid contamination, do not use saliva or anything other than the recommended solutions for lubricating or rewetting your lenses. Do not put lenses in your mouth.

The lens care products listed below are recommended for use with your Paragon Quadra RG™ and Paragon Quadra RG™ 100 contact lenses. This is not an exclusive list. You may use other lens care solutions as recommended by your eye care practitioner.

SYSTEM PROCESS	CHEMICAL (not heat) DISINFECTION SYSTEM
Cleaning	Unique-pH™ Multi-Purpose Solution, SupraClens®, Opti-Clean® II, Opti-Zyme®, Barnes-Hind® GP Daily Cleaner, LC-65®, Pro-Free/GP®
Disinfection	Unique-pH™ Multi-Purpose Solution, Barnes-Hind® GP Wetting and Soaking Solution, Wet-N-Soak® Plus
Lubrication	Clerz® Plus, Opti-Tears®, Refresh Contacts™, Wet-N-Soak® Rewetting Drops

PRODUCT LIST

Unique-pH™ Multi-Purpose Solution, SupraClens®, Clerz® Plus, Opti-Clean® II, Opti-Zyme®, Opti-Tears® by Alcon Laboratories, Inc.

Barnes-Hind® GP Daily Cleaner, LC-65®, ProFree/GP®, Barnes-Hind® GP Wetting and Soaking Solution, Wet-N-Soak® Plus, Wet-N-Soak® Rewetting Drops by Allergan Pharmaceuticals

The directions found in the package inserts from these products should be followed. Failure to adhere to these procedures may result in the development of serious ocular complications. A patient should not switch from one care system to another unless it has been determined by the eye care practitioner that this is necessary. Do not mix or alternate the disinfection and storage systems unless so indicated on the product label.

Always wash and rinse your hands thoroughly before handling your contact lenses.

I. Clean

Clean one lens first (always start with the same lens first to avoid mix-ups). Place the lens, front side down, in the palm of the hand and apply several drops of cleaning solution. Using the index finger of the other hand, apply slight pressure in a swirling motion for the time recommended by the cleaning solution manufacturer. Do not clean the lens by rubbing it between the thumb and index fingers, as this may cause lens warpage.

2. Rinse

Rinse the lens thoroughly with saline to remove the cleaning solution, mucus, and film from the lens surface. Place that lens into the correct chamber of the lens storage case. Then repeat the clean and rinse procedure for the second lens.

3. Disinfect

After cleaning and rinsing the lenses disinfect them by using the system recommended by your eye care practitioner and/or the lens manufacturer. Follow the instructions provided in the disinfection solution labeling.

4. Storage

To store lenses, disinfect and leave them in the closed case until ready to wear. If lenses are not to be used immediately following disinfection, you should consult the storage solution package insert or your eye care practitioner for information on storage of your lenses.

Always keep your lenses completely immersed in a recommended disinfecting/conditioning solution when the lenses are not being worn. If you discontinue wearing your lenses, but plan to begin wearing them again after a few weeks, ask your eye care practitioner for a recommendation on how to store your lenses.

Note: Paragon Quadra RG™ Quadra RG™ 100 Contact Lenses for Corneal Refractive Therapy cannot be heat (thermally) disinfected.

5. Care of Your Lens Case

Contact lens cases can be a source of bacteria growth. After removing your lenses from the lens case, empty and rinse the lens storage case with solution(s) recommended by the lens case manufacturer; then allow the lens case to air dry. When the case is used again, refill it with fresh disinfecting solution. Lens cases should be replaced at regular intervals as recommended by the lens case manufacturer or your eye care practitioner.

6. Lubricating/Rewetting

Your eye care practitioner will recommend a lubricating/rewetting solution. Lubricating/Rewetting solutions can be used to rewet (lubricate) your lenses while you are wearing them to make them more comfortable.

Lens Deposits And Use Of Enzymatic Cleaning Procedure

Your eye care practitioner may recommend enzyme cleaning. Enzyme cleaning removes protein deposits on the lens. These deposits cannot be removed with regular cleaners. Removing protein deposits is important for the well-being of your lenses and eyes. If these deposits are not removed, they can damage the lenses and cause irritation.

Enzyme cleaning does not replace routine cleaning and disinfecting. For enzyme cleaning, you should carefully follow the instructions in the enzymatic cleaning labeling.

Care For A Sticking (Nonmoving) Lens

If the lens sticks (stops moving) or cannot be removed, you should apply 5 drops of the recommended lubricating or rewetting solution directly to the eye and wait until the lens begins to move freely on the eye before removing it. If nonmovement of the lens continues after 30 minutes, you should IMMEDIATELY consult your eye care practitioner.

EMERGENCIES

If chemicals of any kind (household products, gardening solutions, laboratory chemicals, etc.) are splashed into your eyes, you should:

- FLUSH YOUR EYES IMMEDIATELY WITH TAP WATER.
- REMOVE YOUR LENSES.
- IMMEDIATELY CONTACT YOUR EYE CARE PRACTITIONER OR VISIT A HOSPITAL EMERGENCY ROOM WITHOUT DELAY.

WEARING SCHEDULE

Typically, your practitioner will start your overnight wear the first night. You should place the lens in your eye 15 to 20 minutes before going to sleep. A well fit lens provides for centration with the closed eye. The effects of lid interaction on blinking and gravity may result in lens decentration during open eye wear.

Be aware, "when in doubt, take it out". It is important that the new wearer not sleep in a lens that has a significant foreign body sensation. In the event of foreign body sensation, remove the lens, clean and rewet it; and, again place the lens in your eye. If the sensation continues, remove the lens. The lens should not be worn.

Your practitioner will schedule a follow-up evaluation the morning after the first overnight wear. The visit is best scheduled within a few hours of awakening and you should report with your lenses in place. This visit provides an excellent opportunity to evaluate lens centration and potential lens adherence.

Assuming the absence of clinical signs and complications, you will be instructed to continue overnight wear of the lenses until the next scheduled follow-up visit.

Your practitioner may initiate your lens wear on a daytime schedule; for example.

Day 1	two periods of wear not to exceed 6 hours total
Day 2	6 hours
Day 3-5	8 hours
Day 6	overnight wear with follow up visit within 24 hours

The cornea normally changes within five to eight hours of wear. Your practitioner should modulated your wearing time to determine the MINIMUM wear required for myopic reduction. The average wearing time is between 8 and 10 hours. Attempt to maintain wearing time at this minimum level.

Myopic Reduction Maintenance Lens (Retainer Lens) Schedule

The Retainer Lens schedule must be customized for each patient. The Retainer Lens wearing time begins with the same wearing time required for the last fitted Paragon Quadra RG™ or Paragon Quadra RG™ 100 contact lenses for overnight Contact Lens Corneal Refractive Therapy. After a period of several days, or when the eye care practitioner is satisfied that the patient has adapted to the first Retainer Lenses, the patient may attempt to skip a night of wear to monitor the duration of visual improvement. This may continue for as long as the patient can see clearly. When it is found that the patient experiences a visual decrement following lens removal, the schedule of overnight wear must be modulated to maintain visual performance.

Note: To maintain the Contact Lens Corneal Refractive Therapy effect of myopia reduction overnight lens wear must be continued on a prescribed schedule. Failure to do so can affect daily activities (e.g., night driving), visual fluctuations and changes in intended correction.

Manufacturer:

Paragon Vision Sciences
947 E. Impala Avenue
Mesa, Arizona 85204-6619

1-800-528-8279
1-480-892-7602
1-480-926-7369 FAX

(Print date)

Quadra RG™

RIGHT

LEFT

BCOR _____
CT _____
PWR _____
RCW _____
LZA _____
ACW _____
ACR _____
PCW _____
PCR _____
E _____
DIA _____

BCOR _____
CT _____
PWR _____
RCW _____
LZA _____
ACW _____
ACR _____
PCW _____
PCR _____
E _____
DIA _____

Material: HDS (violet) HDS100 (yellow)

Material: HDS (violet) HDS100 (yellow)

Laser Mark ID _____

Laser Mark ID _____

Serial # _____

Serial # _____

CAUTIONS: Nonsterile. Clean and condition lenses prior to use.

Federal law restricts this device to sale by, or on the order of a licensed practitioner.

 PARAGON
VISION SCIENCES

947 E. Impala Avenue
Mesa, Arizona 85204-6619

1045E-04/02

FOR IDENTIFICATION

JUN 3 1 51 PM '02

7/1/02

Vial Label Text

BCOR	_____	CT	_____
PWR	_____	RCW	_____
ACW	_____	ACR	_____
PCW	_____	PCR	_____
E	_____	DIA	_____

Quadra RG™

Vial Label Text

BCOR	_____	CT	_____
PWR	_____	RCW	_____
ACW	_____	ACR	_____
PCW	_____	PCR	_____
E	_____	DIA	_____

Quadra RG™100

Paragon Quadra RG™ Rigid Gas Permeable Contact Lenses For Overnight Wear

IMPORTANT:

Paragon Vision Sciences, Inc provides the following basic information about contact lens wear and Paragon Quadra RG™ lenses for you. If you are interested in Paragon Quadra RG lenses, please see a licensed eye care professional certified in fitting the product. Based on your individual needs, your certified professional will determine if Paragon Quadra RG lenses are right for you.

What is Paragon Quadra RG™?

Paragon Quadra RG is a unique rigid gas permeable contact lens design temporarily correct myopia (nearsightedness) by gently and reversibly reshaping your cornea while you sleep. You may then be able to go throughout the day without any lenses. Paragon Quadra RG lenses from an overnight contact lens material in a special design intended for this purpose.

Can everyone wear Paragon Quadra RG™?

Not everyone can wear Paragon Quadra RG. This lens is intended for individuals with low to moderate myopia (nearsightedness up to -3 diopters) and moderate astigmatism. During the U.S. clinical study 121 subjects of the 205 enrolled completed nine months of lens wear.

How likely is it that Paragon Quadra RG™ will work for me?

Of the 159 eyes targeted for 20/20 vision (who had this acuity with their best spectacles), 59% obtained 20/20 or better without other correction and 92% obtained 20/40 or better at 9 months. (20/40 vision is the acuity required in most states to drive without glasses). 67% Of the subjects obtained 20/20 vision in at least one eye (their better seeing eye) and 94% achieved 20/40.

Is Corneal Refractive Therapy Permanent?

No, it is temporary. If you stop wearing the lenses regularly while you sleep your lens-free vision will return to its original state in as little as 72 hours.

Who should not wear Paragon Quadra RG™?

Persons who exhibit any of the following conditions.

- ◆ Inflammation or infection of the eye
- ◆ Any eye disease, injury, or abnormality that affects the cornea or surrounding tissue
- ◆ Any systemic disease that may affect the eye or be worsened by wearing contact lenses
- ◆ Allergic reactions of eye which may be caused or exaggerated by wearing contact lenses or use of contact lens solutions
- ◆ Eyes that are red or irritated, or suffer severe dryness

What are the risks of wearing Paragon Quadra RG™?

There is a small risk involved when any contact lens is worn. It is not expected that the Paragon Quadra RG Contact Lenses for Corneal Refractive Therapy will provide a risk that is greater than other rigid gas permeable contact lenses. Because this procedure is reversible some patients may notice changes in their vision late in the day.

The two most common side effects that occur in rigid contact lens wearers are corneal edema and corneal staining. It is anticipated that the same side effects will also occur in some wearers of Paragon Quadra RG. Other side effects that sometimes occur in all contact lens wearers are pain, redness, tearing, irritation, discharge, abrasion of the eye or distortion of vision. These are usually temporary conditions if the contact lenses are removed promptly.

In very rare instances, infections of the eye, corneal ulcer, iritis, or neovascularization, corneal scarring, permanent decreased vision may occur. The occurrence of these side effects should be minimized or completely eliminated if proper lens care is exercised.

How do I care for my lenses?

Your lenses should be chemically disinfected after every use (not heat). Your eye care practitioner will instruct you about what care system is best for you. Your lenses should be replaced as your eye care practitioner sees fit.

How long does it take to reach good vision?

Most patients have rapid improvement in the first few days of treatment and have achieved nearly their optimum vision in 10 to 14 days. A small percentage of patients will not improve enough to function under all conditions without additional correction.

What do I do in the period of time between when I start Quadra RG™ and when I achieve treatment?

It is important to understand that for a time after you have begun beginning treatment but before sufficient treatment is realized, your old glasses will no longer be the appropriate prescription. Your eye care professional will discuss what your options are for visual correction during that period of time.

What are some important things for me to remember?

If you feel like you are having a problem with your vision or contact lenses, immediately remove your lenses and call your eye care professional. Always follow the instructions your eye care professional has given you about lens wear, follow-up and care systems.

What if I have questions about Paragon Quadra RG™?

It is essential that you discuss any issues you may have about your eye health or contact lens wear with your eye care professional. If you need any further information about Paragon Quadra RG lenses, please contact your eye care professional.

For more information, please call 1-800-528-8279, or find us on the web at www.paragonCRT.com
Paragon Quadra RG™ is marketed and manufactured by:

Paragon Vision Sciences
947 E. Impala Avenue
Mesa, AZ 85204 USA