

# CLINICAL EXPERIENCE

With the Bausch & Lomb PureVision®  
Multi-Focal Contact Lens



**Bausch & Lomb**  
**PureVision®**  
Multi-Focal

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## with the Bausch & Lomb PureVision® Multi-Focal Contact Lens

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With the recent introduction of PureVision® Multi-Focal contact lenses many practitioners are realising the true potential of this innovative product to counter presbyopia. In this article, Dr G Cairns shares experiences with this lens from clinical development to launch into the market place.

### The presbyopic business opportunity

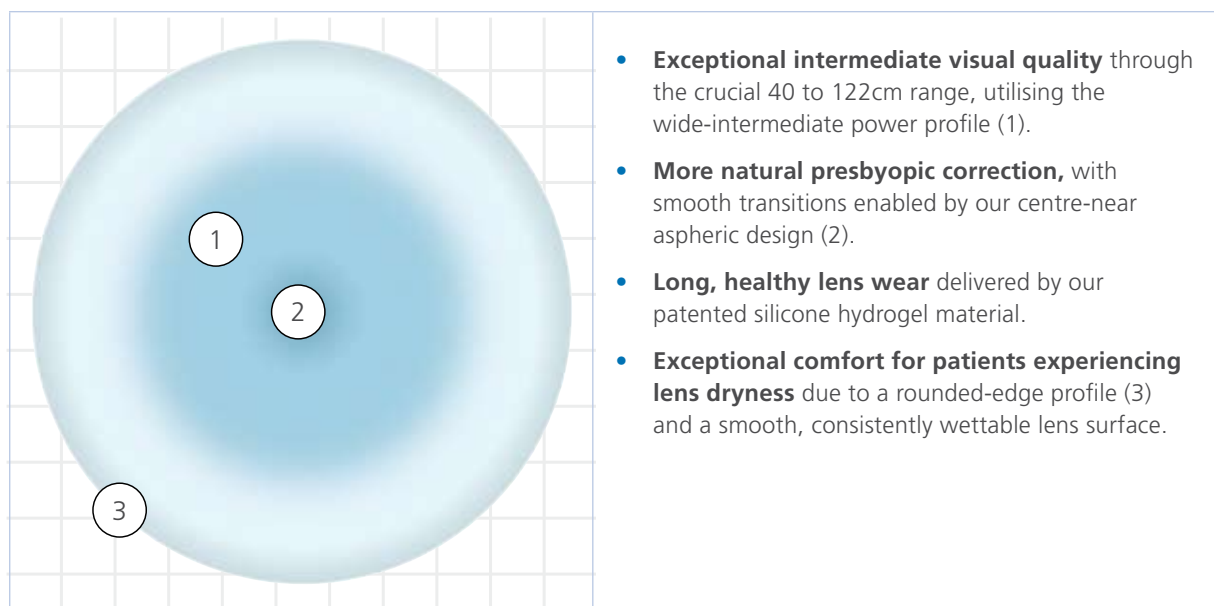
Our population is aging, this means that there is an increasing number of people who have their vision challenged by presbyopia. In Australia and New Zealand approximately 27% of the population are aged between 40 – 59 years and many of these people are concerned about needing reading glasses.<sup>1</sup> The onset of presbyopia is a major reason why even committed contact lens wearers may exit the contact lens market. This is not because they don't want to continue to wear contact lenses but often it is because many aren't aware that contact lenses are available to correct presbyopia.

*With advances in contact lens correction of presbyopia, its onset represents a significant opportunity for market growth.*

### Advancing the use of contact lenses in presbyopia

Presbyopia is a sophisticated problem and it requires a sophisticated solution. The ideal solution might include clear distance, intermediate and near vision, high contrast vision, uninterrupted vision between segments, no diplopia, uncompromised stereopsis and convenience. The PureVision® Multi-Focal design platform specifically addresses all of these concerns (Figure 1).

Figure 1: The Bausch & Lomb multifocal design platform



*Presbyopia is a sophisticated problem and it requires a sophisticated solution.*

# Lens design: focus on aberration control, centration and lens material

## Aberration control

Aberration control is important in multifocal correction of presbyopia as it allows improvements in depth of focus. This is achieved by modifying the asphericity of the anterior optical surface of the contact lens, effectively enhancing the prolate shape of the cornea, and controlling the amount of spherical aberration for every individual power of contact lens and providing negative spherical aberration across the power range.

Presbyopic corrections such as bifocal and trifocal lenses leave significant reduction in acuity in the intermediate range while lenses with spherical aberration control demonstrate improvements in focus across the entire distance range.<sup>2</sup> PureVision® Multi-Focal has been designed with spherical aberration control which can provide focus at a large range of distances.

## Centration

The PureVision® Multi-Focal lens design platform includes an aspheric progressive-power anterior surface with a centre-near power profile. We need to consider this with the physiology of the eye, we know that when fixating on a near target we converge, we accommodate (if possible) and the pupils constrict. With an aspheric centre-near design, when the pupil constricts with near fixation, the reduced optic portion of the lens has a near focus bias. This makes the PureVision® Multi-Focal contact lenses “pupil intuitive” and allows for “natural” and smooth transitions from far to near. This design philosophy is particularly effective especially when clinical research demonstrates that 98% of practitioners rated centration of PureVision® Multi-Focal lenses as “Excellent” or “Good”.<sup>3</sup>

## Continuous wear and ocular health

PureVision® Multi-Focal is made from a silicone hydrogel, high Dk/t material with a unique Performa™ surface treatment. The result is a wettable surface that resists protein and lipid deposits, further improving comfort and wearability.<sup>4</sup>

PureVision® Multi-Focal offers the same oxygen transmissibility as PureVision® spherical contact lenses which exhibit overnight corneal swelling equivalent to wearing no lens at all.<sup>5</sup> This allows patients to enjoy the long wearing times without compromising ocular health.

## Experience from clinical trials

### PureVision® Multi-Focal use by adapted SofLens™ Multi-Focal wearers<sup>6</sup>

This 2-week trial was designed to assess differences in comfort, ease of fit and satisfaction between the two lenses. PureVision® Multi-Focal delivered benefits to both practitioners and patients alike with:

- 99% of practitioners rated ease of fit of PureVision® as better or equivalent than SofLens™ Multi-Focal
- 69% of patients rating PureVision Multi-Focal® as better on both in terms of “overall comfort” and 72% agreed that they were “extremely satisfied with the lens”.

### PureVision® Multi-Focal use by adapted Monovision wearers<sup>3</sup>

The results of a particularly challenging test of PureVision® Multi-Focal amongst adapted monovision contact lens wearers, using a 30 day extended wear crossover design.

There may be preconceived notions that the use of aspheric optics in PureVision® Multi-Focal to focus distant and near objects can reduce the visual quality compared with monovision. Reassuringly, this clinical study determined no clinically significant differences in binocular visual acuity. Additionally, the aspheric optics that the PureVision® Multi-Focal is based upon has been proven to provide significantly superior stereo acuity.<sup>7</sup>

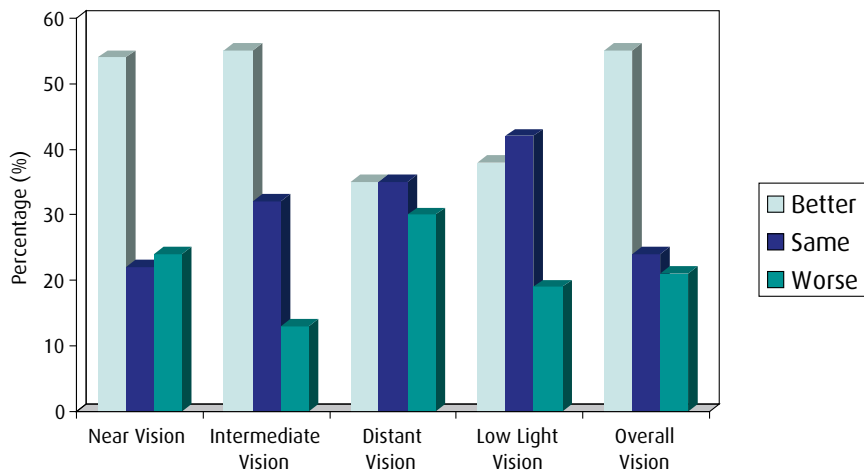
Studying the acceptance of PureVision® Multi-Focal in fully adapted monovision wearers provides us with further useful fitting guidelines. This study tells us that, although at the end of the study most subjects preferred PureVision Multi-Focal (52.5%), we should carefully select who is re-fitted with this lens. The research suggests that new presbyopic patients, patients wearing alternate multifocal lenses and patients who are not 100% satisfied with their current monovision correction are the candidates most suited to trial PureVision® Multi-Focal.

## Experience from Australia and New Zealand<sup>8</sup>

In 2006 a study involving 47 practitioners and 228 patients was conducted in Australia and New Zealand to assess PureVision<sup>®</sup> Multi-Focal contact lenses compared with the patient's previous form of presbyopic correction.

After being fitted with PureVision<sup>®</sup> Multi-Focal 94% of patients had distant binocular visual acuity of 6/7.5 or better, with 74% achieving 6/6 or better and 99% of patients who completed the study had binocular visual acuity of N5 or better for near vision. The majority of patients rated the overall vision with PureVision<sup>®</sup> Multi-Focal contact lenses as better or the same as their previous contact lenses (Figure 2).

Figure 2: Patient ratings of Bausch & Lomb's PureVision<sup>®</sup> Multi-Focal contact lenses compared to their previous contact lenses<sup>8</sup>

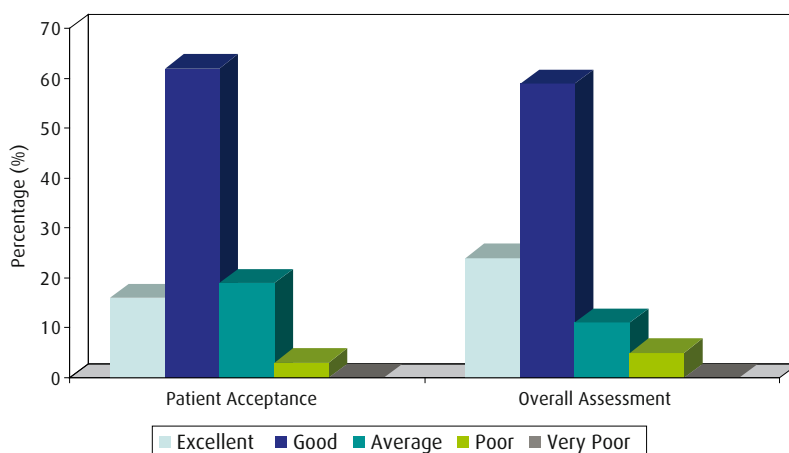


The most popular usage pattern for PureVision<sup>®</sup> Multi-Focal lenses was continuous use for 30 days. People wore the lenses essentially in the same manner that they said they had wanted to at study entry, hence PureVision<sup>®</sup> Multi-Focal met patient expectations in terms of freedom from spectacles.

Overall patient satisfaction with PureVision<sup>®</sup> Multi-Focal contact lenses was high with 67% of people being 'very satisfied' or 'satisfied', with a further 11% being neutral. Patient satisfaction was reinforced by a high 'intention to repurchase' at 66%.

Four out of 5 practitioners rated their overall assessment of the PureVision<sup>®</sup> Multi-Focal lenses as good or excellent and 78% of practitioners rated overall patient acceptance of the lenses as good or excellent (see Figure 3).

Figure 3: Practitioner ratings of Bausch & Lomb's PureVision<sup>®</sup> Multi-Focal contact lenses<sup>8</sup>



*81% of practitioners rated the overall assessment of PureVision<sup>®</sup> Multi-Focal as excellent or good.<sup>8</sup>*

# Q&A

A number of optometrists from Australia and New Zealand who participated in the local study on the Bausch & Lomb PureVision® Multi-Focal contact lenses were asked to provide additional feedback on their experience. The opinions expressed in these interviews are not necessarily those of the sponsor.

## Mr Bruce Don, Sydney

**Why is the multi-focal contact lens category important in your practice?**

In my practice, the number of patients with presbyopia continues to grow each year and these people are looking for simple contact lens solutions for their vision problems.

**How were you managing your presbyopic patients who wanted contact lenses before you started using Bausch & Lomb's PureVision® Multi-Focal?**

Previously for presbyopes I would fit either J&J Bifocals or Bausch & Lomb's SofLens™ Multi-Focal contact lenses.

**Has that practice changed since you have started using Bausch & Lomb's PureVision® Multi-Focal?**

Absolutely, yes! I have found great success with PureVision® Multi-Focal especially for those with low distance prescriptions.

**How do Bausch & Lomb's PureVision® Multi-Focal lenses compare with Bausch & Lomb's SofLens™ Multi-Focal contact lenses?**

My patients have experienced better all day comfort and for me this comes with the added benefits of extended wear and only one base curve.

**What would you describe as the key benefit(s) of Bausch & Lomb's PureVision® Multi-Focal contact lenses?**

There are multiple benefits with PureVision® Multi-Focal including improved comfort, good stable vision, distance and near. Patients also experience quick adaptation and the benefit of extended wear.

**What feedback have you had from your patients about Bausch & Lomb's PureVision® Multi-Focal contact lenses?**

They love them and they usually purchase them straight away or after a few days trial. I find they also tell their friends how great their new contact lenses are.

**How did you manage your patients' expectations of the lens?**

I don't oversell the lenses but I let the lens sell itself. In addition I always check visual acuity binocularly, never monocularly.

*"PureVision® Multi-Focal met and exceeded my expectations"*

## Ms Sue Trewin, OPSM, Melbourne

**What are the major concerns of your presbyopic patients?**

My typical presbyopic patient is frustrated with their dependence on spectacles. They want to continue to look young and they desire freedom from glasses.

**How were you managing your presbyopic patients who wanted contact lenses before you started using Bausch & Lomb's PureVision® Multi-Focal?**

My main methods of presbyopic correction were prescribing disposable multifocal contact lenses, monovision or distance contact lenses with reading spectacles.

**How do Bausch & Lomb's PureVision® Multi-Focal lenses compare with other multifocal/bifocal or progressive contact lenses you have used?**

I have found that if the base curve is appropriate the vision is excellent. I also find that the handling is easier than most other brands due to the silicone hydrogel material.

**How do monovision wearers respond to Bausch & Lomb's PureVision® Multi-Focal lenses?**

I have experienced mixed reactions depending on eye dominance and binocularity. Frustrated monovision patients do well and happy monovision patients tend to prefer their current correction.

**How do Bausch & Lomb's PureVision® Multi-Focal lenses compare with monovision for presbyopic correction?**

My experience is that they are much better in terms of stereopsis. This makes a big difference when playing sport, driving and for everyday mobility.

**How do you select a successful Bausch & Lomb's PureVision® Multi-Focal patient and who would you not recommend the lens to?**

Successful candidates for the PureVision® Multi-Focal are those patients who understand how the multifocal lens works and who are prepared to accept a slightly lower quality of vision for the convenience of a multifocal. I would not recommend this lens to people whose expectations are unrealistic. I would not use the lenses with wearers who have more than 0.75D of astigmatism.

**How do you pitch multifocal contact lenses to your presbyopic patients for greatest success?**

For existing contact lens wearers I position multifocals as a natural progression, just like moving from single vision spectacles to multifocal spectacles. For new contact lens wearers, multifocal contact lenses are an alternative to spectacles for travel, sport and social use.

## Mr David Stephensen, Brisbane

### Why is the multi-focal category important in your practice?

The presbyopic patient represents a major avenue for growing my contact lens practice. It is a significant source of new contact lens wearers.

*"I think that PureVision® Multi-Focal is a far superior option when compared to monovision. Patients appreciate the comfort of using both eyes to see at all distances."*

### How do monovision wearers respond to Bausch & Lomb's PureVision® Multi-Focal lenses?

In general, monovision contact lens wearers convert very successfully to PureVision® Multi-Focal. I find it is a useful solution for issues of intermediate vision such as viewing computer screens.

*"This lens requires little effort and little chair time to fit."*



### What would you describe as the key benefit(s) of Bausch & Lomb's PureVision® Multi-Focal contact lenses?

In my experience, the key benefits of PureVision® Multi-Focal are clearer vision at all distances, improved oxygen transmission, ease of use and the choice of addition power.

### How do you select a successful Bausch & Lomb's PureVision® Multi-Focal patient?

I don't think that there should be a pre-selection process. I try them with any presbyopic patient who is interested.

### What was your experience with chair time with this lens?

I found it was really quite hard to keep the patients in the chair once they realised how well they could see. This lens requires little effort and little chair time to fit.

## Mr Jason Holland, Optical Superstore, Holland Optical, Brisbane

### How were you managing your presbyopic patients who wanted contact lenses before you started using Bausch & Lomb's PureVision® Multi-Focal?

I manage presbyopic patients primarily with multifocal contact lenses. If the multifocal lenses are unsuccessful, I return to monovision.

### Has that practice changed since you have started using Bausch & Lomb's PureVision® Multi-Focal?

The way I practice is similar, but now I use PureVision® Multi-Focal as my first choice. When initiating new wearers I often allow the patient a few nights of extended wear, where I insert and remove the lenses for the patient.

### How do monovision wearers respond to Bausch & Lomb's PureVision® Multi-Focal lenses?

Previous monovision patients welcome improvements in depth perception, especially when it comes to driving and participating in sporting activities.

*"My patients love the vision and their new found freedom from glasses."*

### How did you manage your patients' expectations of the lens?

I don't actively manage patient expectations but I let them experience the lens in the real world for themselves. After initial selection of the trial lenses, I review the patient after 1 to 2 weeks so they have time to adapt to the new visual experience.



## Mr Emmanuel Calligeros, EYECee, Sydney

### What are the major concerns of your presbyopic patients?

My patients are mainly concerned about being able to see distance and near comfortably without glasses.

### How do Bausch & Lomb's PureVision® Multi-Focal lenses compare with monovision for presbyopic correction?

In my practice, monovision contact lenses are my first choice contact lens correction of presbyopia. I find that PureVision® Multi-Focal are better suited for patients that cannot adapt to monovision or for patients who are amblyopic in one eye. However I don't believe they are better for successful monovision patients.

### What was your experience with chair time with this lens?

I found chair time was minimal, it either works or it doesn't work. PureVision® Multi-Focal fits most corneas well.

### What would you describe as the key benefit(s) of Bausch & Lomb's PureVision® Multi-Focal contact lenses?

PureVision® Multi-Focal has the dual advantages of a high Dk/t lens with a good multifocal design.

### What feedback have you had from your patients about Bausch & Lomb's PureVision® Multi-Focal contact lenses?

The patients who were previous multifocal contact lens wearers generally found it better than their previous lens. I also found that some patients who were previously unsuccessful using monovision were now successful with PureVision® Multi-Focal.



## Ms Naomi Meltzer, Barry and Beale, Auckland New Zealand

### How do Bausch & Lomb's PureVision® Multi-Focal lenses compare with other multifocal/bifocal or progressive contact lenses you have used?

I have found that PureVision® Multi-Focal gives presbyopic patients both excellent vision and comfort. I have found these lens to be very 'practitioner friendly'.

*"PureVision® Multi-Focal gives patients excellent vision and comfort, and they are very practitioner friendly."*

### What feedback have you had from your patients about Bausch & Lomb's PureVision® Multi-Focal contact lenses?

The feedback that I have received has been very positive. People describe PureVision® Multi-Focal as "Fantastic", "Brilliant" and "Life changing". What more can you ask for?

### How did you manage your patients' expectations of the lens?

I under-promise and expect to over-deliver. I always tell presbyopic patients that they need to be prepared to compromise some visual acuity. No lens, contact or spectacle will give them back the vision they had thirty years ago. Our aim is to find an acceptable compromise between distance and near vision.

### What was your experience with chair time with this lens?

I found that the chair time was similar as for other single vision extended wear contact lenses and generally less than with other multifocals contact lenses.

### Did Bausch & Lomb's PureVision® Multi-Focal contact lenses meet or exceed your expectations?

PureVision® Multi-Focal contact lenses exceeded my expectations, I naturally expected a silicone hydrogel version of the SofLens™ Multi-Focal but the optics of PureVision® Multi-Focal are definitely superior, probably because of better aberration control.

## Ms Sally Atkins, Sydney

### How were you managing your presbyopic patients who wanted contact lenses before you started using Bausch & Lomb's PureVision® Multi-Focal?

In my practice I mainly fitted Bausch & Lomb's SofLens™ Multi-Focal contact lenses for presbyopes. For some patients I also use daily disposable multifocal contact lenses. If a patient is unsuccessful with a multifocal correction I then try monovision contact lenses.

### Has your practice changed since you have started using Bausch & Lomb's PureVision® Multi-Focal?

Yes, PureVision® Multi-Focal is now my contact lens of choice for presbyopes.

### How do you pitch multi-focal contact lenses to your presbyopic patients for greatest success?

I explain that the best vision with multifocal correction is binocular. I establish realistic expectations for vision with multifocal contact lenses compared to what can be achieved with glasses. Essentially I offer multifocal contact lens correction to new presbyopic contact lenses wearers and sometimes to those currently using modified monovision.

### Did Bausch & Lomb's PureVision® Multi-Focal contact lenses meet or exceed your expectations?

I was a little disappointed initially with visual acuity compared to SofLens™ Multi-Focal contact lenses, however this was based on a small sample. My perceptions of visual acuity are changing with the more experience. Overall, PureVision® Multi-Focal appears to be meeting my expectations.

## Mr Phil Hogan, Special Eyes, Perth

### What are the major concerns of your presbyopic patients?

The two main things my presbyopic patients are seeking is a more natural vision and a reduced dependence for their spectacles.

### How do Bausch & Lomb's PureVision® Multi-Focal lenses compare with Bausch & Lomb's SofLens™ Multi-Focal contact lenses?

Overall, I found the PureVision® Multi-Focal contact lenses to be the same or slightly better than SofLens™ Multi-Focal. Transition to PureVision® Multi-Focal was very smooth with the option of extended wear.

### What would you describe as the key benefit(s) of Bausch & Lomb's PureVision® Multi-Focal contact lenses?

PureVision® Multi-Focal offers flexibility, flexibility for overnight wear and long daily wear.



*"My patients are impressed with the more natural vision and their new freedom from spectacles."*

# Bausch & Lomb PureVision® Multi-Focal for...

- Natural, crisp vision at every distance — especially in the critical intermediate range
- The long wearing times they demand — and the ocular health benefits that you demand
- Exceptional comfort — with a consistently smooth, wettable, clean lens surface

## Fitting parameters

<b>Material</b>	balafilcon A (silicone hydrogel)	
	Water Content	36%
	Oxygen Transmissibility (Dk/t)	112 (Non-Edge Corrected at -3.00D)* 101 (Edge-Corrected)
<b>Powers</b>	+6.00D to -10.00D in 0.25D steps	
	ADDs:	LOW: up to +1.50D HIGH: +1.75D to +2.50D
<b>Design</b>	Base Curve	8.6 mm
	Diameter	14.0 mm
	Optic Zone	8.0 mm @ -3.00D
	Centre Thickness	0.09 mm @ -3.00D
<b>Features</b>	Visibility Tint	Light blue
	Indications	Daily wear or up to 30 days continuous wear
	Inversion Indicator	Yes (B&L)

\* Polargraphic method (boundary corrected)



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