OPTOMETRY SEPTEMBER 2021 CONNECTION

Contact Lenses Resource Guide 2021

BCLA CLEAR reports: Highlights of 2021

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*When using the fitting guide.

References: 1. CooperVision[®] data on file, 2021. Prospective, subject-masked, randomised, bilateral, two-week dispensing study at 5 US sites with MyDay[®] daily disposable multifocal; n=58 habitual multifocal contact lens wearers. 2. CooperVision[®] data on file, 2020. Prospective, double-masked, bilateral, one-week UK dispensing study with MyDay[®] daily disposable multifocal; n=104 habitual multifocal contact lens wearers. MyDay[®] and CooperVision[®] are registered trademarks of the Cooper Companies, Inc. and its subsidiaries. EMVCO00757 ©2021 CooperVision.



From the editors

September 2021

Welcome to a very special issue of Optometry Connection, featuring the 2021 update of Optometry Australia's Contact Lenses Resource Guide. We are very pleased to bring this important resource to you, our members.

Given the variety and complexity of products available today, you have made it very clear this guide is a valuable tool in everyday practice.

"I got so excited when this contact lens guide hit my desk back in 2019," Dr Heidi Hunter, National Board Member of the Cornea and Contact Lens Society of Australia, told Optometry Connection.

"Before then, my reference manual was an old Optometry Australia contact lens guide from 2013 which was covered in my scribble trying to keep abreast of all the new products and parameter changes over the years. I use this resource several times every week in our practice, and our staff use it too."

Inside you will find all the latest information and products to help you compare like-for-like in a straightforward and accessible manner. This includes everything from silicone hydrogel lenses, toric and multifocal options, to a summary table of rigid, orthokeratology and soft myopia control lenses.

Sticking to the theme, this edition also features CPD articles detailing the latest developments and research on contact lens design and application. You will be able to gain three CPD hours by completing this issue's multiple-choice questions on our website.

We would like to thank all our advertisers and sponsors, particularly our premium sponsor Alcon, who have provided the information and funding to make this guide possible.

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*PRECISION1" is a daily disposable contact lens and is not intended for extended wear. **Reference: 1.** Cummings S, Giedd B, Pearson C. Clinical performance of a new daily disposable spherical contact lens. *Optom Vis Sci.* 2019;96:E-abstract 195375.

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LENS PARAMETERS

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Highlights from the BCLA CLEAR Reports of 2021

April 2021 saw the publication of 10 papers in the British Contact Lens Association (BCLA) journal *Contact Lens and the Anterior Eye* collectively known as the Contact Lens Evidence-based Academic Reports (CLEAR). The intention of these papers is to combine evidence and develop consensus on topics that may previously have been lacking, in order to provide a resource that can be used by eye care practitioners (ECPs) to inform clinical practice with evidence-based knowledge.¹

As one can imagine, the reports are detailed and comprehensive – this article will touch on some of the highlights from five of the 10 reports, and will hopefully serve to whet the appetites of practitioners and encourage reading of the full reports. The five reports highlighted will be:

- Contact lenses wettability, cleaning, disinfection and interaction with tears
- Effect of contact lens materials and design on the anatomy and physiology of the eye
- Contact lens optics
- ➔ Contact lens complications
- → Evidence-based contact lens practice

Optometrists are strongly recommended to read the full reports in their own time as there are other exciting reports such as Contact Lens Technologies of the Future², which details possible developments in the contact lens world that go beyond simply correcting vision. These other reports, while not mentioned in these highlights, are not to be missed.

Contact lenses wettability, cleaning, disinfection and interactions with tears³

This report covers not only the factors that affect the wettability of contact lenses, but how these factors can also affect the lenses' interactions with tears. It also covers how cleaning solutions interact with lenses and may ultimately affect wettability and the lens surface.

Wettability is defined by the report as "the ability of a liquid deposited on a solid surface (or the surface of another immiscible liquid) to spread out and maintain contact with the surface". The wettability of a contact lens is dependent on many factors: the inherent wettability of the material of the lens (which can be manipulated using internal and external wetting agents), deposition of both lipids and proteins on the surface of the lens, and the cleaning system used with the lens, where applicable. It is interesting to note that while wettability of a contact lens has been shown to have a direct impact on the biocompatibility of contact lens wear, studies so far have not shown any direct correlation between contact lens wettability and lens comfort. There has been a lot of attention placed on the wettability of newer contact lenses, both reusable and daily disposable lenses: part of this comes from the fact that the wettability of contact lenses saw a major shift when silicone hydrogel (SiHy) technology was introduced into the market. This is due to the inherently hydrophobic nature of silicone and siloxanes, which can also encourage greater deposition of proteins on lens surfaces at greater rates compared to hydrogel materials which further increases hydrophobicity. These factors in SiHy lenses can generally be countered with wetting agents and surface treatments to maintain contact lens wettability, as well as careful selection of cleaning systems. The different adsorption of tear film components to lenses depends not only on the properties of the lens material, but also the makeup of the wearer's tear film, which can vary between individuals.

Cleaning systems can have a significant effect on the comfort and wettability of a contact lens, often producing improvements in contact lens comfort and wettability that are significantly longer-lasting than those produced by rewetting drops. While the primary action of a lens care solution is cleaning/disinfection of the lens, the effect it has on the wettability of the lens surface and the stability of the tear film should be considered in those patients symptomatic for contact lens discomfort. This is highlighted by the improvement in tear film stability demonstrated in a study that switched symptomatic patients to a hydrogen peroxide lens care system – after three months there was an improvement in the hydrogen peroxide lens care group compared to two other cohorts using their habitual lens care system and a multipurpose disinfecting solution (MPDS) containing polyhexamethylene biguanide (PHMB). That being said, there is inconsistent evidence regarding the superiority of various MPDS lens care systems in various competitive studies.

Cleaning systems can have a significant effect on the comfort and wettability of a contact lens

In terms of the effectiveness of lens care systems, hydrogen peroxide lens cleaning systems are still considered the gold standard for lens disinfection, but are a small proportion of the lens care systems used overall. Povidone-iodine lens care systems also display great disinfecting efficacy, but are not currently commercially available in Australia. When evaluating the disinfecting efficacy of six different MPDS in the presence of lenses against various pathogens, all solutions demonstrated reduced efficacy against *Candida albicans*. The polyquaternium-1/ myristamidopropyl dimethylamine combination MPDS was the only one to not show reduced efficacy against any other challenge pathogens, even in the presence of lenses.

Current studies on the wettability and biocompatibility of contact lenses during wear are inconclusive and inconsistent – this probably has to do with the fact that there is no standard of classification as to what constitutes symptomatic and asymptomatic lens wearers. There are also various ways to measure the different properties that may affect the lenses interaction with the tear film that have not yet been standardised.

Effect of contact lens materials and designs on the anatomy and physiology of the eye⁴

This report outlines changes to the ocular surface caused by contact lenses and their degree of clinical significance. The ability of contact lenses to change axial length is also summarised but omitted in this article.

The report highlights the importance of establishing a pre lens baseline to compare for changes in conjunctival hyperaemia due to contact lens wear. Although often overlooked, bulbar and limbal hyperaemia is a common response to contact lens wear and a sign the eye is experiencing stress. The most common causes for hyperaemia include mechanical interactions by either a tight- or loose-fitting lens or lens edge design, surface deposits, post lens hypoxia, instable tear film, lens care solutions and ocular hygiene. Reduced tear stability may cause increased friction from the lens surface and can be improved by changing lens material.

The two most common types of conjunctival staining noted in soft contact lens wearers are dryness related, primarily located on the nasal and temporal bulbar conjunctiva and mechanical circumlimbal staining. In comparison to rounded edge designs, knife edge designs have been shown to produce higher levels of lens edge staining. Conjunctival staining induced by the lens edge is rarely symptomatic or accompanied by hyperaemia and therefore does not necessarily require changing the lens. However, conjunctival indentation, which is clinically observed by pooling of fluorescein corresponding to the lens edge position, has been associated with poorer comfort. This can be managed by changing to a lens with a thinner edge design and/or lower modulus.

Within the literature, there is no consensus on the impact of contact lenses on the meibomian glands. However, most recent research suggests contact lens wear is not associated with meibomian gland atrophy but is associated with meibomian gland function. The melting point of meibum in soft and hard contact lens wearers has been shown to be 3 degrees higher than non-contact lens wearers.

The literature is in agreement regarding lid-parallel conjunctival folds (LIPCOF) being a possible sign of contact lens discomfort. A contact lens splits the tear film into a pre and post lens film, altering normal spreading and tear stability and subsequently causing increased friction between the eyelid and ocular surface. Therefore, improving contact lens wettability would in turn improve the pre lens tear film, reducing friction and presence of LIPCOF. There is limited research regarding the effects of different contact lens materials and designs on LIPCOF. The recommended management of LIPCOF in contact lens wearers is changing to a contact lens with improved wettability or the use of ocular lubricants.

The literature is in agreement regarding lid-parallel conjunctival folds being a possible sign of contact lens discomfort

Desiccation staining is the most common type of corneal staining in contact lens wearers. This represents where the tear film is the thinnest/ least stable. Management for low to moderate levels of desiccation staining includes blinking training, ocular lubricants, reduced wearing time or the use of dehydration resistant materials. Solution-induced corneal staining (SICS) is usually peripheral and characteristically follows a circular pattern although in severe cases it can involve the entire cornea. Severe cases may be associated with reduced comfort and an increased incidence of infiltrative events. Suggested management is using non-PHMB based solutions, hydrogen peroxide-based systems and the inclusion of rub and rinse step to help eliminate biocides from lens surface.

Contact lens optics⁵

As summarised in this report, one of the most important aspects of a contact lens are the optics, as quite often the primary function of the lens is to refract light to the clinical benefit of the wearer. The optical needs of the eye also change over time, as the optics of the human eye do not remain static over a person's lifespan (even considering an emmetropic eye without the development of refractive error such as myopia). It is interesting to note that early in life, during young and middle adulthood, the crystalline lens optics effectively cancel most of the higher-order aberrations of the cornea so that the optics of (an emmetropic) eye are optimised. It is from the fourth decade of life onwards that lens changes begin to occur, and higher order aberrations (starting with spherical aberrations beginning in the fourth decade and other higher order aberrations from the sixth decade onwards) occur, which ties in with the approximate age that the optical system changes with the reduction of accommodative power of the eye.

Lenses to correct spherical refractive error (generally hyperopia or myopia with minimal astigmatism) are generally the simplest, particularly historically when they were made with spherical anterior and posterior surfaces. However, these lenses with spherical posterior and anterior surfaces produce levels of spherical aberrations that increase linearly with the power of the lenses, meaning that the levels of spherical aberration noted, particularly for higher lens powers, can have a negative impact on contact lens wearers' vision. Spherically-surfaced lenses also have a tendency to decentre on the cornea, relative to the line of sight, which produces further aberrations such as coma, glare and flare, dependent on the amount of decentration. In order to combat decentration and the spherical aberrations produced, many of the soft lens companies use aspheric optics. This can be done in two different ways: either by aiming to produce a lens with no spherical aberrations, or a lens that counteracts the natural spherical aberration on an "average" eye with relaxed accommodation. There is not sufficient evidence to indicate superiority of either of these methods over the other.

In the case of rigid lenses these spherical lenses can create a tear lens which can correct up to approximately 2 dioptres (D) of astigmatism. While there are individual reports of "masking" up to 1D of astigmatism with soft contact lenses, which we know tend to conform to the shape of the cornea, studies have shown that the visual acuity of patients with 0.75D of astigmatism or more can be improved by using soft toric lenses. Most soft toric lenses tend to contain the spherical power required on the front surface and the toric power on the back surface, although they employ different methods of stabilisation (as the lens needs to be rotationally stable on the eye to correct the astigmatism at the desired axis). In a comparison between prism ballast, peri-ballast and dual thin zone/slab off/dynamic stabilisation methods it was found that prism ballast designs induce more prism, usually vertically within the optic zone. The dual thin zone/slab-off/dynamic stabilisation methods induce little or no prism and allow for a thinner lens compared to other designs.

There are many lens designs available for correcting presbyopia, which can be grouped into several categories. Alternating designs are not often employed in soft contact lenses, due to visual discomfort and so the simultaneous designs listed in Table 1 are more common. Comments on the visual performance of different lens types are listed in the table.

Contact lens complications⁶

The report defines contact lens complications (CLC) as an event caused by contact lens wear, which is generally symptomatic, causing the wearer to seek care, or requiring intervention, such as interruption to contact lens wear or pharmacological intervention.

Complications can be grouped into corneal infection, corneal inflammation, metabolic conditions, mechanical, toxic and allergic disorders; tear resurfacing disorders/dry eye or contact lens discomfort (Table 2).

Given that discomfort remains the most common reason for an established wearer to drop out of contact lenses, this summary focuses on notable findings on mitigating contact lens discomfort (CLD).

According to the literature, 31-58% of contact lens wearers report symptomatic CLD. Risk factors for CLD can be categorised as contact lens-related, patient-related or environment-related.

Contact lens-related risk factors include material, fitting, design, surface characteristics and the care solution. Some early studies showed silicone hydrogel lenses offer improved comfort, however these studies were not well controlled, and some were contralateral and likely led to biased responses. Comfort has been shown to vary with different silicone hydrogel materials, suggesting other contact lens factors such as surface, design, modulus and care solution are also at play.

31-58% of contact lens wearers report symptomatic contact lens discomfort

Deposition and the presence of substantial contact lens bioburden are associated with CLD. The literature is also in agreement regarding the contact lens fit with tighter fitting, steeper base curve, well centred contact lenses offering improved comfort. Toric and multifocal contact lens designs have been shown to be associated with increased discomfort, which could be due to the increased thickness profile of these designs. A less rounded edge design, which clinically manifests as conjunctival indentation, has been shown to be associated with decreased comfort in silicone hydrogel contact lens materials.

In regards to lens care systems, avoiding PHMB-based solutions or eliminating the lens care system by changing to a daily disposable are effective strategies to improve contact lens comfort. The literature is inconclusive whether peroxide-based solutions offer improved comfort over multipurpose solutions.

The report concludes to optimise comfort; the contact lens surface must be smooth and wettable with minimal deposits and contact lenses need to be well centred and not too mobile. Furthermore, where possible, the design of the contact lens including type, thickness and edge profile should also be considered.

There are conflicting results within the literature regarding the impact of age, sex and ethnicity on contact lens comfort. In addition, the association between comfort and lid-wiper epitheliopathy remains unclear, as there are disagreeing findings in the literature regarding a correlation. This could partly be due to discrepancies in staining protocol and grading. Although the clinical significance is unclear, patients with severe lid wiper staining may benefit from management, which involves increasing lubrication during contact lens wear by changing lens material, using ocular lubricants or blink training.

Environmental risk factors associated with CLD include low humidity or dry air environments and dusty, smoky, windy conditions. Pre-empting and decreasing exposure to these environmental conditions where possible is advisable to improve CLD.

Rewetting eye drops are the mainstay management option for CLD with saline, hypo-osmotic saline, aqueous and lipid-based drops all been shown to improve comfort. Manuka honey eye drops, instilled twice a day before and after lens wear, and oral fish oil supplementation have also been shown to improve comfort.

Evidence-based contact lens practice⁷

This report is a very helpful summary of various literature and studies that can be used by practitioners to help guide their clinical decision-making in a way that considers the quantity and quality of available evidence in regards to contact lens practice.

It is not just industry rhetoric but rather an evidence-based approach which indicates that adopting a proactive approach to fitting and recommending contact lenses, for example immediately prior to spectacle dispensing, can optimise the dispensing process for patients. The approach can be wellreceived by those offered the opportunity to try contact lenses. While it may seem trivial, it is important to know that an improvement in cosmesis, which can be one of the major motivators to try contact lenses, can result in increased confidence and a reduced consciousness regarding the wearer's appearance in social settings. Myopic children wearing contact lenses are more socially accepted compared to those wearing spectacles only. This is even before the clinical benefits of lens wear, such as a reduction of myopia progression with lenses indicated for that purpose. Once a patient is wearing contact lenses, the main reasons for drop out tend to be centred on comfort. This can be physical comfort related to the lenses or lens care system, or comfort with the optometrist in regards to their competency and encouragement of contact lens wear. It is important to encourage regular reviews with contact lens wearers, even those who are asymptomatic. This is to assess the suitability of the current lens wear with the patient's situation, the patient's overall eye health, and to reinforce good habits. This was demonstrated in a recent study where 52% of non-symptomatic wearers (n=202) presented with one or more contact lens complications at routine review.

A full and thorough history is required of each contact lens wearer or potential wearer. Immuno-compromised patients must be made aware of the risks of contact lens wear in order to make an informed decision. Regular follow ups to assess and enforce compliance are also particularly important. Lifestyle and occupation can play a role in contact lens selection: for example, drivers may need any astigmatic component incorporated into their contact lens prescription to optimise driving performance. Smoking and alcohol consumption are both risk factors that can be associated with contact lens related discomfort.

In terms of lens selection, it is important to consider various patient factors such as health conditions and ocular history, occupational/visual demands, refractive requirements as well as ocular surface health to make the lens recommendation. When selecting a soft lens, corneal topography should not inform the lens selection as it does not have as much impact on the lens fit as the relationship between the sagittal heights of the cornea and lens. The report suggests that until such time as saggital height measurement of both corneas and lenses are more widely available, the limited base curves of disposable or mass-produced lenses can be successfully used on 75-90% of eyes. When selecting a lens material, coefficient of friction and lens lubricity primarily affect the comfort of the lens, and it is known that daily disposable lenses reduce the risk of corneal infiltrative events, microbial keratitis severity, and ocular allergic symptoms.

Assessing lens fit is best done 10 minutes after lens application for soft lenses, with the push-up test being recorded as the most accurate predictor of acceptable lens fit. Poor movement on push-up or blink 10 minutes after application should indicate an unacceptable lens fit. When assessing the vision, particularly for more complicated prescriptions such as multifocals, it is recommended to use real-world visual tasks and optimise the prescription with a spherical over-refraction. A visual adaptation period of up to 15 days is recommended for multifocal contact lens wearers.

Aftercare visits should always include a tear film assessment using sodium fluorescein and conjunctival assessment with lid eversion. The period of review differs for different lens types, being recommended at 24 months for daily disposable lenses, 12 months for soft daily reusable lenses, and six months for overnight wear. This may need to be adjusted depending on expected prescription change (periods of six months recommended for progressing myopes, and 12 months for advancing presbyopes).

As health professionals, optometrists and other ECPs are bound by a duty of care for our patients, and practising in an evidencebased manner serves only to enhance patient outcomes, reading of the full CLEAR reports is highly recommended.

Design category	Design	Performance notes		
Bifocal	Annular (two-zone)	Performance highly dependent on pupil size and number/size of zones.		
	Diffractive	Designs can be modified for a number of needs including visual demands and pupil dependence.		
	Decentred	Not widely available in Australia. Has been shown to improve vision in aberrated eyes.		
Multifocal	Aspheric	Ocular spherical aberrations may either aid or hinder the design, contributing to variable success between patients. Higher adds may induce higher levels of coma if the lens decentres.		
	Annular (multi-zone)	Performance highly dependent on pupil size and number/size of zones.		
	Extended depth of focus (EDOF)	Ambiguous collective term – generally refers to non-monotonic, non- aspheric aperiodic profiles.		

Table 1

Simultaneous presbyopic lens designs

Classification		Disorder
Infection		Microbial keratitis
Inflammation		Sterile keratitis
	Epithelial	Microcysts, Vacuoles, Bullae *mechanical, Tight lens syndrome, Epithelial oedema
Metabolic	Stromal	Neovascularisation, striae/folds
	Endothelial	Endothelial blebs, Polymegathism/Pleomorphism
Mechanical		Corneal abrasion, Corneal erosion, Lens binding, Warpage *metabolic, Superior epithelial arcuate lesion, Mucin balls, Conjunctival epithelial flaps, Ptosis, Discomfort *inflammation
Toxic and allergic diso	rders	CL-related papillary conjunctivitis *mechanical/hypersensitivity, Solution induced corneal staining (SICS), Incomplete neutralisation of peroxide, Limbal stem cell deficiency *mechanical
Tear resurfacing disorders/Dry Eye		Contact lens induced dry eye *inflammation, Meibomian gland dysfunction *mechanical, Lid wiper Epitheliopathy *mechanical, Lid parallel conjunctival folds (LIPCOF) *mechanical, Inferior closure stain, 3 and 9 o'clock staining, Dimple veil
Contact lens discomfo	ort	Contact lens discomfort

Table 2

Complete list and classification of CLC examined in the CLEAR Contact Lens Complication Report

*Denotes secondary aetiology

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About the authors



Nadia Michaels graduated from Optometry from QUT with first class honours in 2007 and completed her Graduate Certificate in Ocular Therapeutics in 2014. She completed a post-graduate course in Advanced Ocular disease via the Centre for Eve Health in 2017. Nadia has worked as a clinical optometrist nationwide in both private practice and commercial settings. Nadia has joined Alcon Vision Care's Professional Affairs team in 2019. She is passionate about optometry, clinical excellence and customer service and is enthusiastic about sharing best practices with optometrists and health care practitioners.



Megan Zabell graduated from the University of Melbourne as a therapeutically endorsed optometrist in 2011. She worked in a private optometry practice for seven years and also taught preclinical optometry at the University of Melbourne for four years. Megan has a particular interest in the treatment of dry eye, as well as fitting contact lenses, which is what drew her to join Alcon Vision Care's Professional Affairs Team late in 2018. Megan also enjoys volunteering her optometric skill, having done so in Vanuatu and Nepal.

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1. Angelini T et al., Viscoelasticity & mesh-size at the surface of hydrogels characterized with microrheology. Invest Ophthalmol Vis Sci 2013; 54: E-abstract

2. PRECISION1[™] Contact Lenses (Instructions for use)

*in vitro measurement of unworn lenses.





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INNOVATIVE CONTACT LENS TECHNOLOGIES: THE MOST COMPLETE - FOR EXCEPTIONAL WEARING EXPERIENCE

By Marjorie Rah,

Associate Director Professional Services (SEA & ANZ), Bausch + Lomb Director of Medical Affairs, Vision Care (US), Bausch + Lomb

WHAT PATIENTS ARE SAYING

By Raymund Song,

Wearers put in contact lenses with simple expectations of comfort, clear vision, and health. They say they're satisfied with their daily disposable contact lenses, but many rely on eye drops, reduce their wearing time or settle for end-of-day discomfort.¹

A study of 318 silicone hydrogel daily disposable contact lens wearers found that 74% have to settle for less comfort in order to wear contact lenses the entire day, 82% are interested in a contact lens that can prevent or reduce dryness and 74% blame their own lifestyle for eye related issues.¹

BAUSCH + LOMB ULTRA® ONE DAY SILICONE HYDROGEL CONTACT LENSES

To cater to the needs of both patients and practitioners, recently Bausch + Lomb launched a new silicone hydrogel contact lens - ULTRA® ONE DAY. This lens combines breakthrough moisture and comfort technologies aimed at supporting a stable and healthy ocular surface environment to deliver outstanding comfort for a full 16 hours of wear.^{2,3}

ADVANCED MOISTURESEAL® TECHNOLOGY

Created using a proprietary two-phase polymerization process, the Bausch + Lomb $ULTRA^{\circledast}$ ONE DAY silicone hydrogel contact lens material balances moisture, modulus, and oxygen transmissibility for excellent ocular health and a comfortable wearing experience.^{3,4}. In the first phase of polymerization, a unique combination of long- and short-chain silicone polymers create a flexible matrix. Additional wetting agents are incorporated into the silicone backbone of the lens, helping to boost water content to 55%. The long-chain silicone provides a low modulus of 0.5Mpa while the short-chain silicones provide high oxygen transmissibility (Dk/t) of 134 and structural integrity for excellent handling.^{3,4,5}

Also during phase one of polymerization, the hydrophilic component dimethylacrylamide (DMA) is integrated into the silicone backbone, along with a Class II UV blocking agent that provides broad spectrum protection, blocking at least 50% of UVA rays and 95% of UVB rays.^{+3,6} In the second phase of polymerization, the humectant polyvinylpyrrolidone (PVP) is permanently grown around and throughout the silicone backbone to

further enhance moisture retention.⁵ According to a clinical study, ULTRA® ONE DAY retains 96% of its moisture after 16 hours of wear.⁷ The high and sustained moisture content of the lens material works in tandem with High Definition[™] aspheric optics, providing exceptional clarity in a wide variety of activities.^{2,8}

COMFORTFEEL TECHNOLOGY

Just as the material properties of the Bausch + Lomb ULTRA® ONE DAY lenses were engineered to support ocular health and comfort, the lens is also enhanced with ComfortFeel technology. Inspired by the TFOS DEWS II report⁹, ComfortFeel Technology includes a proprietary blend of ingredients that includes the osmoprotectants, glycerin and erythritol, and a balanced combination of key electrolytes, including potassium. ComfortFeel Technology also incorporates the moisturizers poloxamine 1107 and poloxamer 181 to help retain lens hydration and wettability. They also help to maintain tear proteins in their healthy, natural state. The ingredients in ComfortFeel Technology are released from the lens during lens wear.^{3,10}



Working in SYNERGY WITH THE TEAR FILM

For a full 16 hours of wear, Advanced MoistureSeal® and ComfortFeel Technologies work together with the tear film to promote a stable and healthy ocular surface environment.^{2,3}



BAUSCH + LOMB ULTRA® ONE DAY LENSES - THE MOST COMPLETE

Bausch + Lomb ULTRA® ONE DAY contact lenses incorporated with Advanced MoistureSeal® Technology and ComfortFeel Technology resulting in a most complete design of high oxygen permeability, low modulus, UV blocking⁺, and High Definition[™] Optics. The features of Bausch + Lomb ULTRA[®] ONE DAY contact lenses combine to provide an exceptionally clear and comfortable contact lens wearing experience.^{3,4,5,78}

+ UV Warning - Helps protect against transmission of harmful UV radiation to the cornea and into the eye. WARNING: UV-absorbing contact lenses are NOT substitutes for protective UV-absorbing eyewear such as UV-absorbing goggles or support to the provide against transmission or namination or namination or the every warking UV-absorbing contact lenses are NOI substitutes for protective UV-absorbing eyewear such as UV-absorbing goggles or support the two and surrounding area. The effectiveness of waring UV-absorbing contact lenses in preventing or reducing the incidence of ocluar disorders associated with exposure to UV light has not been to 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 outdoor activities). UV-blocking contact lenses help provide protection against harmful UV radiation. However, clinical studies have not been done to demonstrate that wearing UV-blocking contact lenses reduces the risk of developing cataracts or other eye disorders.

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ACUVUE®



Never beaten in comfort*

Globally, ACUVUE[®] is the most trusted brand by Optometrists**¹

ALWAYS READ THE LABEL AND USE AS DIRECTED

^WARNING: UV-absorbing contact lenses are NOT substitutes for protective UV-absorbing area. You should continue to us UV-absorbing geyexer as directed. NOT: Long-term exposure to UV radiation is one of the risk factors such added 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 outdoor activities), UV-blocking contact lenses help provide protection against harmful UV radiation. However, clinical studies have not been done to demonstrate that wearing UV-blocking contact lenses reduces the risk of developing cataracts or other eve disorders. Consult over eve care practitioner for more information.

*4 clinical studies from www.clinicaltrials.gov evaluated subjective comfort endpoints for ACUVUE® OASYS 1-Day Brand Contact lenses with HydraLuxe Technology (as of November 12, 2020). ** Euromonitor International; Eyewear 2021 edition; value sales at rsp, all retail channels, 2019 data; "Acuvue® family of brands" represents aggregated sales of following brands at GBN level: 1-Day Acuvue®, Acuvue® Oasys, Acuvue® Advance, Acuvue® and Acuvue® and Acuvue® Comparison of Acuvue® Comparison of Acuvue® Comparison of Comparison of Acuvue® Comparison of

1 JJV Data on File 2019. Data Substantiation for ACUVUE® Master Brand Claims Globally

1.1 Contact lens solutions

Supplier	Name	Disinfection agent	Preservatives	Shelf-life once opened (months)	Lens type
Alcon	OPTI-FREE PureMoist	Polyquad (polyquaternium-1), Aldox (myristamidopropyl dimethylamine)	Polyquad (polyquaternium-1), Aldox (myristamidopropyl dimethylamine)	6	Soft
Alcon	AOSEPT PLUS	Hydrogen peroxide	Preservative-free	3	Hard and Soft
Alcon	AOSEPT PLUS with HYDRAGLYDE	Hydrogen peroxide	Preservative-free	3	Hard and Soft
Bausch + Lomb	Biotrue Multi-Purpose Solution	Polyaminopropyl biguanide, polyquaternium	Polyaminopropyl biguanide, polyquaternium	3	Soft
Bausch + Lomb	Renu Fresh	Polyaminopropyl biguanide	Polyaminopropyl biguanide	3	Soft
Bausch + Lomb	Renu Sensitive	Polyaminopropyl biguanide	Polyaminopropyl biguanide	3	Soft
Bausch + Lomb	Boston ADVANCE Cleaner Solution	Alkyl ether sulfate, ethoxylated alkyl phenol, tri-quaternary cocoa- based phospholipid and silica gel	-	3	Hard
Bausch + Lomb	Boston ADVANCE Conditioning Solution	-	Polyaminopropyl biguanide, chlorhexidine gluconate, EDTA	3	Hard
Bausch + Lomb	Boston Simplus	Chlorhexidine gluconate, polyaminopropyl biguanide	Chlorhexidine gluconate, polyaminopropyl biguanide	3	Hard
Bausch + Lomb	Boston One Step Liquid Enzymatic Cleaner	Proteolytic enzyme (subtilisin)	Preservative-free	3	Hard
1&1	COMPLETE Multi-Purpose Solution EASY RUB	Poloxamer 237	Polyhexamethylene biguanide	3	Soft
181	ACUVUE RevitaLens MPDS	Tetronic 904	Alexidine dihydrochloride, polyquarternium-1	3	Soft
181	Oxysept	Hydrogen peroxide	Preservative-free	2	Soft
1%1	Total Care 1	Tyloxapol, tromethamine	Polyhexamethylene biguanide	3	Hard
Menicon	Platinum Peroxide	Hydrogen Peroxide	Preservative-free	3	Hard & Soft
Menicon	MeniCare Plus	Polyhexamethylene biguanide	Polyhexamethylene biguanide	3	Hard only
Menicon	Menicon Progent	Sodium hypochlorite	Preservative-free	Single use	Hard only
Menicon	Menicon Spray and Clean	Sodium olefin sulfonate	Preservative-free	3	Hard
Menicon	Meni-LAB 0.5%	Active chlorine (*practitioner use only)	Preservative-free	3	Hard

2.1 RGP designs

Distributor	Capricornia (C)	Contact Lens Centre Australia (CLCA)	Gelflex/ACL (G/ACL)	Innovative Contacts (IC)	Menicon (M)
Lens design					
Sphere/Toric	Sphere, aspheric, front surface toric, back surface toric, bitoric, quadrant specific options	STD Toric periphery, FST, BST, Bitoric, Conoid Bi Sym Medmont Freestyle	Sphere, aspheric, front surface toric, back surface toric, bitoric	EyeSpace Bespoke range: Rotationally Symmetric (RS), Toric, Quad in any toric variation: Front Surface, Back Surface Toric, Toric Periphery, Bitoric	Menicon Z (aspherical) Menicon Z- alpha (sphere) Menicon EX (sphere) Front surface/back surface Toric, bitoric available
Multifocal	SA Multifocal	Essential Series 1, 2 and 3	Multifocal - concentric design (toric available)	EyeSpace Bespoke Distance Centre Multifocal	Menifocal Z (N centre, Concentric design)
Bifocal	Bifocal—concentric design, D centre STD	STD Bifocal Tangeant Streak Bifocal	Bifocal - Concentric design and Linear Plus Translating Bifocal (toric available)	EyeSpace Bespoke Translating segment Bi- Focal	-
Keratoconus	Capricornia Keratoconus KBA (bi-aspheric) Epicon LC Rose K + K2 range Marconus	Centra PGA series (PGA, TSP, Mod TSP, Bi Sym, Back/front surface toric, Bitoric, Quad Sym)	ACL Kera Rose K + K2 range Keracon K1 and K2 (sphere and toric)	EyeSpace Scleral (avail diam 15.5 - 18.5mm in 0.5 steps). Trial set available.	Menicon E1
Post-corneal surgery	PCS Marconus Graft Rose K2 Post Graft	Centra PGA series (PGA, TSP, Mod TSP, Bi Sym, BST, FST, Bitoric, Quad Sym)	Post graft 1 and 2 ACL post graft Rose K2 post graft Gelflex Post Graft ACL Twin Curve Gelflex Reverse Geometry Lens	EyeSpace Scleral (avail diam 16.5 - 18.5mm in 0.5 steps). Trial set available.	-
Other specialty	Rose K2XL	Centra SS Series (semi- scleral) (MAX, TSP, BiSym, QuadSym, BST, FST, Bitoric)	Limbal Lift (EandK Series) Rose K2 XL	-	-

Scleral	-	-	Gelflex Scleral	EyeSpace Scleral (avail diam 15.5 - 20mm in 0.5 steps. Trial set available. HydraPEG coating upon request for EyeSpace scleral.	-
Mini Scleral	Katt Miniscleral 16.5mm Eycon Miniscleral	Mini Scleral 16mm/ SSMax Toric	Zenlens Mini Scleral Zenlens RC Gelflex Miniscleral Rose K2 XL	-	-

Warranty 2 exchanges within first 6 months. Variable credit allowances available, subject to lens design.	4 month per case warranty includes 2 exchanges per eye except where otherwise stated. Breakage, loss of lens or change of mind not covered. 50% credit for unsuccessful fits.	4 month warranty period includes one exchange at No charge. Material fees will apply for exchanges thereafter. Non-adapt credit subject to lens design.	Per case warranty includes 2 exchanges within 180 days for all products. No credit for unsuccessful fits.	3 month unlimited parameter changes, including 1 customer breakage. Credit allowances subject to lens design.
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2.2 RGP materials

Material name	Blank manufacturer	ISO	ISO Dk Dk (Fatt; Wetting UV (ISO; mmHg) angle-captive protection hPa) bubble (°)		UV protection	Colours	Distributor	
Acuity 200	Acuity Polymers	Fluoroxyfocon A	158	-	48 (receding angle)	-	Blue, Clear	IC
BioGP100	Vista Optics	-	75	-	-	Available	Green, blue	С
Boston EO		Enflufocon B	44	58	49	Available	Blue, ice blue, green, brown, grey, ice green	C, CLCA, G/ACL
Boston ES		Enflufocon A	14	18	52	Available	Blue, ice blue, green, brown, grey, clear	C, CLCA, G/ACL
Boston Equalens	Bausch and	Itafluorofocon A	35	47	30	Available	Blue	IC, C, CLCA, G/ ACL
Boston Equalens II	Lomb Boston GP	Oprifocon A	64	85		Available	Blue, green, clear	C, G/ACL
Boston IV		Itafocon B	14	19	17	-	Blue	C, G/ACL
Boston XO		Hexafocon A	75	100	49	Available	lce blue, violet, blue and green, clear	C, CLCA, G/ACL
Boston XO2		Hexafocon B	106	141	38	Available	lce blue, violet, blue, green, clear	C, G/ACL
FluoroPerm 30		Paflufocon C	23	30	131	Available	Blue, green, grey, crystal blue, majestic blue, brown, clear	C, CLCA, G/ACL
FluoroPerm 60	Paragon Vision	Paflufocon B	34	45	5	Available	Blue, green, crystal blue, brown, clear	C, CLCA, G/ACL
FluoroPerm 92	Sciences	Paflufocon A	48	64	16	Available	Blue, green, clear	CLCA, G/ACL
FluoroPerm 151		Paflufocon D	99	151	42	Available	Blue, crystal blue	CLCA, G/ACL
Menicon EX	Manican	Co-polymer of fluoromethacrylate, siloxanylmethacrylate and methyl methacrylate	39	52	20	-	Blue	М
Menicon Z	Mericon	Co-polymer of: fluoromethacrylate, siloxanylstyrene and benzotriazol	122	162	20	Available	Blue	M, CLCA
Optimum Comfort		Roflufocon C	49	65	6	Available	Blue, green, grey	CLCA, G/ACL
Optimum Extra	Contamac	Roflufocon D	75	100	3	Available	Blue, green, grey	CLCA, IC, G/ACL
Optimum Extreme		Roflufocon E	93	125	6	Available	Blue, green, grey	CLCA
OP-10	Stellar Contact Lens	Hofocon A	73	97	-	-	Clear	G/ACL
Paragon HDS		Paflufocon B	30	40	14.7	Available	Sapphire blue, emerald green, crystal blue, forest green, violet	C, CLCA, G/ACL
Paragon Thin	Paragon Vision Sciences	Paflufocon C	18	23	-	Available	Sapphire blue, emerald green, clear	С
Paragon HDS 100		Paflufocon D	75	100	42	-	Sapphire blue, emerald green, yellow	C, CLCA
РММА	Vista Optics	Polymethyl methacrylate	<0.02	0	18	-	Grey, light blue, clear	C, CLCA, G/ACL

2.3 Ortho-Keratology designs Please note: it is strongly advised that Ortho-Keratology is only practised using a corneal topographer.

Design	Material	Distributor	Diameter (mm)	Recommended correction range	Comments
BE Ortho-K	Boston XO	Capricornia	-	No recommended correction range. Spherical correction only.	Individual parameters not directly modifiable by practitioner. Trial set and software package required.
Brighten Optix Ortho- Keratology	Boston XO2	CLCA	10-11	-0.25D to -9.00D (0.25D steps).	Fitting set supplied, with software system for lens design. Processing time 4-6 business days.
Capricornia Custom Ortho-K	Boston XO	Capricornia	-	No recommended correction range. Toric designs available.	Lens design provided based on topography maps sent to Capricornia. 36 hour dispatch time.
Emerald Ortho-K	Boston XO	Gelflex/ACL	10.6	Up to -5.50Dsph.	Processing time 5 business days. Lens design provided based on topography maps sent to lab.
EyeSpace Forge Ortho-K	Boston XO or Optimum Extra (material customisable)	Innovative Contacts	-	+5.00Dsph to -8.00Dsph. Toric correction available for up to -4.00D WTR myopia, or +2.50D for hyperopia.	Topography based customised designing in Rotationally Symmetric (RS), Toric or Quad designs. Processing time 8 days.
Gelflex Ortho-K for astigmatism	Boston XO (material customisable)	Gelflex/ACL	10.6, 11.2	No recommended correction range.	Lens design provided based on topography maps sent to lab. Processing time 5 business days.
Gelflex Ortho-K for Myopia	Boston XO (material customisable)	Gelflex/ACL	10.6, 11.2	No recommended correction range.	Lens design provided based on topography maps sent to lab. Processing time 5 business days.
Menicon Alpha Ortho-K	Boston XO	Menicon	10.0-11.0	-0.50D to -6.00Dsph. Toric design available	Unique 4 zone 5 curve design. Topography based fitting. Processing time 10-12 business days direct from Japan
Menicon Z-CRT dual axis	Menicon Z	Menicon	10.5, 11	Up to -2.00DCyl.	Individual return zone depth and BC customisable by practitioner. 10 business days processing time.
Menicon Z-CRT sphere	Menicon Z	Menicon	10.5, 11	-6.00	Individual return zone depth and BC customisable by practitioner. 10 business days processing time.
Menicon Z Night	Menicon Z	Menicon	10.2, 10.6, 11	Up to -4.00Dsph.	Fenestrated lens design. 10 business days for lenses to arrive from Netherlands.
Menicon Z Night Toric	Menicon Z	Menicon	10.2, 10.6, 11	Up to -1.50 to -2.50DCyl: with the rule and -0.75 to -1.50DCyl: against the rule astigmatism.	Fenestrated lens design. 10 business days for lenses to arrive from Netherlands.
Paragon CRT for Ortho-K	Paragon HDS 100	Gelflex/ACL	12.5	Up to -6.00Dsph with up to -1.75DCyl:.	Diagnostic dispensing set required. Individual return zone depth and BC customisable.
Paragon CRT Dual Axis: for Ortho-K	Paragon HDS 100	Gelflex/ACL	12.5	Toric periphery, up to a maximum difference of approx 4D.	Processing time 1-3 weeks; stock dependent.
PJ Ortho-K	Boston XO	Capricornia	Customised by HVID	No recommended correction range. Spherical or toric with no price difference	Topography based empirical software ordering system. 100% unsuccessful credit.
Sapphire Ortho-K	Boston XO	Gelflex/ACL	10.6	Toric periphery, up to a maximum difference of approx 2.75D.	Lens design provided based on topography maps sent to lab. Processing time 5 business days.

Distributor	Warranty				
Capricornia	2 no-charge exchanges within 6 months. No credit available f	or unsuccessful fits.			
Contact Lens Centre Australia	2 exchanges per eye within 4 months, except where otherwise covered. 50% credit for unsuccessful fits.	e stated. Breakage, loss of lens or change of mind not			
Gelflex/ACL	4 month warranty period including first exchange at no charge. 30 day from dispensing breakage warranty. Material fees will apply for all exchanges thereafter. Non-adapt credit available but subject to lens design.				
Innovative Contacts	Per case warranty includes 2 exchanges within 180 days for a	Per case warranty includes 2 exchanges within 180 days for all products. No credit for unsuccessful fits.			
Menicon	Z Night: 3 month per case warranty including unlimited parameter changes, and 1 customer damage replacement. Full refund policy if unsuccessful within first 3 months.	Alpha Ortho-K: 3 month warranty, 2 parameter changes and 1 breakage warranty. 50% credit for unsuccessful fitting.			
Forge Ortho-K	Per case warranty includes 2 exchanges after first lens, within 180 days of order. No credits available for unsuccessful fits.				
Emerald	4 month warranty period including first exchange at No charge. Material fees will apply for all exchanges thereafter. Non- adapt credit available but subject to lens design.				
Paragon Lenses	Manufacturer warranty applies per lens. 30 day dispensing br	eakage warranty.			

2.4 Hybrid lenses

Design	Distributor	Material details	Overall diameter	Base curve	Available Rx	Comments
Duette SiHy Hybrid	SynergEyes	Petrafocon A centre (Dk 130 Fatt) and hem-larafilcon A SiH skirt (Dk 84 Fatt). Water Content 27%. Central RGP has violet handling tint. UVA and UVB blocker in all designs. Optional tangible Hydra-PEG coating.		7.1 to 8.3mm in	+10D to -15D	BOZD 7mm Enhanced Profile (centre thickness) option available; recommended for >2.00 corneal cyl Visit duettecalculator.com
Duette Progressive	SynergEyes		RGP 8.5mm, SiHy skirt 14.5mm	0.1mm steps. Soft Skirt BC range 7.9 to 8.7mm.	+5.50D to -10D Near Centre (3.0mm zone) Add +1.00, +1.75, +2.50D Distance Centre (1.8- 4.0mm customisable zone) Add +0.75 to +5.00D (0.25 steps)	Distance or near centre avail. Add area customisable in D centre. Standard BOZD 7mm Enhanced Profile (centre thickness) option available; recommended for >2.00 corneal cyl Visit duettecalculator.com
Duette UltraHealth SiHy Hybrid for Keratoconus	SynergEyes			RGP BC range 6.9 to 8.9mm. Soft Skirt BC range 7.9 to 8.7mm. Vaults 50-550 µm in 50 µm steps.	+10D to -20D	For central keratoconus up to 55-60D. 6-6.5mm optic zone.
Duette UltraHealth FC	SynergEyes			RGP BC range 6.9 to 8.9mm. Soft Skirt BC range 7.9 to 8.7mm. Vaults 55-505 µm in 50 µm steps.		For oblate corneas with or without ectasia – post LASIK ectasia 6mm optic zone.
RSS	CLCA	Roflufocon D centre (Dk 100 Fatt) and Etrofilcon A V 3 SiH skirt (Dk 60 Fatt, 74%	14.9mm to 15.8mm	Customisable range.	Customisable power range. Front surface toric available.	BOZD 8.5mm or 10mm
RSS Multifocal	CLCA	water content). Ultra light blue tint	13.01111	Customisable range.	Front and back surface toric available.	BOZD 8.5mm or 10mm.

Distributor	Warranty
SynergEyes	3 month (90 day) warranty, 2 exchanges or 100% credit
Contact Lens Centre Australia	4 month per case warranty includes 2 exchanges per eye except where otherwise stated. Breakage, loss of lens or change of mind not covered. 50% credit for unsuccessful fits.

3.1 Disposable spherical monthly

Supplier	Lens design	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material) % H²0	DK/t at -3.00	Approved extended wear	Comments
Alcon	AIR OPTIX NIGHT and DAY	8.4 8.6	13.8	+6.00 to -8.00 -8.50 to -10.00 (0.50 steps)	SiH (lotrafilcon A), 33	175	29 nights	Light blue handling tint.
Alcon	AIR OPTIX AQUA	8.6	14.2	+6.00 to -8.00 -8.50 to -10.00 (0.50 steps)	SiH (lotrafilcon B), 33	138	6 nights	Light blue handling tint.
Alcon	AIR OPTIX plus HYDRAGLYDE	8.6	14.2	+6.00 to -8.00 -8.50 to -12.00 (0.50 steps) +8.00 to +6.00 (0.50 steps)	SiH (lotrafilcon B), 33	138	6 nights	Light blue handling tint.
Bausch + Lomb	ULTRA	8.5	14.2	+6.00 to -6.00 -6.50 to -12.00 (0.50 steps) includes plano	SiH (samfilcon A), 46	163	Up to 7 days	Light blue handling tint.
Bausch + Lomb	PureVision2	8.6	14.0	+6.00 to -6.00 -6.50 to -12.00 in 0.50 steps	SiH (balafilcon A), 36	130	Up to 30 days	Light blue handling tint.
Capricornia	Mark'ennovy Saphir Rx	6.80 to 9.80 (0.3 steps)	13.0 to 16.0 (0.5 steps)	+30.00 to -30.00	SiH, 75	60	No	*Made to order.

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3.1 Disposable spherical monthly

Supplier	Lens design	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material) % H ² 0	DK/t at -3.00	Approved extended wear	Comments
Capricornia	Mark'ennovy Gentle 59 or 80	7.10 to 9.80 (0.3 steps)	13.0 to 16.0 (0.5 steps)	+30.00 to -30.00	Н, 59/80	60	No	*Made to order.
Capricornia	Mark'ennovy Blu:Gen	6.50 to 9.80 (0.3 steps)	11.5 to 16.5 (0.5 steps)	+30.00 to -30.00	SiH, 75	60	No	Class 1 UV blocking. *Made to order. Blue light filter.
Capricornia	Mark'ennovy Blue:Kidz	6.50 to 9.80 (0.3 steps)	11.5 to 16.5 (0.5 steps)	+30.00 to -30.00	SiH, 75	60	No	Class 1 UV blocking. *Made to order. Blue light filter.
Coopervision	Biofinity Energys	8.6	14.0	-0.25 to -6.00 -6.50 to -12.00 (0.50 steps) Plano to +6.00 +6.50 to +8.00 (0.50 steps)	SiH (comfilcon A), 48	160	29 nights	Light blue handling tint. May ease accommodative burden when using digital devices.
Coopervision	Biofinity	8.6	14.0	-0.25 to -6.00 -6.50 to -12.00 (0.50 steps) +0.25 to +6.00 +6.50 to +8.00 (0.50 steps)	SiH (comfilcon A), 48	160	29 nights	Light blue handling tint.
Coopervision	Biofinity XR	8.6	14.0	+8.50 to +15.00 (0.50 steps) -12.50 to -20.00 (0.50 steps)	SiH (comfilcon A), 48	160	29 nights	Light blue handling tint.
Coopervision	Proclear	8.6	14.2	Plano to -6.00 -6.50 to -20.00 (0.50 steps) +0.50 to +6.00 +6.50 to +20.00 (0.50 steps)	H (omafilcon B), 62	42	No	Low dehydration. Light blue handling tint.
Gelflex/ACL	Breeze Spheres	8.6	14	+6.00 to -6.00 -6.50 to -12.00 (0.50 steps) +6.50 to +8.00 (0.50 steps)	SiH (comfilcon A), 48	160	29 nights	Visibility tint.
Gelflex/ACL	ACL Private Label Monthly Pro	8.6	14.2	-0.25 to -6.00 -6.50 to -20.00 (0.50 steps) +0.50 to +6.00 +6.50 to +20.00 (0.50 steps)	H (omafilcon B), 62	27	No	Low dehydration. Blue handling tint.
Gelflex/ACL	Sofclear Comfort monthly 3-pack	8.6	14.3	-0.50 to -6.00 -6.00 to -15.00 (0.50 steps) +0.50 to +6.00 (0.50 steps)	H (methafilcon A), 55	27	No	Class 2 UV blocking. Low dehydration. Blue handling tint.
1%1	ACUVUE Vita	8.4 8.8	14.0	-0.50 to -6.00 -6.50 to -12.00 (0.50 steps) +0.50 to +6.00 +6.50 to +8.00 (0.50 steps)	SiH (senofilcon C), 41	147	No	Class 1 UV blocking. Visibility tint. 123 inversion marking.
Menicon	Miru 1month	8.3 8.6	14.0	-0.25 to -6.00 -6.50 to -13.00 (0.50 steps) +0.25 to +6.00	SiH (asmofilcon), 40	161	No	6 lenses in pack.

3.2 Disposable spherical two-weekly

Supplier	Lens design	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H²0	DK/t at -3.00	Approved extended wear	Comments
Coopervision	cAir	8.4	14.2	-0.25 to -6.00 -6.50 to -12.00 (0.50 steps) +0.25 to +6.00 +6.50 to +8.00 (0.50 steps)	SiH (fanfilcon A), 55	110	No	Class 1 UV blocking. Low modulus 0.6MPa. Light blue handling tint.
1%1	ACUVUE OASYS with Transitions	8.4, 8.8	14.0	Plano to -6.00 -6.50 to -12.00 (0.50 steps) +0.25 to +6.00 +6.50 to +8.00 (0.50 steps)	SiH (senofilcon A), 38	121	No	Class 1 UV blocking. Visibility tint. 123 inversion marking.
L%T	ACUVUE OASYS with HYDRACLEAR PLUS	8.4, 8.8	14.0	Plano -0.50 to -6.00 -6.50 to -12.00 (0.50 steps) 0.50 to +6.00 +6.50 to +8.00 (0.50 steps)	SiH (senofilcon A), 38	147	7 days	Class 1 UV blocking. Visibility tint. 123 inversion marking.

3.3 Disposable spherical daily

Supplier	Lens design	Base curve (mm)	Diameter (mm)	r Power range (D) (in 0.25 steps Type (mater unless specified otherwise) % H²O		DK/t at -3.00	Comments
Alcon	DAILIES TOTAL1	8.5	14.1	+6.00 to +0.50 -0.50 to -6.00 -6.50 to -12.00 (0.50 steps)	Water gradient SiH (delefilcon A), 30% core, ~100% outermost surface	156	Light blue handling tint.
Alcon	PRECISION1 One- Day Contact Lenses	8.3	14.2	-0.50 to -6.00 -6.50 to -12.00 (0.50 steps) +0.50 to +6.00 +6.50 to +8.00 (0.50 steps) (-8.00 to -12.00 and +4.00 to +8.00) SiH (verofilcon A), 100 51% core, 80% surface +8.00		100	Class 1 UV blocking. Light blue handling tint.
Alcon	DAILIES AquaComfort PLUS Sphere	8.7	14.0	-0.50 to -6.00 -6.50 to -15.00 (0.50 steps) +8.00 to +6.50 (0.50 steps) +6.00 to +0.50	H (nelfilcon A), 69	26	Light blue handling tint.
Alcon	Focus DAILIES All Day Comfort Sphere	8.6	13.8	-0.50 to -6.00 -6.50 to -10.00 (0.50 steps) +6.00 to +0.50	H (nelfilcon A), 69	26	Light blue handling tint.
Bausch + Lomb	Biotrue ONEday	8.6	14.2	+6.00 to -6.25 (excl. plano) -6.50 to -12.00 (0.50 steps)	H (nesofilcon A), 78	42	Class 2 UV blocking. Light blue handling tint.
Bausch + Lomb	Ultra ONE-DAY	8.6	14.2	+6.00 to -6.00 (Excl. plano) -6.50 to -12.00 (0.50 steps)	SiH (kalifilcon A), 55	134	Class 2 UV blocking. Light blue handling tint.
1%1	ACUVUE OASYS 1 DAY	8.5, 9.0	14.3	-0.50 to -6.00 -6.50 to -12.00 (0.50 steps) +0.50 to +6.00 +6.50 to +8.00 (0.50 steps)	SiH (senofilcon A), 38	121	Class 1 UV blocking. Visibility tint. 123 inversion marking.
1%1	1 DAY ACUVUE Moist	8.5, 9.0	14.2	-0.50 to -6.00 -6.50 to -12.00 (0.50 steps) +0.50 to +6.00	H (etafilcon A), 58	25.5	Class 2 UV blocking. Visibility tint. 123 inversion marking.
Coopervision	MyDay daily disposable	8.4	14.2	+0.25 to +5.00 +5.50 to +8.00 (0.50 steps) -0.25 to -6.00 -6.50 to -12.00 (0.50 steps)	SiH (stenfilcon A), 54	100	Class 2 UV blocking. Modulus 0.4MPa. Light blue handling tint.
Coopervision	clariti 1 day	8.6	14.1	+0.50 to +6.00 +6.50 to +8.00 (0.50 steps) -0.50 to -6.00 -6.50 to -10.00 (0.50 steps)	SiH (somofilcon A), 56	86	Class 2 UV blocking. Low modulus 0.5MPa.
Coopervision	Proclear 1 day	8.7	14.2	+0.25 to +5.00 +5.50 to +8.00 (0.50 steps) -0.25 to -6.00 -6.50 to -12.00 (0.50 steps)	H (omafilcon A), 60	28	Low dehydration. Light blue handling tint
Gelflex/ACL	Clear Day 30 and 90 pack	8.7	14.2	-0.25 to -6.00 -6.50 to -12.00 (0.50 steps) +0.25 to +5.00 +5.50 to +8.00 (0.50 steps)	H (omafilcon A), 60	27	Visibility tint.
Gelflex/ACL	Day by Day Extra 30 and 90 pack	8.6 (-) 8.8 (+)	14.2	-0.25 to -6.00 -6.50 to -10.00 (0.50 steps) +0.25 to +5.00 +5.50 to +6.00 (0.50 steps)	H (ocufilcon D), 55	27	Class 2 UV blocking. Light blue handling tint.
Gelflex/ACL	Sofclear Comfort One Day	8.6	14.3	-0.50 to -6.00 -6.50 to -10.00 +0.50 to +6.00 (0.50 steps)	H (methafilcon B), 57	27	Class 2 UV blocking. Visibility tint.
Menicon	Miru 1Day Flat Pack	8.6	14.2	-0.50 to -6.00 -6.50 to -10.00 (0.50 steps) +0.50 to +4.00	H (hioxifilcon A), 57	19	Unique flat packaging.
Menicon	Miru 1Day UpSide	8.4	14.2	-0.25 to -6.00 -6.50 to -10.00 (0.50 steps)	SiH (midafilcon A), 56	91	Class 2 UV blocking. "Smart Touch" packaging significantly reduces contamination of the inside lens surface from handling.
SEED	1dayPure	8.8	14.2	+8.00 to +5.50 (0.50 steps) +5.00 to +0.50 Plano -0.50 to -6.00 -6.50 to -16.00 (0.50 steps)	H, 58	42.9	UV inhibitor. Light blue handling tint. 32 lenses per pack.

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3.4 Disposable toric monthly

Supplier	Lens design	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H²0	DK/t at -3.00	Approved extended wear	Comments
Alcon	AIR OPTIX plus HydraGlyde for Astigmatism	8.7	14.5	Plano to -6.00 -6.50 to -10.00 (0.50 steps) +0.25 to +6.00 Cyl: -0.75, -1.25, -1.75, -2.25 Axis: 10° to 180° (10° steps)	SiH (lotrafilcon B), 33	108	6 nights	Light blue handling tint.
Bausch + Lomb	ULTRA for Astigmatism	8.6	14.5	Plano to -6.00 +0.25 to +6.00 -6.50 to -9.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75, -2.25, -2.75* Axis: 10° to 180° (10° steps)	SiH (samfilcon A), 46	114	7 days	*Made to order. Light blue handling tint. Orientation mark at 6 o'clock.
Bausch + Lomb	PureVision2 for Astigmatism	8.9	14.5	Plano to -6.00 +0.25 to +6.00 -6.50 to -9.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75, -2.25 Axis: 10° to 180° (10° steps)	SiH (balafilcon A), 36	91	Up to 30 days	Light blue handling tint.
Capricornia	Mark'ennovy Saphir Rx Toric	6.80 to 9.80 (0.3 steps)	13.0 to 16.5 (0.5 steps)	+30.00 to -30.00 Cyl: -0.75 to -8.00 Axis: 0° to 180° (1° steps)	SiH, 75	60	No	*Made to order.
Capricornia	Mark'ennovy Gentle Toric	7.10 to 9.80 (0.3 steps)	13.0 to 16.5 (0.5 steps)	+30.00 to -30.00 Cyl: -0.75 to -8.00 Axis: 0° to 180° (1° steps)	H, 59/80	60	No	*Made to order.
Capricornia	Mark'ennovy Blu:Gen Toric & Blu:kidz Toric	6.50 to 9.80 (0.3 steps)	11.5 to 16.5 (0.5 steps)	+30.00 to -30.00 Cyl: -0.75 to -8.00 Axis: 0° to 180° (1° steps)	SiH, 75	60	No	*Made to order.
Coopervision	Biofinity Toric	8.7	14.5	-6.00 to +6.00 -6.50 to -10.00 (0.50 steps) +6.50 to +8.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75, -2.25 Axis: 10° to 180° (10° steps)	SiH (comfilcon A), 48	116	29 nights	Orientation line at 6 o'clock. Light blue handling tint.
Coopervision	Biofinity XR Toric	8.7	14.5	+8.50 to +20.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75, -2.25 Axis: 5° to 180° (5° steps) Plano to +/-20.00 (0.50 steps after +/-6.00) Cyl: -2.75 to -5.75 (0.50 steps) Axis: 5° to 180° (5° steps)	SiH (comfilcon A), 48	116	29 nights	For high astigmats. Orientation line at 6 o'clock. Light blue handling tint.
Coopervision	Proclear Toric	8.8	14.4	+6.00 to -6.25 -6.50 to -8.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75, -2.25 Axis: 10° to 180° (10° steps)	H (omafilcon B), 62	25	No	Low dehydration. 3 orientation lines at 6 o'clock. Light blue handling tint.
Coopervision	Proclear toric XR	8.4, 8.8	14.4	+6.00 to -6.25 -6.50 to -8.00 (0.50 steps) Cyl: -2.75 to -5.75 (0.50 steps) Axis: 5° to 180° (5° steps) +6.25,+6.50 to +10.00 (0.50 steps) -8.50 to -10.00 (0.50 steps) Cyl: -0.75 to -5.75 (0.50 steps) Axis: 5° to 180° (5° steps)	H (omafilcon B), 62	21	No	For high astigmats. Low dehydration. Orientation line at 6 o'clock. Light blue handling tint.
Gelflex/ACL	ACL Private Label Monthly Pro Toric	8.4, 8.8	14.4	Sphere: +6.00 to -6.00 (0.25 steps) -6.50 to -8.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75, -2.25 Axis: 10° to 180° (10° steps)	H (omafilcon B), 62	27	No	Low dehydration. Handling tint.
Gelflex/ACL	ACL Private Label Monthly Pro Toric - Extended Range	8.4, 8.8	14.4	Sphere: +/- 6.50 +/- 6.50 to +/-10.00 (-0.50 steps) Cyl: -0.75 to -5.75 (0.50 steps) Axis: 5° to 180° (5° steps)	H (omafilcon B), 62	27	No	For high astigmats. Low dehydration. Handling tint.
Gelflex/ACL	Breeze Toric	8.7	14.5	Sphere: +6.00 to -6.00 -6.50 to -10.00 (0.50 steps) Cyl: -0.75, -1.25,-1.75, -2.25 Axis: 10° to 180° (10° steps)	SiH (comfilcon A), 48	116	29 nights	Handling tint.

3.4 Disposable toric monthly

Supplier	Lens design	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H²0	DK/t at -3.00	Approved extended wear	Comments
L%T	ACUVUE VITA for ASTIGMATISM	8.6	14.5	Plano to -6.00 Cyl: -0.75, -1.25, -1.75 Axis: 10° to 180° (10° steps) Cyl: -2.25 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° -6.50 to -9.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° +0.25 to +4.00 Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180°	SiH (senofilcon C), 41	129	Νο	Class 1 UV blocking. Orientation marks at 6 and 12 o'clock. Visibility tint.
Menicon	Miru 1month Toric	8.6	14	Plano to -6.00, -6.50 to -10.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75, Axis: 10° to 180° (10° steps)	SiH (asmofilcon A), 40	161	No	Axis: marks inserted inferiorly.

3.5 Disposable toric two-weekly

Supplier	Lens design	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type DK/t (material), at % H ² 0 -3.00		Approved extended wear	Comments
Coopervision	cAir toric	8.5	14.5	-6.00 to +6.00, -6.50 to -10.00 (0.50 steps), +6.50 to +8.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75, -2.25, Axis: 10° to 180° (10° steps)	SiH (fanfilcon A), 55	90	No	Class 1 UV blocking. Orientation line at 6 o'clock. Light blue handling tint.
L%T	ACUVUE OASYS with ASTIGMATISM	8.6	14.5	Plano to -6.00, -6.50 to -9.00 (0.50 steps), +0.25 to +6.00, Cyl: -0.75, -1.25, -1.75, -2.25, -2.75, Axis: 10° to 180° (10° steps)	SiH (senofilcon A), 38	129	7 days	Class 1 UV blocking. Orientation marks at 6 and 12 o'clock. Visibility tint.

3.6 Disposable toric daily

Supplier	Lens design	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H ² 0	DK/t at -3.00	Comments
Alcon	DAILIES AquaComfort PLUS TORIC	8.8	14.4	+4.00 to -6.00 -6.50 to -8.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180°	H (Nelfilcon A), 69	26	OK inversion indicator and scribe marks at 3 and 9 O'clock. Light blue handling tint.
Bausch + Lomb	Biotrue ONEday for Astigmatism	8.4	14.5	Plano to -6.00D Cyl: -0.75D, -1.25D, -1.75D: 10° to 180° in 10° steps Cyl: -2.25D: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° Plano to -6.00D (0.50 steps) Cyl:-2.75D: 10°, 20°, 90°, 160°, 170°, 180°	H (nesofilcon A), 78	42	Class 2 UV blocking. Light blue handling tint. Peri-ballast (prism-free).
				-6.50D to -9.00D (0.50 steps) Cyl: -0.75D, -1.25D, -1.75D: 10°, 20°, 60°, 70°, 80°, 90°, 100°, 110°, 120°, 160°, 170°, 180° Cyl:-2.25D: 10°, 20°, 90°, 160°, 170°, 180°			
				+0.25D to +4.00D Cyl: -0.75D, -1.25D, -1.75D: 10º, 20º, 70º, 80º, 90º, 100º, 110º, 160º, 170º, 180º			

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3.6 Disposable toric daily

Supplier	Lens design	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H ² 0	DK/t at -3.00	Comments
Coopervision	clariti 1 day toric	8.6	14.3	Plano to -6.00 Cyl: -0.75, -1.25, -1.75 Axis: 10° to 180° (10 steps) Cyl: -2.25 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° -6.50 to -9.00 (0.50) Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 60°, 70°, 80°, 90°, 100°, 110°, 120°, 160°, 170°, 180° Cyl: -2.25 Axis: 10°, 20°, 90°, 160°, 170°, 180° +0.25 to +4.00 Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180°	SiH (somofilcon A), 56	57	Class 2 UV blocking. Low modulus 0.5Mpa.
Coopervision	MyDay daily disposable toric	8.6	14.5	Plano to -6.00 Cyl: -0.75, -1.25, -1.75 Axis: 10 to 180 (10 steps) Cyl: -2.25 Axis: 10°, 20°, 90°, 160°, 170°, 180° -6.50 to -10.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° Cyl: -2.25 Axis: 10°, 20°, 90°, 160°, 170°, 180° +0.25 to +6.00 Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° +0.50 to +6.00 (0.50 steps) Cyl: -2.25 Axis: 10°, 20°, 90°, 160°, 170°, 180°	SiH (stenfilcon A), 54	80	Class 2 UV blocking. Low modulus 0.4Mpa. Light blue handling tint.
L&I	ACUVUE OASYS 1 Day for ASTIGMATISM	8.5	14.3	Plano to -6.00 Cyl: -0.75, -1.25, -1.75 Axis: 10° to 180° (10° steps) Cyl: -2.25 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° -6.50 to -9.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 70°, 80°, 90°,100°, 110°, 160°, 170°, 180° +0.25D to +4.00 Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 70°, 80°, 90°, 100°,110°, 160°, 170°, 180°	SiH (senofilcon A), 38	129	Class 1 UV blocking. Orientation marks at 6 and 12 o'clock. Visibility tint.
1&1	1 Day ACUVUE MOIST for ASTIGMATISM	8.5	14.5	Plano to -6.00 Cyl: -0.75, -1.25, -1.75 Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° Cyl: -2.25 Axis: 20°, 90°, 160°, 180° -6.50 to -9.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75, Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° +0.25 to +4.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75 Axis: 20°, 70°, 90°, 110°, 160°, 180°	H (etafilcon A), 58	23.8	Class 2 UV blocking. Orientation marks at 6 and 12 o'clock. Visibility tint.
Menicon	Miru 1Day Flat Pack	8.6	14.5	+2.00 to -6.00 (0.50D steps) -6.50 to -8.00 (0.50D steps) Cyl: -0.75, -1.25, -1.75 (180° only) Axis: 15°, 90°, 165°, 180°	H (hioxifilcon A), 57	19	FlatPack packaging and SmartTouch
Menicon	Miru 1Day UpSide	8.4	14.2	Plano to -6.00D (0.25D steps), -6.50D to -10.00 (0.50D steps) Cyl: -0.75, -1.25, -1.75 (180° only) Axis: 90° and 180°	SiHy, 56%	91	SmartTouch packaging
SEED	1dayPure Astigmatism	8.8	14.2	+5.00 to -6.00 -6.50 to -10.00 (0.50 steps) Cyl: -0.75, -1.25, -1.75 Axis: 20°, 90°, 160°, 180° Cyl: -2.25 Axis: 180°	H, 58	27.3	UV inhibitor. Light blue handling tint. 32 lenses per pack.

3.7 Disposable spherical multifocal

Supplier	Lens design	Replacement Frequency	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H²0	Approved extended wear	DK/t at -3.00	Comments
Alcon	DAILIES TOTAL1 MULTIFOCAL	Daily	8.5	14.1	+6.00 to -10.00 Add: LO, MED, HI	Water gradient SiH (delefilcon A), 30% core, ~100% outermost surface	No	156	Centre near design. Light blue handling tint.
Alcon	DAILIES AquaComfort PLUS MULTIFOCAL	Daily	8.7	14.0	+6.00 to -10.00 Add: LO, MED, HI	H (nelfilcon A), 69	No	26	Centre near design. Light blue handling tint.
Alcon	AIR OPTIX plus HYDRAGLYDE MULTIFOCAL	Monthly	8.6	14.2	+6.00 to -10.00 Add: LO, MED, HI	SiH (lotrafilcon B), 33	6 nights	138	Centre near lens design. Blue handling tint.
Bausch + Lomb	Biotrue ONEday for Presbyopia	Daily	8.6	14.2	Plano, +6.00 to -9.00 Low: Spec Add +0.75 to +1.50 High: Spec Add +1.75 to +2.50	H (nesofilcon A), 78	No	42	Class 2 UV blocking. Light blue handling tint.
Bausch + Lomb	ULTRA for Presbyopia	Monthly	8.5	14.2	Plano, +6.00 to -10.00 Low : Spec Add +0.75 to +1.50 High: Spec Add +1.75 to +2.50	SiH (samfilcon A), 46	7 days	163	Light blue handling tint.
Bausch + Lomb	PureVision2 for Presbyopia	Monthly	8.6	14.0	Plano, +6.00 to -10.00 Low : Spec Add +0.75 to +1.50 High: Spec Add +1.75 to +2.50	SiH (balafilcon A), 36	Up to 30 days	130	Light blue handling tint.
Capricornia	Mark'ennovy EDOF (BHVI Extended Depth of Focus)	Monthly	7.10 to 9.80 (0.3 steps)	13.50 to 15.50 (0.5 steps)	+18.00 to -18.00 Add: +0.75, +1.50, +2.25	SiH, 75	-	60	*Made to order
Capricornia	Mark'ennovy Saphir Rx multifocal	Monthly	6.80 to 9.80 (0.3 steps)	13.0 to 16.0 (0.5 steps)	+30.00 to -30.00 Add: +0.50 to +4.00 (0.50 steps)	SiH, 70	-	60	*Made to order
Capricornia	Mark'ennovy Gentle Multifocal	Monthly	7.10 to 9.80 (0.3 steps)	13.0 to 16.0 (0.5 steps)	+30.00 to -30.00 Add: +0.50 to +4.00 (0.50 steps)	H 59/80	-	-	*Made to order. UV inhibited.
Capricornia	Mark'ennovy Blu: Gen Multifocal, Blukidz Multifocal	Monthly	6.50 to 9.80 (0.3 steps)	11.5 to 16.5 (0.5 steps)	+30.00 to -30.00 Add: +0.50 to +4.00	SiH, 75	-	60	*Made to order. Blue light filter.
CLCA	NaturalVue	Daily	8.3	14.5	+4.00 to -12.25	H (etalfilcon A), 58	No	-	Centre distance multifocal with extended depth of focus optics. Visibility tint.
Coopervision	MyDay multifocal	Daily	8.4	14.2	+8.00 to -10.00 -10.50 to -12.00 (0.50 steps) Add: Low (+0.75 to +1.25 spec add) Med (+1.50 to +1.75 spec add) High (+2.00 to +2.50 spec add)	SiH (stenfilcon A), 54	No	100	Centre-near. UV inhibitor. Light blue handling tint
Coopervision	clariti 1 day multifocal	Daily	8.6	14.1	-6.00 to +5.00 Add Low: spec adds up to +2.25D Add High: spec adds over +2.25D	SiH (somofilcon A), 56	No	86	Centre-near. UV inhibitor.
Coopervision	Biofinity multifocal	Monthly	8.6	14	-6.00 to +6.00 -6.50 to -10.00 (0.50 steps) Add: +1.00, +1.50, +2.00, +2.50 Designs: D, N	SiH (comfilcon A), 48	29 nights	142	Light blue handling tint.
Coopervision	Proclear 1 day multifocal	Daily	8.7	14.2	-6.00 to +6.00 -6.50 to -10.00 (0.50 steps)	H (Omafilcon A), 60	No	28	Single-add centre-near design. Light blue handling tint.
Coopervision	Proclear multifocal	Monthly	8.7	14.4	+6.00 to -6.25 -6.50 to -8.00 (0.50 steps) Add: +1.00, +1.50, +2.00, +2.50 Designs: D, N	H (omafilcon B), 62	No	17	Light blue handling tint.

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3.7 Disposable spherical multifocal

Supplier	Lens design	Replacement Frequency	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H ² 0	Approved extended wear	DK/t at -3.00	Comments
Coopervision	Proclear multifocal XR	Monthly	8.7	14.4	+6.00 to -6.25 -6.50 to -8.00 (0.50 steps) Add: +3.00, +3.50, +4.00 +6.25, +6.50 to +20.00 (0.50 steps) -8.50 to -20.00 (0.50 steps) Add: +1.00 to +4.00 (0.50 steps) Designs: D, N	H (omafilcon B), 62	No	Varies by Rx	Extended power range. Light blue handling tint.
Gelflex/ACL	Control Pro Sph Multifocal	Monthly	8.7	14.4	Sphere: +6.00 to -6.00 (0.25 steps) -6.50 to -8.00 (0.50 steps) Add: +1.00, +1.50, +2.00, +2.50 Designs: distance, near	H (omafilcon B), 62	No	27	Blue handling tint.
Gelflex/ACL	Control Pro Sph Multifocal - Extended Range	Monthly	8.4 8.7	14.4	Sphere: +6.50 to +15.00 (0.50 steps) -8.50 to -15.00 (0.50 steps) Add: +1.00, +1.50, +2.00, +2.50, +3.00, +3.50 Designs: distance, near	H (omafilcon B), 62	No	17	For high plus, high minus or high adds. Blue handling tint.
۲%۲	ACUVUE OASYS Multifocal	2-weekly	8.4	14.3	+6.00D to -9.00D Add low: +0.75D to +1.25D Mid: +1.50D to +1.75D High: +2.00D to +2.50D	SiH (senofilcon A), 38	7 days	147	Class 1 UV blocking. Visibility tint. 123 inversion marking.
1%1	1 Day ACUVUE MOIST Multifocal	Daily	8.4	14.3	+6.00 to -9.00 Add Low: +0.75 to +1.25 Mid: +1.50 to +1.75 High: +2.00 to +2.50	H (etafilcon A), 58	No	25.5	Visibility tint. 123 inversion marking. Class 2 UV blocking.
Menicon	Miru 1Day UpSide Multifocal	Daily	8.4	14.2	+5.00 to -6.00 (0.25 steps) -6.50 to -10.00 (0.50 steps) Add Low	SiH, 56	No	91	SmartTouch packaging
Menicon	Miru 1Month Multifocal	Monthly	8.6	14.2	+6.00 to -6.00 -6.50 to -13.00 (0.50 steps) Add: +1.00 or +2.00	SiH (asmofilcon A), 40	No	161	Decentered near zone for high add, temporal indicator.
SEED	1dayPure EDOF	Daily	8.4	14.2	+5.00 to -12.00 Add: +0.75, +1.50, +2.25	H, 58	No	42.9	Extended depth of focus. UV inhibitor. Light blue handling tint. 32 lenses per pack.
SEED	1dayPure Multistage	Daily	8.8	14.2	+5.00 to -10.00 Add: +0.75, +1.50	H, 58	No	42.9	Centre distance. UV inhibitor. Light blue handling tint. 32 lenses per pack.

3.8 Disposable toric multifocal

Supplier	Lens design	Replacement Frequency	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H²0	Approved extended wear	DK/t at -3.00	Comments
Capricornia	Mark'ennovy Saphir Rx Multifocal Toric	Monthly	6.80 to 9.80 (0.3 steps)	13.0 to 16.0 (0.5 steps)	+30.00 to -30.00, Cyl: -0.75 to -8.00, Axis: 0° to 180° (1° steps) Add +0.50 to +4.00 (0.50 steps)	SiH, 75	No	60	*Made to order
Capricornia	Mark'ennovy Gentle Multifocal Toric	Monthly	7.10 to 9.80 (0.3 steps)	13.0 to 16.0 (0.5 steps)	+30.00 to -30.00, Cyl: -0.75 to -8.00 Axis: 0° to 180° (1° steps) Add: +0.50 to +4.00 (0.50 steps)	H, 59/80	No	-	*Made to order. UV inhibited.
Capricornia	Mark'ennovy Blu: Gen Multifocal Toric and Blu:kidz Multifocal Toric	Monthly	6.50 to 9.80 (0.3 steps)	11.5 to 16.5 (0.5 steps)	+30.00 to -30.00, Cyl: -0.75 to -8.00, Axis: 0° to 180° (1° steps) Add: +0.50 to +4.00 (0.50 steps)	SiH 75	No	60	*Made to order. UV inhibited. Blue light filter.

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Seqirus (Australia) Pty Ltd Melbourne, Victoria I Ph: 1800 642 865.

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3.7 Disposable toric multifocal

Supplier	Lens design	Replacement Frequency	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H²0	Approved extended wear	DK/t at -3.00	Comments
Coopervision	Biofinity toric multifocal	Monthly	8.7	14.5	+6.00 to -6.00 -6.50 to -10.00 (0.50) +6.50 to +10.00 (0.50) Cyl: -0.75 to -5.75 (0.50) Axis: 5° to 180° (5° steps) Add: +1.00, +1.50, +2.00, +2.50 Designs: D, N	SiH (comfilcon A), 48	29 nights	116	Orientation line at 6 o'clock Light blue handling tint.
Coopervision	Proclear multifocal toric	Monthly	8.4 8.8	14.4	+6.25 to -6.25 -6.50 to -20.00 (0.50 steps) +6.50 to +20.00 (0.50 steps) Cyl: -0.75 to -5.75 (0.50 steps) Axis: 5° to 180° (5° steps) Add: +1.00 to +4.00 (0.50 steps) Designs: D, N	H (omafilcon A), 62	No	Varies by Rx	Orientation lines at 3 and 9 o'clock. Light blue handling tint.
Gelflex/ACL	Control Pro Toric Multifocal	Monthly	8.4 8.8	14.4	Sphere: +6.00 to -6.00 +6.50 to 20.00 (0.50 steps) -6.50 to -20.00 (0.50 steps) Cyl: -0.75 to -5.75 (-0.50 steps) Axis: 5° to 180° (5° steps) Add: +1.00, +1.50, +2.00, +2.50, +3.00, +3.50, +4.00 Designs: distance, near	H (omafilcon A), 59	No	21	Blue handling tint.

3.9 Myopia control

Supplier	Lens design	Replacement Frequency	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H²0	Approved extended wear	DK/t at -3.00D	Comments
Capricornia	Mark'ennovy MYLO	Monthly	7.10 to 9.80 (0.30 steps)	13.50 to 15.50 (0.50 steps)	-0.25 to -15.00	SiH, 75	No	60	*Made to order.
CLCA	NaturalVue	Daily	8.3	14.5	+4.00 to -12.25	H (etalfilcon A), 58	No	-	Centre distance multifocal with extended depth of focus optics. Visibility tint.
Coopervision	MiSight 1 day	Daily	8.7	14.2	-0.25 to -6.00	H (omafilcon A), 60	No	28	Dual-focus optics. Light blue handling tint.

3.10 Cosmetic tinted disposable

Supplier	Lens design	Replacement Frequency	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H²0	DK/t at -3.00D	Comments
Alcon	FreshLook ONE-DAY	Daily	8.6	13.8	Plano -0.50 to -6.00	H (nelfilcon A), 69	26	Available in blue, green, pure hazel and grey.
Alcon	FreshLook Illuminate	Daily	8.6	13.8	Plano -0.50 to -6.00 -6.50 to -8.00 (0.50 steps)	H (nelfilcon A), 69	26	Black limbal ring darkens and enlarges the iris.
Alcon	FreshLook COLORBLENDS	2-weekly	8.6	14.5	Plano +2.50 to +6.00 (0.50 steps) +2.00 to -6.00 -6.50 to -8.00 (0.50 steps)	H (phemfilcon A), 55	20	Available in true sapphire, blue, green, brown, grey, pure hazel, honey, turquoise, brilliant blue, gemstone green and sterling grey.
Alcon	Freshlook COLORS	2-weekly	8.6	14.5	Plano +2.00 to -6.00, -6.50 to -8.00 (0.50 steps) +2.50 to +6.00 (0.50 steps)	H (phemfilcon A), 55	20	Available in blue, green, violet and sapphire blue.
Alcon	FreshLook DIMENSIONS	2-weekly	8.6	14.5	Plano +2.50 to +6.00 (0.50 steps) -2.00 to -6.00 -6.50 to -8.00 (0.50 steps)	H (phemfilcon A), 55	20	Available in pacific blue, sea green and caribbean aqua.

3.10 Cosmetic tinted disposable

Supplier	Lens design	Replacement Frequency	Base curve (mm)	Diameter (mm)	Power range (D) (in 0.25 steps unless specified otherwise)	Type (material), % H²0	DK/t at -3.00D	Comments
Alcon	AIR OPTIX COLORS	Monthly	8.6	14.2	Plano +6.00 to -6.00 -6.50 to -8.00 (0.50 steps)	SiH (lotrafilcon B), 33	138	Available in pure hazel, blue, green, gray, brown, honey, brilliant blue, gemstone green, sterling gray, turquoise, amethyst and true sapphire.
Gelflex/ACL	Sofclear Classic,	Monthly	A Second	Enhance: H (methafilcon A), 55	27	Classic: blue, brown, green, grey. Retro: blue, green, grey, turquoise.		
	Retro, Enhance				-6.0 to -8.00 (0.50 steps)	Retro and Classic: H (polyhema), 43	10	Enhance: aqua, royal blue, evergreen
181	1 DAY ACUVUE DEFINE	Daily	8.5	14.2	Accent Style, Vivid Style, Natural Shine: Plano -0.50 to -6.00 -6.50 to -9.00 (0.50 steps) Radiant Chic, Radiant Sweet: Plano -0.50 to -6.00, -6.50 to -7.00 (0.50 steps)	H (etafilcon A), 58	25.5	Variants include Radiant Sweet™, Radiant Chic™, Natural Shine™, Accent Style & Vivid Style. Dark limbal ring that enlarges iris diameter. Class 2 UV blocking.

4.1 Conventional spherical

12-month replacement interval recommended.

Lens design	BOZR (mm)	Diameter (mm)	Power range (D)	Available materials	Dk (Fatt; mmHg)	Comments
Capricornia Contact Lens Omega	Any	Any	Any	Contaflex 38 Contaflex 55 Contaflex 58 Contaflex GM Advance 49 Definitive 74	9 19 21 16 - 60	Flat K +0.8
Capricornia Contact Lens Eycon Prescription Spherical	Any	Any	Any	Contaflex 38 Contaflex 55 Contaflex 58 Contaflex GM Advance 49 Definitive 74	9 19 21 16 - 60	Also available in thin design, bifocal and various tint colours. Flat K +10%. Custom tints available.
Contact Lens Centre Australia CLCA Custom Spheres	Made to order	Made to order	Made to order	Benz 38 Benz G5X Benz 45 Igel 58 Igel 67 Igel 77 Contaflex 75 Definitive 74	9 21 16 16 30 39 43 60	Standard tinting available. Opaque tinting also available.
Gelflex/ACL	Made to order	Made to order	Made to order	Benz 38 (Alpha) Gamma 49 Benz G3X 45G Benz G5X 55G (Delta)	9 15 15 21	3 month replacement option available for Gamma/Delta materials Clear or light blue handling tint.
Gelflex/ACL Definitive SiHy	Any	Any	Any	Definitive 74 Contaflex 75	60 43	3 month replacement option available Flat K +0.6. No handling tint.
Gelflex/ACL CooperVision custom design	Made to order	Made to order	Any	Benz 38 (Alpha) Gamma 49 Benz G3X 45G Benz G5X 55G (Delta) Definitive 74 (Definitive SiH)	9 15 15 21 60	Lens design provided based on topography maps sent to lab. Processing time 5 business days.
Gelflex/ACL CooperVision Zero 6 sphere design	Made to order	Made to order	Any	Benz 38 (Alpha) Gamma 49 Benz G3X 45G Benz G5X 55G (Delta) Definitive 74 (Definitive SiH)	9 15 15 21 60	Older design.
Gelflex/ACL Contaflex 75	Std range	Std range	Any	Filcon II 3/75	43	High water content lens. Suitable for extended wear, baby lens, bandage lens. Clear or blue handling tint.
Menicon Australia Menicon Soft 72	8.1, 8.4 8.4, 8.7, 9.0	13.0, 13.5, 14.0	+25.00 to -25.00 (0.25 steps)	72	34	Light blue visibility tint. Menicon logo and # indicating 8. # BC at 12 o'clock
Gelflex/ACL Contaflex 75	Std range	Std range	Any	Filcon II 3/75	43	High water content lens. Suitable for extended wear, baby lens, bandage lens. Clear or blue handling tint.
Menicon Australia Menicon Soft 72	8.1, 8.4 8.4, 8.7, 9.0	13.0, 13.5, 14.0	+25.00 to -25.00 (0.25 steps)	72	34	Light blue visibility tint. Menicon logo and # indicating 8. # BC at 12 o'clock

4.2 Conventional toric

12-month replacement interval recommended.

Lens design	BOZR (mm)	Diameter (mm)	Power range (D)	Available materials	Dk (Fatt; mmHg)	Comments
Capricornia Contact Lens NuToric	Any	Any	Made to order	Contaflex 38 Contaflex 55 Contaflex 58 Contaflex GM Advance 49 Definitive 74	9 19 21 16 - 60	Fit with Omega sphere (diam. 2.5 mm > HVID). 3 laser marks 15° apart. Thick/thin zone, non-prism ballast design.
Capricornia Contact Lens Eycon Balance Toric	Any	Any	Any	Contaflex 38 Contaflex 55 Contaflex 58 Contaflex GM Advance 49 Definitive 74	9 19 21 16 - 60	Also available in thin design. Flat K +10%. Laser engravings std at 6 oʻclock. Ink dot markings R-2 dots, L-1 dots at 12 oʻclock on request. Prism ballast design.
Capricornia Contact Lens Eycon Prescription Toric	Any	Any	Any	Contaflex 38 Contaflex 55 Contaflex 58 Contaflex GM Advance 49 Definitive 74	9 19 21 16 - 60	Also available in increased prism design and thin design. Flat K +10%. Laser markings std at 6 o'clock. Ink dot markings R-2 dots, L-1 dots at 12 o'clock on request. Prism ballast design.
CLCA Centra ST Toric	7.4-9.6	13.0-16.0	Any	Benz 38 Benz G5X Benz 45 Igel 58 Igel 67 Igel 77 Contaflex 75 Definitive 74	9 21 16 16 30 39 43 60	Standard tinting available. Opaque tinting also available. Lenses marked at 6 o'clock unless otherwise requested. Fitting instructions supplied for essential multifocal fitting.
CLCA Centra ST Q Toric			Any	Benz 38, Benz G5X Benz 45 Igel 58 Igel 67	9 21	-
CLCA Back Surface Toric	7.4-9.6	13.0-16.0			16 16 30	-
CLCA Front Surface Toric				lgel 77 Contaflex 75 Definitive 74	39 43 60	-
Gelflex/ACL Lenses Toric	Made to order	Made to order	Made to order -0.25 to -6.00 Cyl: in 1º steps	Benz 38 (Alpha) Gamma 49 Benz G3X 45G Benz G5X 55G (Delta)	9 15 15 21	3 month replacement option available for Gamma/Delta materials Markings: R - 1 Dot, L - 2 Dots. Tints available.
Gelflex/ACL CooperVision Proclear Tailor Made toric	Any	Any	Any	Benz 38 (Alpha) Gamma 49 Benz G3X 45G Benz G5X 55G (Delta) Definitive 74 (Definitive SiH)	9 15 15 21 60	Proclear design, customisable material.
Gelflex/ACL Definitive SiHy Toric	Any	Any	Made to order -0.25 to -6.00 Cyl: in 1º steps	Definitive 74	60	3 month replacement option available R marked with one dot, L marked with two dots. Clear or blue handling tint.
Menicon Australia Menicon Soft 72 Toric	8.1, 8.4, 8.7, 9.0, 9.3	13.0, 13.5, 14.0	-1.00 to -8.00 (0.25 steps) Max -2.75 Cyl: -0.75 to -2.75 Cyl: n 0.50 steps	Mipafilcon A 72	34	Light blue visibility tint. Menicon logo and # indicating 8. # BC at 12 o'clock, and centration dash at 6 o'clock.

4.3 Conventional multifocal/bifocal

12-month replacement interval recommended.

Lens design	BOZR (mm)	Diameter (mm)	Power range (D)	Available materials	Dk (Fatt; mmHg)	Comments
Capricornia Contact Lens SA multifocal/bifocal	Any	Any	Any Toric available Design: near	Contaflex 38 Contaflex GM Advance 49 Definitive 74	9 16 - 60	-
CLCA Blanchard's Essential Multifocal Toric	8.7	14.4	Any Designs: distance, near	Benz 45	16	-
Gelflex/ACL Multifocal/Bifocal	Any	Any	Any Toric available	Benz 38 (Alpha) Benz G3X 45G	9 15	Clear or light blue handling tint.

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References: 1, Steven, Philipp, et al. "Semifluorinated Alkane Eve Drops for Treatment of Dry Eve Disease - A Prospective, Multicenter Noninterventional Study," Journal of Ocular Pharmacology and Therapeutics 31 (8), 496-503 (2015). 2. Steven, Philipp, et al. "Semifluorinated Alkane Eye Drops for Treatment of Dry Eye Disease Due to Meibomian Gland Disease." Journal of Ocular Pharmacology and Therapeutics. 33(9), 678-685 (2017). Sponsored by Novalia GmbH. NovaTears® Eye Drops (Perfluorohexyloctane 100% v/v, 3mL) are for the lubrication and relief of dry and irritated eyes. Do and introduction to the NovaTears® which contact lenses. If using any other eye medication, allow at least 15 minutes between using the other product and applying NovaTears®. NovaTears® should not be used in children under 18 years. NovaTears® should not be used while pregnant or breastfeeding. AFT Pharmaceuticals Pty Ltd, Sydney. ABN 29105636413.



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4.4 Conventional specialty

Lens design	Replacement Frequency	BOZR (mm)	Diameter (mm)	Power range (D)	Available materials	Dk (Fatt; mmHg)	Comments
Capricornia Contact Lens Eycon Prosthetic/ Prosthetic BLENDS	Yearly	Any	Any	Any Pupil size 3, 4, 5, 6mm in clear or black (4mm standard)	Contaflex 38	9	Colours: Jet black, black, brown, hazel, grey. Colour Blends: blue, green, grey and hazel
Capricornia Contact Lens Hand painted opaque	Yearly	Any	Any	Any Pupil 10.5-12.5 (0.5 steps) Pupil sizes variable dependent on iris sizes 1.5-7.0mm	Contaflex 38	9	Painted to match supplied digital photo of other eye.
Capricornia Contact Lens Eycon E-58 Therapeutic	Yearly	10.0 std any	17.0 std any	Plano (therapeutic lens)	Contaflex 55 Contaflex 58 Definitive 74	19 21 60	Bandage lens.
Capricornia Contact Lens Soft Keratoconic (CSK sphere and toric)	Yearly	Any	Any	Any	Contaflex 55 Contaflex GM Definitive 74	19 16 60	Fit with plano trial lenses.
CLCA Soft K	3-6/12	7.4-9.6	12.5-16.0	Unlimited	Definitive 74	60	Soft keratoconus lens. Toric available.
CLCA Kerasoft IC	6 to 12 month replacement	7.9-9.4	14.5	Unlimited	lgel 77	39	Soft keratoconus lens.
CLCA Soft K	3-6/12	7.4-9.6	12.5-16.0	Unlimited	Definitive 74	60	Soft keratoconus lens. Toric available.
Gelflex/ACL Contaflex 75	Yearly	Std range	Std range	Made to order	Filcon II 3	43	High water content lens. Suitable for extended wear, baby lens, bandage lens.
Gelflex/ACL Novakone Soft Keratoconus	Bi-monthly or monthly, as decided by practitioner.	5.40, 5.80, 6.20, 6.60, 7.00, 7.40, 7.80, 8.20, 8.60 as standard. Others avail in 0.1 steps.	15 mm standard, others avail in 0.1 steps.	Sphere: +30.00 to -30.00 (0.25 steps) Cyl: Up to -10.00 (0.25 steps) Axis: 1° to 180° (1° steps)	Benz 45G	16	Sphere and toric



4.5 Conventional cosmetic tinted

Lens design	Replacement Frequency	BOZR (mm)	Diameter (mm)	Power range (D) Lenses are in 0.25 steps between +6.00 and +4.00 and 0.50 steps outside this range, except where noted	Available materials	Dk (Fatt; mmHg)	Comments
Capricornia Contact Lens Eycon E-58 Therapeutic	Yearly	10.0	17.0	Plano (therapeutic bandage lens)	Contaflex 38 Contaflex 55 Contaflex 58 Contaflex GM Advance 49 Definitive 74	9 19 21 16	Bandage lens. Recommended in Contaflex 58 or Definitive 74 material
Capricornia Contact Lens Eycon EyColours and EyColourBLENDS	Yearly	Any	Any	Sphere and toric Torics also available in Balance design.	Contaflex 38	9	EyColours: green, blue, chestnut brown, grey, hazel, sapphire blue, violet, aqua, jade green. EyColourBlends: blue, brown, grey, green, amethyst, honey and turquoise.
Contact Lens Centre Australia CLCA Colours	Material dependent (from 3-12 months)	Any	10-12	Sphere and toric made to order. Available in ultralight handling tint, light (10%), medium (20%), dark (30%), very dark, opaque.	Benz 38, Benz G5X Benz 45 Igel 58 Igel 67 Igel 77 Contaflex 75 Definitive 74	9 21 16 16 30 39 43 60	Opaque: blue, green. aqua, amber and brown. Special prices and conditions apply. Also available in transparent colours. Black pupil and iris also available.
Gelflex Opaque Tints	Yearly	Any	Any	Sphere and toric made to order.	Benz 38 (Alpha) Gamma 49 Benz G3X 45G Benz G5X 55G (Delta)	9 15 15 21	Opaque tints. Special conditions and prices apply.

Distributor	Warranty	Tints
Capricornia Contact Lens	6 month per case warranty includes 2 exchanges for spheres and 3 exchanges for toric designs, with 75-100% credit for unsuccessful fit. Credit applies to clear lens cost only for tinted lenses.	Blue, green, aqua, brown, violet, amber and grey. Ultralight, light, medium or dark. Custom tinting: brown, amber, aqua, yellow, grey, blue, green, violet, red, prosthetics, opaques, clear and black pupils. Good quality digital photographs are essential for matching. Stipulate HVID.
Contact Lens Centre Australia	Per case warranty includes up to 2 exchanges within first 4 months, and 50% unsuccessful fit credit on lens price only.	Blue, green, aqua, brown and amber. Stipulate density and HVID. Also available in opaque.
Gelflex/ACL	4 month per case warranty includes one exchange at no charge. Material fees will apply for exchanges thereafter. Non-adapt credit subject to lens design.	Blue, brown, green, aqua, violet, amber, red, grey, x-chrom. Handling: light, medium or dark. Must stipulate HVID. Can match tint colours.
Menicon	Per case warranty includes unlimited changes for toric lenses and 100% refund for non-successful fits in the first 3 months. No changes included for spherical lenses.	-

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5. Support & advice

Supplier	Telephone	Email	Name of contact	Direct email	Direct telephone
Alcon	1800 224 153	visioncareorders.anz@alcon. com	Alcon Customer Service	-	(02) 9452 9200
Bausch and Lomb (Bausch + Lomb)	1800 251 150	ausorders@bausch.com	Customer Service	Customer.Service@bausch.com	-
Capricornia	1300 650 994	info@capcl.com.au	Jodie Davenport	jodied@capcl.com.au	(07) 3208 8500
Contact Lens Centre Australia and NZ (CLCA/ CLCNZ)	1800 125 023	clca@bigpond.com.au	Alan or Whitney	consultant@corneal-lens.co.nz	(03) 9543 1811
Coopervision	1800 655 480	cs@au.coopervision.com	Customer Service	-	-
Gelflex/ACL	1800 335 559	-	Customer Service / Tech Support	aclorders@gelflex.com	(03) 9792 3127
Innovative Contacts	08 8122 6801	orders@innovativecontacts. com.au	Kendrew Smith Harold Gent	kendrew@innovativecontacts.com.au harold@innovativecontacts.com.au	0468 333 150 0437 305 905
Johnson & Johnson (J&J)	1800 125 024	ordervisanz@its.jnj.com	Customer Service	-	-
Menicon	1800 639 879	mail@menicon.com.au	Mark Whibley / Angelo Doumbos	mail@menicon.com.au	(08) 8277 4545
SEED	1300 37 37 18	info@seed-anz.com	William Tse	wtse@seed-anz.com	-
SynergEyes	-	Visit SynergEyes.com.au	Mark Hinds	mark@markhindsoptometrists.com. au	(07) 3358 6566

6. Back vertex distance table

		Vert	ex conversion chart (1	2mm)		
If Minus	[Sphere]	If Plus		If Minus	[Sphere]	If Plus
-3.87	4.00	+4.25		-9.37	10.50	+12.00
-4.00	4.25	+4.50		-9.75	11.00	+12.75
-4.25	4.50	+4.75		-10.12	11.50	+13.37
-4.50	4.75	+5.00		-10.5	12.00	+14.00
-4.75	5.00	+5.25		-10.87	12.50	+14.75
-5.00	5.25	+5.62		-11.25	13.00	+15.50
-5.12	5.50	+5.87		-11.62	13.50	+16.12
-5.37	5.75	+6.12		-12.00	14.00	+16.75
-5.62	6.00	+6.50		-12.37	14.50	+17.50
-5.75	6.25	+6.75		-12.75	15.00	+18.25
-6.00	6.50	+7.00		-13.00	15.50	+19.00
-6.25	6.75	+7.37		-13.50	16.00	+19.75
-6.50	7.00	+7.62		-13.75	16.50	+20.50
-6.62	7.25	+8.00		-14.12	17.00	+21.50
-6.87	7.50	+8.25		-14.50	17.50	+22.25
-7.12	7.75	+8.50		-14.75	18.00	+23.00
-7.25	8.00	+8.87		-15.12	18.50	+23.75
-7.50	8.25	+9.12		-15.50	19.00	+24.75
-7.75	8.50	+9.50		-15.87	19.50	+25.50
-7.87	8.75	+9.75		-16.12	20.00	+26.37
-8.12	9.00	+10.12		-16.50	20.50	+27.11
-8.37	9.25	+10.37		-16.75	21.00	+28.12
-8.50	9.50	+10.75		-17.12	21.50	+29.00
-8.75	9.75	+11.00		-17.37	22.00	+29.87
-8.87	10.00	+11.37		-17.75	22.50	+30.87





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*Both eyes combined. On an annualized basis in children 6-19. Retrospective analysis of 32 children, ages 6 to 19. across 10 different practice locations who wore the lenses for 6-25 months

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1. JJV Data on File 2017. Visual Performance of ACUVUE OASYS Brand 1-Day Contact Lenses with HydraLuxe Technology - Consumer Use Claims.

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 JJV Data on File 2016. Single-masked, 2-visit, bilateral wear, single arm 1-week DW dispensing study of 162 US habitual toric soft contact lens wearers in both eyes with a spherical distance refraction of -1.50D to -4.00D (inclusive), cylinder correction of 0.75D to 1.50D after vertex correction (inclusive) and refractive cylinder axis within 180+/-15 degrees or 90+/-15 degrees.

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MYOPIA MANAGEMENT

Dr Emma Gillies PhD BSc(Hons) MCOptom Director of Professional Services VTI APAC Dr Sally M Dillehay OD, EdD Chief Medical Officer, ClinTrialSolutions, LLC

New clinical evidence through five years: NaturalVue Multifocal

Myopia is no longer considered to be a normal variation of refractive error. Rather, its description as a disease state has become more widely accepted by the eyecare professional community. The impact of myopia on vision, quality of life and the economy is brought to life by the staggering statistics that, by 2050, it is expected nearly 5 billion people will be myopic.¹ That is almost half of the world's population.

Identifying children that may be at risk of developing myopia and implementing an intervention plan to minimise the rate of progression is becoming a routine part of full-scope optometry. Optometrists have many options available to manage myopia²: orthokeratology, pharmaceutical agents, spectacle lenses designed specifically for myopia management, and soft contact lenses (including extended depth of focus designs (EDOF), soft multifocal lenses and lenses designed purely for myopia management), yet there is no panacea. Optometrists need to understand the difference between these options and when to change the approach based on the evidence they have available to ensure the best possible outcome for their patients.

This article will review the interpretation of real-world evidence in clinical decision making and the role of a unique EDOF soft contact lens (NaturalVue 1 Day Multifocal) in myopia management from five-year clinical data.

By 2050, it is expected nearly 5 billion people will be myopic. That is almost half of the world's population

Evidence-based medicine

The concept of evidence-based medicine is defined as "the integration of best research evidence with clinical expertise and patient values" and has become accepted as a means to allow health care practitioners to make the most appropriate clinical decisions for their patients based on the best available evidence.³ Some research designs are more powerful than others in their ability to assess the efficacy of interventions. This has created the concept of a 'hierarchy of evidence'. This is a pyramidal-shaped framework that indicates which studies should be given the most weight when evaluating new information.³

Randomised clinical trials (RCTs) are generally considered to be the 'gold standard' of clinical research, and are thought to sit at the top of the 'evidence pyramid'.⁴

An RCT is a clinical study where the participants are randomised into one of two (or more) groups, one of which is a control group. The purpose of the randomisation is to remove selection bias that may influence the outcome. This ensures that any difference in outcome between the two groups can be explained by the treatment.⁴ One of the limitations of an RCT is the strict inclusion and exclusion criteria that are built into the research protocols, which often limit the age or refractive error range of suitable participants. Often this results in a group that does not reflect the variety of patients that are seen in everyday practice.

The highest level of clinical evidence is actually a systematic review (Figure 1). A systematic review is essentially filtered information – the author reviews all of the data in the different subcategories of clinical evidence (background information, case study reports, cohort studies etc.) and publishes their evaluation. In 2020, Walline and co-authors published a comprehensive Cochrane systematic review of 41 clinical studies describing the efficacy of different interventions on the rate of myopia progression in children.⁵

This is an excellent example of a well-constructed, unbiased review, giving the reader a balanced view of the published research that was included. But not all reviews are as impartial. Author bias may result in the omission of certain data sets or subgroups from the literature review, which ultimately impacts the conclusions. Thus, evidence-based data does not necessarily equate to unbiased data.



Figure 1

The Hierarchy of Evidence, adapted from EBM Pyramid and EBM Page Generator, copyright 2006 Trustees of Dartmouth College and Yale University. All Rights Reserved. Produced by Jan Glover, David Izzo, Karen Odato and Lei Wang. Cohort studies and case series analyses offer a different clinical perspective than RCT studies, as cohort studies and case series are more similar in design to how a practitioner would follow a clinical case over time. A case series analysis describes the outcome of an intervention on a small number of subjects and can be used to develop a hypothesis regarding the outcome for a given intervention. These studies are typically retrospective. In a cohort study, a group of patients is followed prospectively (although the data can also be gathered retrospectively) for a period of time to understand the impact of an intervention. The data presented in these studies provides data in a real-world setting.

Regulatory approval

RCTs are considered to be the gold standard required for the regulatory application and approval of a medical device, particularly in the US (for FDA approval), to examine the efficacy and safety of the intervention. However, the US FDA now acknowledges that RCTs are not necessarily truly applicable in real-world settings.⁶ CooperVision is the first and only company with a US FDA approved contact lens with a labeled indication for use for slowing the progression of myopia (MiSight). The US FDA required a post-market multi-year safety protocol study with a very large sample size, which can be prohibitive to smaller companies who may not be able to fund such work.

There is an increasing number of children that present to their optometrist with progressing myopia. An RCT requires very strict inclusion and exclusion criteria in order to control the data with two separate cohorts that are as equal as possible (through the randomisation) with regard to age, refractive error, sex etc., that can be followed over the defined period of the study. This, however, is not real life. Optometrists often see children with scripts that fall outside the inclusion criteria for an RCT. For instance, a young myopia child with a -4.25DS script would not have been accepted into the MiSight RCT (refractive error range -0.75 to -4.00DS⁷). RCTs give an indication as to what might be expected in a clinical setting for patients that fall within these tight criteria, but offer little insight into the impact of the intervention for patients beyond these limits.

In 2016, The 21st Century Cures Act was passed in the US, placing additional focus on real-world evidence and realworld data (pragmatic clinical studies) to support regulatory decision making.⁶ The FDA subsequently created a framework named Real World Evidence for evaluating the potential use of real-world evidence, acknowledging that RCTs do not represent what goes on in clinical practice, and are starting to accept real-world evidence in their submissions.⁸ CooperVision was in fact successful in using retrospective cohort data (in addition to the 3 year RCT data) to support the safety requirements of their submission for MiSight, and the FDA documented the retrospective cohort data as real-world evidence.7

A recent study by Hu et al found that the younger the child at the onset of myopia, the greater the likelihood of high myopia in adulthood.⁹

This is a very important study, where the change in refractive error of participants was documented for seven to eight years after recruitment in order to understand how much myopia they developed in this time frame. It is a cohort study and it adds significant evidence to the importance of early detection of myopia to minimise long-term myopic degenerative conditions. Real-world data and real-world evidence are becoming more widely accepted both in terms of supporting regulatory approvals and in helping practitioners make decisions on the most appropriate choice of intervention for their patients.

NaturalVue 1 Day Multifocal

The NaturalVue 1 Day Multifocal was originally designed as a means to correct presbyopia using a centre distance extended depth of focus (EDOF) design. It was a serendipitous event that began pre-clinical studies into its potential as a lens that could retard the rate of myopic progression. When Dr Sally Dillehay, Chief Medical Officer of Visioneering Technologies, saw the power profile curves of the lens she realised the design would shift the normal hyperopic image shell associated with a single vision lens in front of the retinal, creating a myopic retinal image shell. Dr Earl Smith, in his Charles F Prentice Award Lecture,¹⁰ proposed that modifying the peripheral refraction to eliminate peripheral relative hyperopia was a means by which myopic progression could be slowed. Dr Dillehay realised the optical design of NaturalVue 1 Day Multifocal could do just that, and began investigating its efficacy with pre-clinical trials.

NaturalVue multifocal EDOF design

The NaturalVue multifocal contact lens is a centre distance pure EDOF design, based on camera optics. The optical design has a rapid, continuous and uninterrupted increase in plus power starting approximately 5 microns from the optical centre of the lens and reaching between 6 and 11 dioptres of relative plus by the edge of the optic. This plus power creates a significant level of retinal blur which is suppressed at a cortical level, creating a virtual pinhole effect, and subsequently the EDOF and associated increased depth of field that the patient experiences (Figure 2). The power profile curve shows that both the tangential and sagittal image shells are brought in front of the retina (Figure 3). The early feasibility studies in chick eyes demonstrated that the lens design could halt the progression of up to 10D of myopia.^{11,12}





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Figure 3

Power curve of NaturalVue 1 Day Multifocal (This graph is a direct output from the NIMO (Lambda-X) wavefront sensor of a -3.00D NaturalVue multifocal lens over the central 5mm optic zone. The tangential profile is shown in red ("Instant") and the Sagittal profile is show in blue ("Radial").)

NaturalVue clinical data – real-world evidence

Dr Jeff Cooper and colleagues' article Case Series Analysis of Myopic Progression Control with a Unique Extended Depth of Focus Multifocal Contact Lens was the first peer-reviewed, published data describing the efficacy of NaturalVue 1 Day Multifocal in patients with progressing myopia.¹³ The data was taken from an in-depth retrospective case series analysis from 10 practices throughout the US. In this study, 32 children were used as their own historical control (since this was a retrospective study). The use of the child as their own historical control has been questioned as a reliable indicator of progression, the premise being that the progression of myopia slows over time until it finally stabilises. Chua et al mapped change in myopia progression over time according to age of onset and found that the change from one year to the next is almost linear. Thus, using the rate of change in the 12 months prior to fitting the patient with NaturalVue is a reliable indicator of what should be expected in the following 12 months if the lens did not impact the rate of progression.¹⁴

The amount of myopic progression (in diopters) over the 12 months prior to being fitted with NaturalVue was compared to the amount of myopic progression over the 12 months of wearing the lens. The wearing time ranged from six-25 months, and the data was annualised for comparison. The patients were progressing by almost a full dioptre in the 12 months prior to being fit with NaturalVue. This decreased to -0.04D after wearing NaturalVue for 12 months. This type of data is often presented in terms of a percentage change, but the interpretation of these percentages can be ambiguous. For example, it may not be clear if the 50% relates to all of the patients showing a 50% reduction in progression, or 50% showing 100% reduction in progression and 50% showing no change in progression, which would average out to 50% reduction. This uncertainty provided by average percentages does not really help a practitioner appreciate what change in myopic progression is likely to occur for the child they have sitting in their test chair.

Frequency distribution data is more practicable. Figure 4 shows the distribution of change in refractive error for each eye for in the patients in the study. Three out of four eyes (75%) showed a complete halting of their myopia progression, some experienced some slowing of their myopia progression and some continued to progress over this time frame. These results suggested that NaturalVue 1 Day Multifocal had a significant impact on slowing myopic progression in the patients observed in this study group.

Five-year clinical data

The updated five-year data includes 153 children (mean age 12.0 years) followed for six to 59 months. These new data add to the previously released study with an increase in the number of children and practices contributing, longer time points that the children were followed, and data on axial length change in a subset of children. The data were consistent at each time point (six-month intervals,

this data was not annualised), demonstrating approximately 0.90D decrease in myopic progression (approximately 90%) as compared to the rate of progression of children at these practices prior to wearing NaturalVue multifocal contact lenses (N=305 eyes). All timepoints were statistically significantly different from baseline (p < 0.00001). Throughout the six through 59 months points in time, the amount of myopia progression in children wearing NaturalVue Multifocal was consistently less than 0.125D.

Figure 5 shows the frequency distribution of the change in refractive error relative to baseline. The percentage of eyes showing complete halting of their myopia progression is lower, which is to be expected with longer term data. Sixty-five per cent of the group showed a reduction in myopia progression of 70% or more over the study period. For those children who did show myopic progression, the increase in myopia observed was a small amount, -0.29 +/- 0.30D (95% confidence interval -0.09 to -0.48). This means that we can be 95% confident that the children that do change will progress somewhere between a tenth and a half of a diopter per year.

The data show that over five years, NaturalVue 1 Day Multifocal continues to help minimise the progression of myopic refractive error in children who are wearing the lenses.

Axial length change

When the study group children first started wearing the NaturalVue 1 Day Multifocal, not many practitioners had instruments to measure axial length, thus the axial length data goes through three years (35 months) in a subset of 36 children. Axial length change (Mean +/- SD) from baseline averaged 0.11 +/- 0.14 mm at one year, 0.20 +/- 0.20, at two years, and 0.17 +/- 0.21 at three years. These children showed approximately 0.10mm of axial length growth per year of wearing the NaturalVue multifocal. These axial length data compare favourably to what would be expected for young children ages 8-12 for normal emmetropisation of about 0.10-0.13mm/year.¹⁵ This is a small sample, and further research is needed to fully understand the impact of NaturalVue 1 Day multifocal on axial length.

Distribution of % Change in Refractive Error



Figure 4

Frequency distribution of percentage change in myopia progression n=32.

These data show that after wearing NaturalVue 1 Day Multifocal for up to five years, the refractive error in many of these children is still showing minimal change over time, and that the axial length growth in those who have been followed over time is essentially the same as would be expected for normal emmetropic growth of the eye. In a subset of the data with only eight-12 year-olds, 95% of the children showed less than a 0.25D progression of myopia throughout the entire 36 month period.

A question that practitioners often ask is: how long children should continue using interventions aimed at slowing the progression of myopia? A large study from the University of Waterloo followed 6,400 people and found the average age when myopia stopped progressing was between 24 and 27 years old.¹⁶ Many practitioners think that myopia stops progressing at puberty or around age 14-18, but the COMET study found that at age 15, 50% of paediatric myopes were still progressing, and at age 18, 25% of myopes were still progressing.¹⁷ It is impossible to predict how any individual child will respond to an intervention for myopia, but the In the same way that we speak to patients with a family history of glaucoma or diabetes and other risk factors, we need to do the same for myopia. An analysis of data from 15,000 patients¹⁹ demonstrated that each additional 1.00D of myopia is associated with a 25% increase in visual impairment.²⁰ With a relationship between increasing myopia and increased frequency of ocular disease and visual impairment becoming more compelling, it is reasonable that reducing myopia should lower the risk for children over the longer term.²¹ Therefore, the days of merely correcting myopia in young patients needs to evolve.

A discussion of myopia and its risks should also touch on the interventions that have been shown to help reduce the progression of myopia. Where possible, encouraging young children, particularly if both parents are myopic, to increase outdoor time to around two hours per

day, is a good start. Studies have shown that such action, prior to the onset of myopia, may prevent myopia from beginning.² Decreasing near work time and increasing working distance has also been shown to help slow the progression of myopia.² Spectacle lens intervention has been used for many years with varying levels of success. More recent advances in spectacle lens technology, like the Defocus Incorporating Multiple Segment (DIMS) lens, have improved the effect seen. Orthokeratology has been used to correct myopia for decades, and now these lens designs have been applied to controlling the progression of myopia. Lastly, there are multifocal soft contact lenses. Some are standard designs, and some, like NaturalVue Multifocal 1 Day, are unique in their design approach. All of this information needs to be imparted to parents and their children to ensure that they are able to make informed decisions when it comes to their ocular health now and in the future.

evidence suggests 80% that for some children it may 93% showed decrease in refractive error change be beneficial to 70% continue to wear 65% showed a decrease of 70% or greater such interventions 60% through to their mid-twenties. 50% As optometrists, we all need to be 40% speaking to every myope in our 29.00% chairs, whether 30% they are children or parents of 20% children, about 11.90% 11.60% 11.60% the very real risks that occur long-10% 5.80% 5.50% 4.80% 3.20% 3.90% term when myopia 1.56% 2.30% 1.90% 1.56% progresses.18 0% 10.19% 20-20% 80-89% 90-99% Myopia 30-39% 40-49% 50-59% 60-69% 70-79% 100% Greater than 100% % Decrease in Refractive Error Change

Figure 5

Frequency distribution of percentage change in myopia progression n=305.

MYOPIA MANAGEMENT

Disclosure: Dr Emma Gillies is the Director of Professional Services for Visioneering Technologies ANZ and Dr. Dillehay is a Consultant to and the former Chief Medical Officer for Visioneering Technologies, Inc.

This information may describe uses for multifocal contact lenses that may have not been approved or cleared by the FDA for use for slowing the progression of myopia in the United States.

In the United States, NaturalVue (etafilcon A) Multifocal Daily Disposable Soft (Hydrophilic) Contact Lenses are indicated for daily wear for the correction of refractive ametropia (myopia and hyperopia), and/or presbyopia.

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