

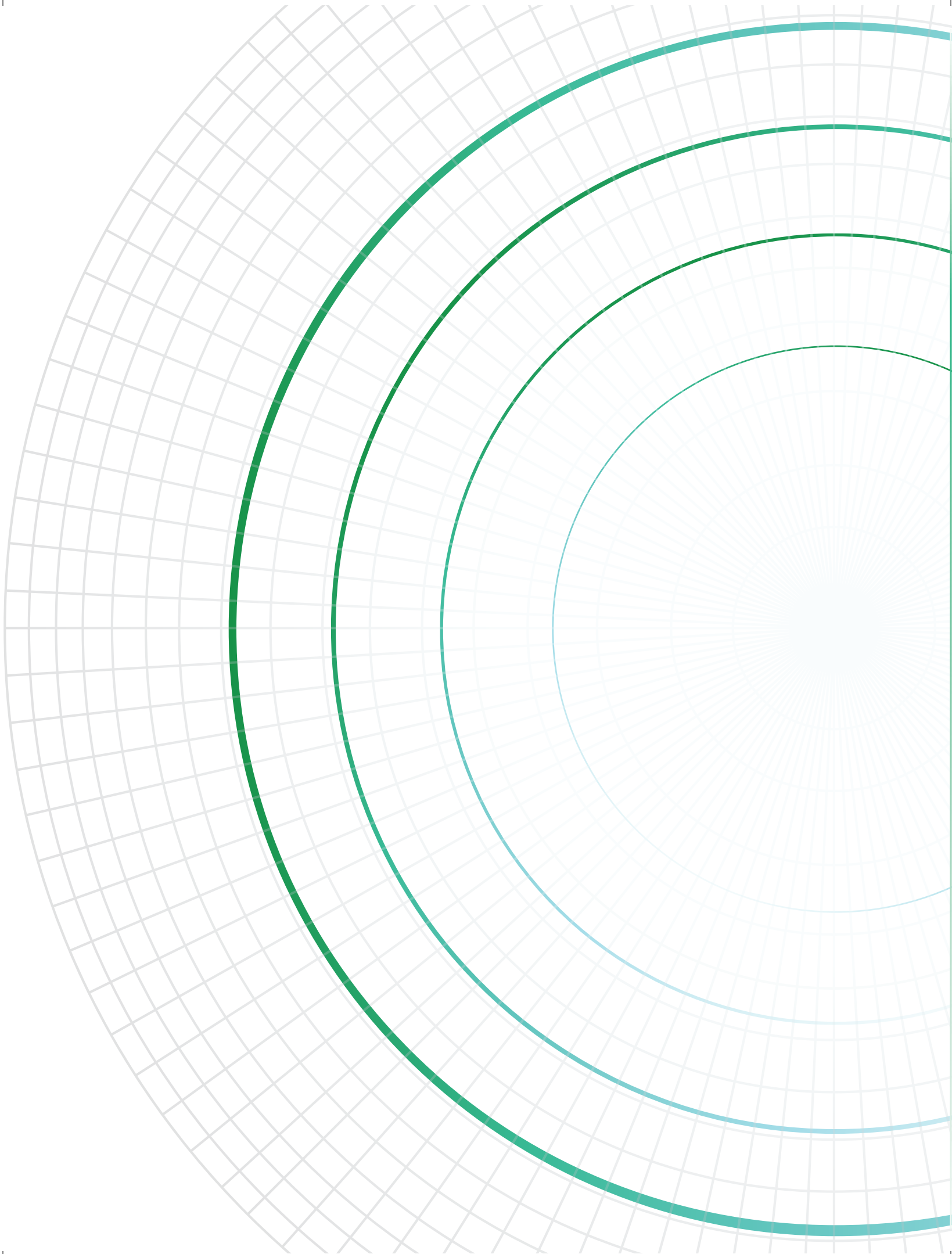
BINOCULAR PROGRESSIVE SYSTEM™

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CooperVision®



Key Points:

- Binocular Progressive System™ is an innovative technology system that utilizes various lens design pairing combinations to correct vision and provide clear vision at all distances, for all levels of presbyopia.^{1,2}
- Fitting patients with presbyopia is easy and successful with Binocular Progressive System™.¹
 - at least 83% of wearers can be fit with the final prescription with the first pair of lenses.¹
 - at least 98% of patients can be fit with two pairs of lenses or less.¹
- Binocular Progressive System™ is designed to give your patients with presbyopia the vision experience they once had.¹
- Binocular Progressive System™ is available in both MyDay® multifocal and clariti® 1 day multifocal 3 Add.
- In both MyDay® multifocal and clariti® 1 day multifocal 3 Add, Binocular Progressive System™ is paired with naturally wettable silicone hydrogel materials to support all day comfort for patients with presbyopia.¹

Introduction

It has been estimated that presbyopia affected 1.8 billion people or 25% of the world's population in 2015, and this is expected to be at least 2.1 billion in 2030.³ In 2022, 42.1% of the United States (US) population was aged 45 or older.⁴ As a result, increasingly more patients require presbyopic vision correction. A recent bibliometric study reported that multifocal contact lenses (MFCLs) have shown exponential growth, and this growth shows no signs of slowing.⁵

This ongoing growth is reflective of the interest in contact lens (CL) wear that has been reported among patients with presbyopia. In fact, it has been estimated that 44% new contact lens patients are starting their contact lens journey over the age of 40, representing the largest size of new to contact lenses fits.⁶ In a survey investigating the opinions and vision correction preferences among 496 presbyopic and pre-presbyopic individuals, 67% reported that they would prefer to wear CLs.⁷ Indeed, the authors concluded that “presbyopes of all refractive errors prefer CL correction, when good vision and comfort can be achieved.”⁷

Multifocal Performance: Vision and Comfort

Vision: Design Considerations

There are a number of factors that should be taken into consideration when choosing a MFCL design for the wearer with presbyopia. It has been well documented that aspheric center-near MFCL designs are generally well accepted in presbyopes.⁸⁻¹¹ However historically, patients with high levels of presbyopia have experienced poorer visual performance with aspheric design MFCLs.¹¹ A recent comprehensive review of contact lens correction for presbyopia noted that patients with high levels of presbyopia present a challenge that may be addressed by considering a change in design that increases the rate at which plus power is delivered across the lens in order to support their increased near demands.¹² Binocular Progressive System™ takes a unique approach to multifocal design to meet the evolving needs of patients with presbyopia as their presbyopia advances.

Binocular Progressive System™

To help meet the needs of patients with presbyopia at all stages of their presbyopic journey, CooperVision developed the Binocular Progressive System™. Binocular Progressive System™ is a 3 Add design that enables optimal vision at every distance.¹³ Found in both MyDay® multifocal and clariti® 1 day multifocal 3 Add, the Binocular Progressive System™ is an innovative multifocal system that uses different lens designs to optimize vision for all levels of presbyopia. [Figure 1]

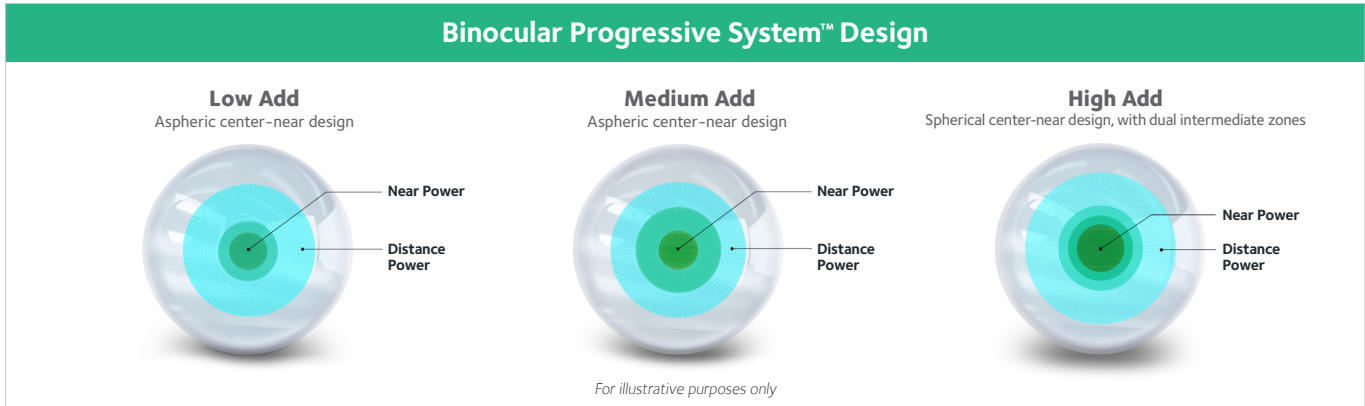


Figure 1. Binocular Progressive System™ design

For early presbyopes, the system combines two low Add aspheric center-near designs with a wide distance area and optical progression into the reading area, ideal for maintaining clear distance vision when transitioning into multifocal contact lenses. [Figure 2]

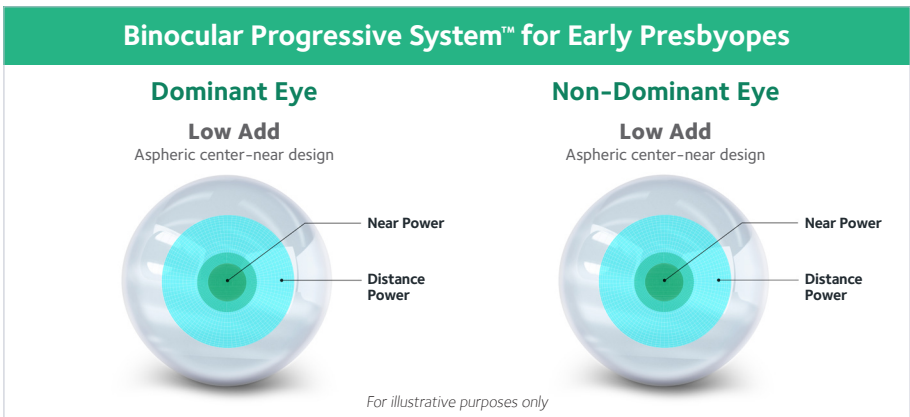


Figure 2. Binocular Progressive System™ for early presbyopes

For advancing presbyopes, the system combines the wide, clear distance vision of the low Add with increasing near support. In the aspheric medium Add design, the central reading area is strengthened and widened. [Figure 3]

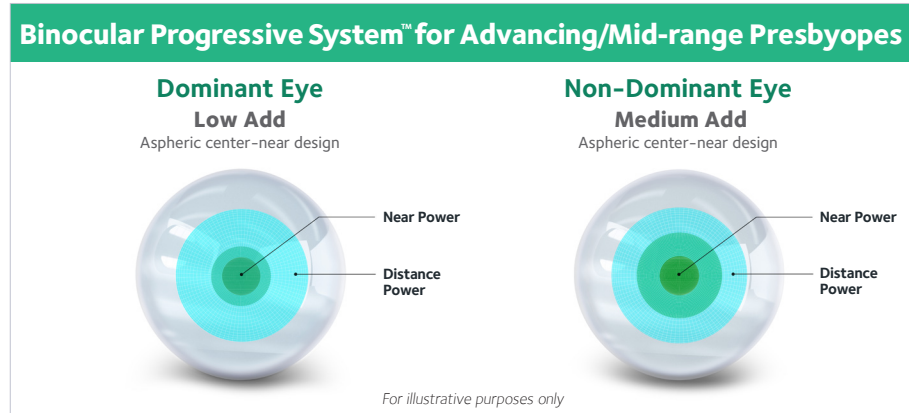


Figure 3. Binocular Progressive System™ for advancing/mid-range presbyopes

For later stage presbyopes, the system combines the wide, clear distance vision of the low Add with a high Add lens designed with a single powered, spherical center-near zone and dual intermediate power zones. For the spherical center-near design with dual-intermediate power zones, a single powered central reading zone is provided for those wearers who need the most help with their near vision. [Figure 4]

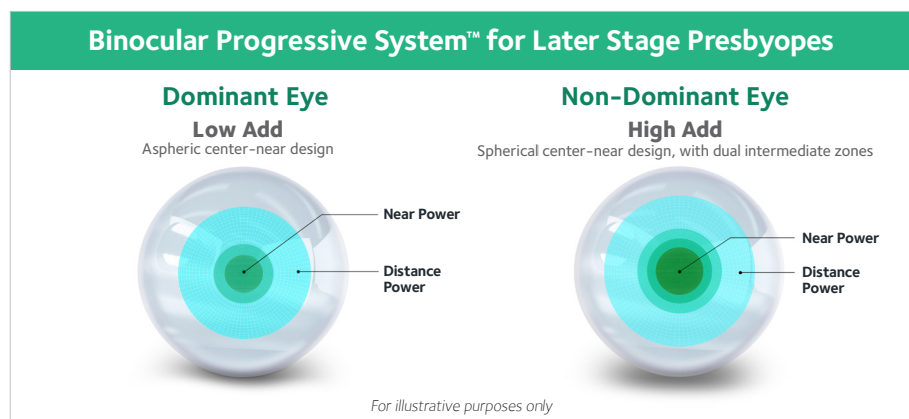


Figure 4. Binocular Progressive System™ for later stage presbyopes

The lens designs have been crafted to allow the eyes to work in tandem, which gives a simple initial fit and an easy progression as the near requirement increases.

The Binocular Progressive System™ is designed to help patients with presbyopia achieve the vision experience they once had. It offers these patients optimal visual acuity at all distances, even as their prescriptions and vision needs change.^{2,13}

Binocular Progressive System™

Binocularity

Binocularity is preserved with this innovative system, as was demonstrated in a 2022 study of MyDay® multifocal. Investigators determined that binocular vision status with MyDay® multifocal was maintained when compared to spectacle correction and also offered good visual acuity at distances ranging from 400cm to 40cm and for all Adds.¹⁴ [Figures 5,6]

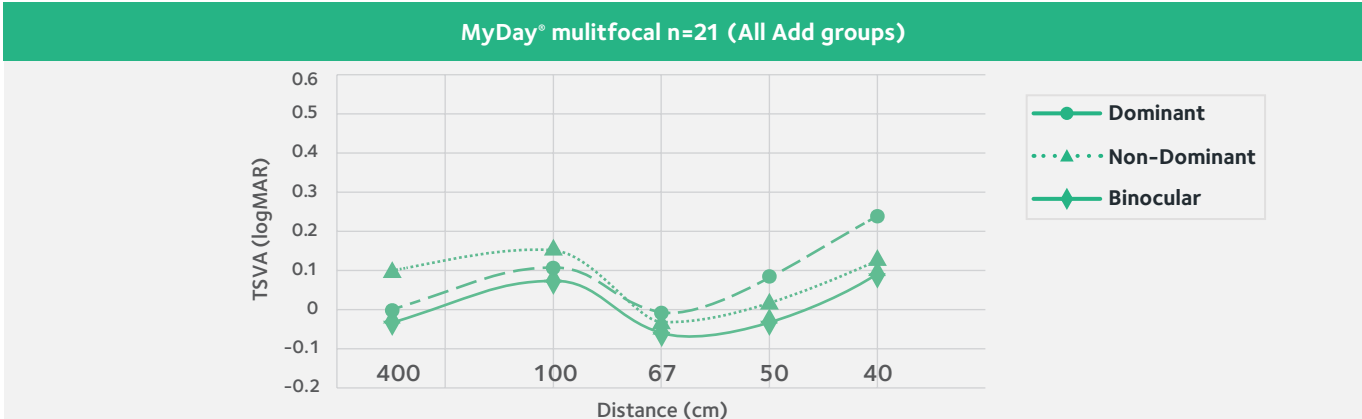


Figure 5. Monocular and Binocular Through Focus Curves (TFC) – Overall Population (logMAR VA at individual distances)¹⁴

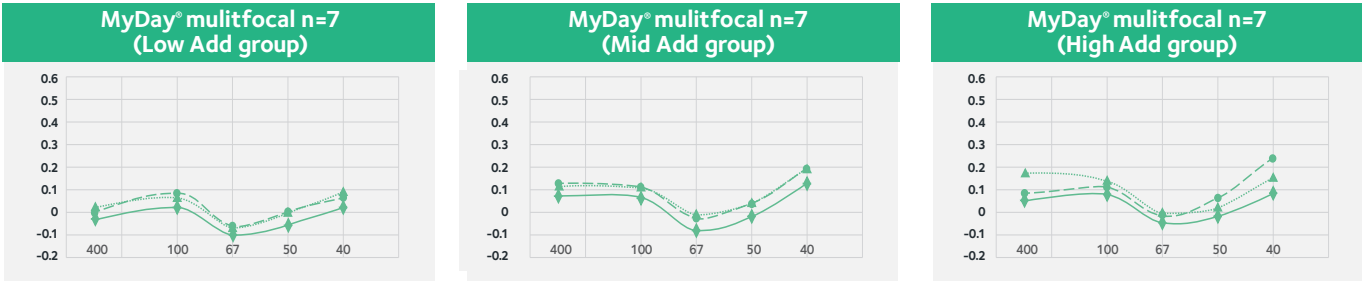


Figure 6. Monocular and Binocular TFC broken out for Low, Medium and High Add groups¹⁴

Simple Fitting Success

Patients expect a straightforward fitting process. In fact, in a global survey of patients with presbyopia, 67% of presbyopic soft contact lens wearers agreed that they don't want to sit through long appointments or go back to the ECP several times in order to get multifocal contact lenses that work for them.¹⁵

The Binocular Progressive System™ fitting guide was developed through a series of clinical trials, was validated in a randomized, controlled, clinical study, and is crucial to provide a fast and successful fit. It is strongly recommended to follow the steps described to increase success and help minimize chair time.

Fitting Binocular Progressive System™ is easy^{1,13} with a simple, 3-step fitting process:

1. Start with an up-to-date refraction.

2. Determine ocular dominance.
Use the +1.00D blur method. If inconclusive, use the sighting method.

3. Select Trial Lenses.
The guide always directs the LOW Add to the dominant eye, while the non-dominant eye receives either LOW, MEDIUM or HIGH Add based on the near addition. [Figure 7]

Initial Contact Lens Selection		
Spectacle Rx Add	Dominant Eye	Non-Dominant Eye
+0.75D to +1.25D	LOW	LOW
+0.50D to +1.75D		MED
+2.00D to +2.50D		HIGH

Figure 7. Binocular Progressive System™ lens selection



After asking patients to experience the lenses in a “real world” environment, vision assessment at all distances should be assessed binocularly under normal room illumination.

In the event that vision enhancement is required, the distance prescription needs to be adjusted either to the dominant eye for distance improvement, or non-dominant for near vision using a hand-held ($\pm 0.25D$) lens or flipper. Always keep in mind that the initial near Add selection (LOW, MEDIUM or HIGH) will remain unchanged.

Following the fitting guide allows a simple and straightforward fitting process. Its use helps achieve a high level of fit success with two pairs or fewer.^{1,16}

OptiExpert® – For Additional Fitting Support

There is another tool that supports CooperVision soft lens fitting even before the first lens is placed on eye. The OptiExpert® app has been developed to help with the initial lens selection for all CooperVision soft lens products including MyDay® multifocal and clariti® 1 day multifocal 3 Add. Simply enter the up-to-date subjective refraction and vertex distance in the OptiExpert® app and it will suggest the prescription for all lens options available for this specific patient. This tool could be used by optometric assistants to start the first conversation about MFCL options before the patient sits in the chair, and trial lenses can be prepared in advance. This means other practice personnel can be involved in the contact lens patient education and management process and may help reduce chair time.

Comfort: Material Considerations

As previously discussed, comfort is the second key factor that patients with presbyopia desire in their contact lens wearing experience. In the case of both MyDay® multifocal and clariti® 1 day multifocal 3 Add, the unique Binocular Progressive System™ is paired with naturally wettable silicone hydrogel material technologies to help support wearer comfort throughout the day. MyDay® multifocal leverages Aquaform® Technology: an innovative material technology that hydrates contact lenses to twice their weight in water¹⁷ for natural wettability and incredible comfort. Aquaform® Technology retains water from core to surface without the need for surface coatings or added wetting agents in the lens material.¹⁷ Wetloc® Technology, found in clariti® 1 day multifocal 3 Add, creates a naturally wettable contact lens that resists dehydration.*¹⁸ It locks in moisture and distributes water molecules throughout the contact lens, mimicking the moisture dispersion of naturally healthy eyes and keeping the contact lens and its surfaces continually moist throughout the day.

Performance

Binocular Progressive System™ debuted with MyDay® multifocal in 2021. At that time, a large observational survey was undertaken to determine eye care professional (ECP) and patient experience with the lens when prescribed in a real-world setting. Survey results reflected 1,505 initial fits and 1,440 follow-up visits in addition to 196 pre-fitting and 141 post-fitting ECP responses.¹⁹

ECP Satisfaction

When fitting multifocal contact lenses, ECPs said overall vision performance, comfort, and high fit success were most important. Initially, 71% of ECPs were either satisfied or extremely satisfied with the soft multifocal options available, but that number increased to 84% after they fit MyDay® multifocal.¹⁹

Overall, ECPs expressed a high level of satisfaction with MyDay® multifocal and achieved acceptable fits at the initial visit 95% of the time. Further, three-quarters of the initial lenses they selected were the final prescribed lens, with only 16% requiring an enhancement.¹⁹

When considering overall vision performance, 89% of ECPs agreed that the lens met or exceeded their expectations, and 96% said it met or exceeded their expectations for patient comfort. Additionally, a strong majority of ECPs said the lens had a high fit success rate and delivered ease and speed of fit. Most ECPs found the fit guide simple and easy to use, with 78% of responders relying on it for fits.¹⁹

*Absolute moisture retention 98.8%, relative moisture retention 97.8%

Patient Satisfaction

Patients were also happy with their MyDay® multifocal experience. Patient satisfaction ratings at both the initial and follow-up visits ranked higher than eight out of ten for comfort, vision, and overall satisfaction, as well as for vision experienced at near, intermediate, and distance. Overall, the study showed that MyDay® multifocal soft lenses met expectations across a wide range of patients, wear options, refraction types, and stages of presbyopia.¹⁹ [Figure 8]

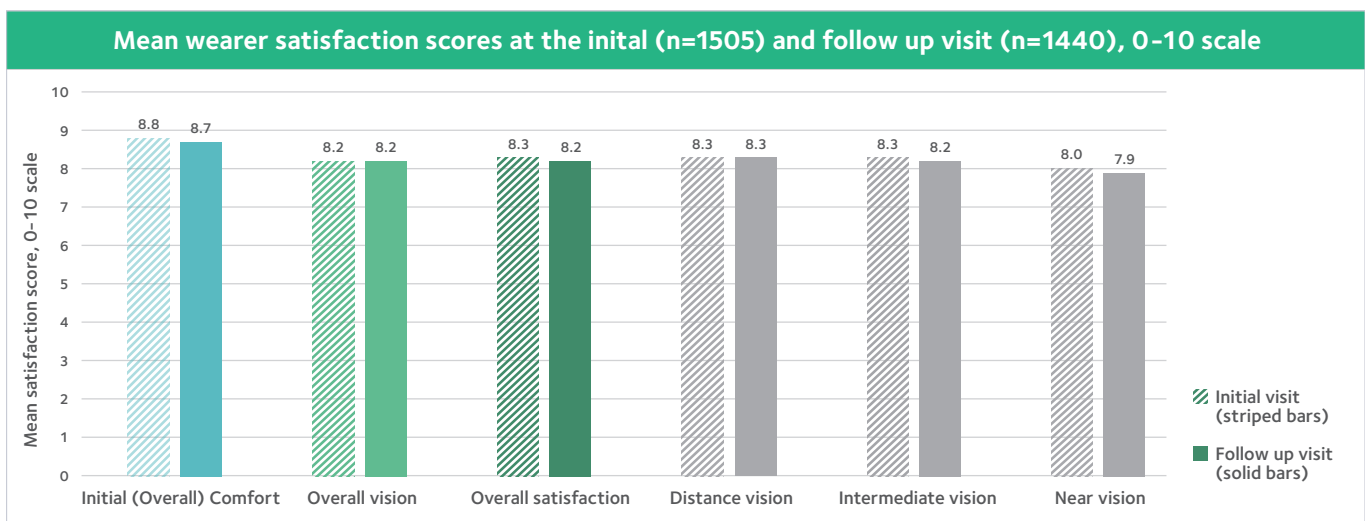


Figure 8. 1-10 scale; 1 not at all satisfied; 10 extremely satisfied¹⁹

Refractive Error and Wearer Considerations

Some ECPs may be concerned about not being able to achieve a successful fit in patients who have varying levels of ametropia. However, overall comfort, vision and satisfaction scores were high across the board for patients with myopia, hyperopia, and emmetropia, across the full range of Add powers, and whether the patient was a new or existing contact lens wearer.¹⁹ [Figure 9]

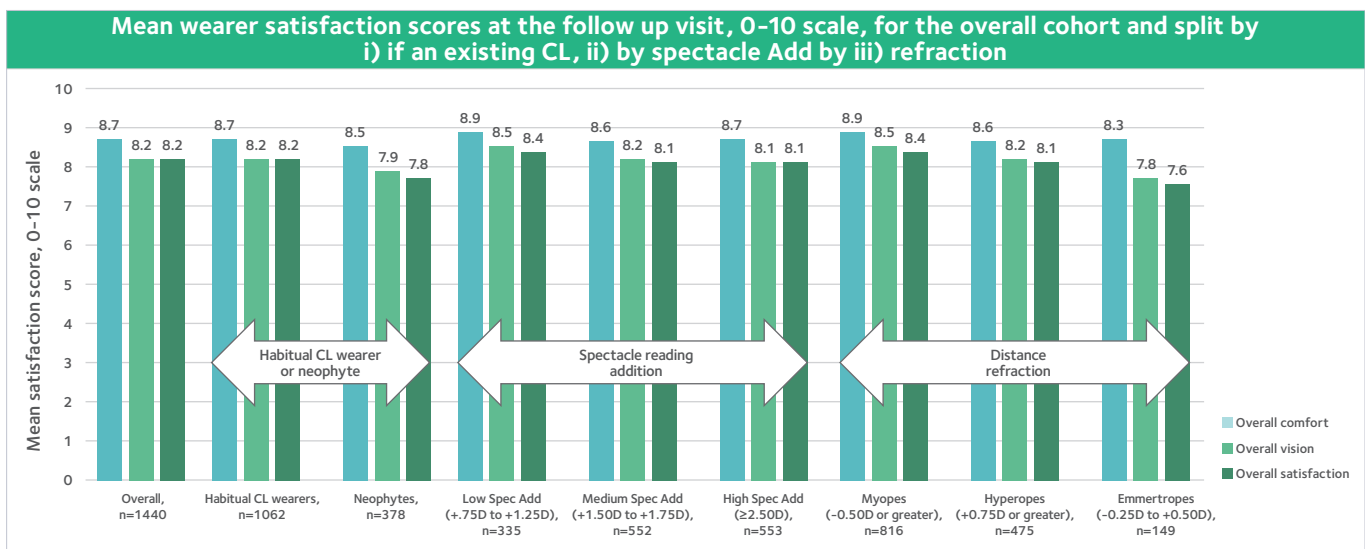


Figure 9. Mean wearer ratings for comfort, vision and overall¹⁹

clariti® 1 day multifocal 3 Add contact lenses are now available with the same advanced Binocular Progressive System™ featured in MyDay® daily disposable multifocal contact lenses.²⁰ clariti® 1 day multifocal 3 Add contact lenses also incorporate an optimized edge, designed to help provide good comfort.²¹ Clinical performance was again evaluated with similar outcomes to earlier results with MyDay® multifocal. [Table 1]





Vision	clariti® 1 day multifocal 3 Add provides very good vision satisfaction on fitting, overall, and at distance, intermediate and near. ²²	MyDay® multifocal provides good overall vision satisfaction with a rating of 80.1 out of 100. ¹
Comfort	Wearers of clariti® 1 day multifocal contact lenses with the CooperVision Binocular Progressive System™ rated their new contact lenses highly satisfying for overall comfort. ^{†21}	MyDay® multifocal provides good levels of comfort after 1 week of daily wear with a rating of 83 out of 100. ¹
Overall Satisfaction	Patients wearing clariti® 1 day multifocal 3 Add contact lenses with the CooperVision Binocular Progressive System™ reported good overall satisfaction with their lens-wearing experience. ^{†21}	MyDay® multifocal received high overall performance ratings from wearers. ^{§23}
Fitting Success (when following the fitting guide)	89% of wearers were fitted with the final prescription with the first pair of lenses.¹⁶ 100% of patients were successfully fitted with two pairs of lenses or less.¹⁶	83% of wearers were fitted with the final prescription with the first pair of lenses.¹ 98% of patients were fitted with two pairs of lenses or less.¹

Table 1. Patient experience with clariti® 1 day multifocal 3 Add and MyDay® multifocal for Vision, Comfort, Overall Satisfaction and Fitting Success

ECPs can experience a seamless fitting from original 2 Add optical design to the clariti® 1 day multifocal 3 Add with Binocular Progressive System™.²¹ In wearers who were refitted from the original 2 Add design to the upgraded clariti® 1 day multifocal 3 Add, wearers who upgraded:²¹

- had improvements in both distance and near visual acuity after 2 weeks daily wear†
- found their upgraded contact lens just as easy to handle**
- reported that the transition was easy‡
- reported a preference for the Binocular Progressive System™ design^

† Subject rating on a typical day at 2-week visit.
 § After wearing the lenses daily for a week during a U.S. observational survey with ECPs
 ¶ Distance logMAR VA -0.05 vs -0.02 (p < 0.01), near VA 0.06 vs 0.11 (p = 0.02) for BPS vs 2 Add respectively.
 ** At 2 weeks. Handling defined as application, removal and opening package.
 ‡ 62% rated the transition easy (very/somewhat), p<0.01.
 ^ After 2 weeks of daily wear.

Summary

With Binocular Progressive System™, the newest multifocal system from CooperVision, MyDay® multifocal and clariti® 1 day multifocal 3 Add contact lenses deliver a good vision experience at all distances for your patients with presbyopia as their eyes mature.^{1,2} For your patients fit with low and medium Adds, Binocular Progressive System™ offers a combination of aspheric center-near designs created to help ease your patients into multifocal contact lenses. For your patients with high Adds, the combination of aspheric and spherical center-near designs, with dual-intermediate power zones, help provide great distance vision while enhancing intermediate and near-vision needs. In both MyDay® multifocal and clariti® 1 day multifocal 3 Add, Binocular Progressive System™ is paired with naturally wettable silicone hydrogel lens materials to further support all day comfort for patients with presbyopia.¹

Brand	Material/ H ₂ O Content	Base Curve (mm)	Dia (mm)	Sphere Power	Add Power	FDA Group	Wearing Schedule	Dk/t† (at -3.00D)	Features
DAILY REPLACEMENT									
clariti® 1 day multifocal 3 Add 	somofilcon A / 56%	8.6	14.1	+8.00D to -10.00D (0.25D steps)	Low: +0.75D to +1.25D Med: +1.50D to +1.75D High: +2.00D to +2.50D	5B (SiHy)	Daily wear; 1 day replacement	86	Binocular Progressive System™ WetLoc® Technology Naturally Wettable High O ₂ Transmissibility UV Blocking†
MyDay® multifocal 	stenfilcon A / 54%	8.4	14.2	-10.50D to -12.00D (0.50D steps)		5B (SiHy)	Daily wear; 1 day replacement	100	Binocular Progressive System™ Aquaform® Technology Visibility Tint Naturally Wettable High O ₂ Transmissibility UV Blocking†

WARNING: UV-absorbing contact lenses are NOT substitutes for protective UV-absorbing eyewear such as UV-absorbing goggles or sunglasses because they do not completely cover the eye surrounding area. Persons should continue to use their protective UV-absorbing eyewear as directed.

NOTE: Long-term exposure to the UV radiation is one of the risk factors associated with cataracts. Exposure is based on a number of factors such as environmental conditions (altitude, geography, cloud cover) and personal factors (extent and nature of the outdoor activities). UV-absorbing contact lenses help provide protection against harmful UV radiation. However, clinical studies have not been done to demonstrate that wearing UV-absorbing contact lenses reduces the risk of developing cataracts or other eye disorders. Consult your Eye Care Practitioner for more information.

†+ (@ -3.00DS) x 10⁻⁹ [(cm/sec) x (ml O₂)/(ml x mm Hg)]

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CooperVision's Technology?

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