ACUVUE® Brand Contact Lenses for ASTIGMATISM

Performance and clinical evidence relating to toric contact lens design

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THE OPPORTUNITY

Would it surprise you to know that...

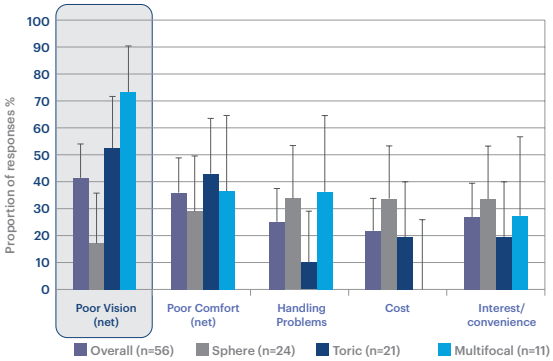
- Almost half of the UK population who require vision correction have astigmatism (≥0.75DC) in at least one eye.[1]

However...

- Only 21% of contact lens wearers are fitted with soft toric contact lenses.[2]

Would you consider not prescribing the cylinders the patient needs in their spectacles?

Patient reported reasons for discontinuing lens wear among new wearers in a prospective study.[3]



Error bars show 95% confidence intervals.

Missed opportunity?

- Toric contact lens wearers over- index in new wearer drop out.[3]

Why do new astigmatic contact lens wearers drop out?

- 50% of astigmatic drop out is due to poor vision.[3]

Consider how you determine if your patients are happy with their vision all day long during an aftercare.

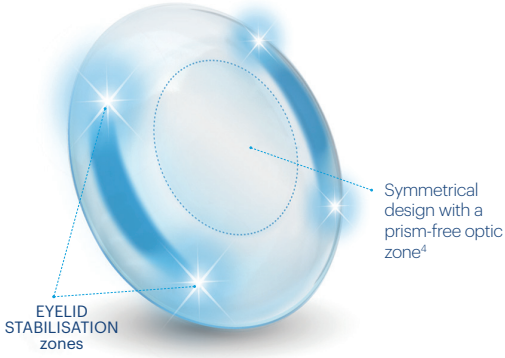
- Discomfort is the second most cited reason for drop out.[3]

THE SOLUTION

EYELID STABILISED Design Technology

- Designed to realign naturally with every blink and quickly orientate and stabilise within 3 minutes of initial insertion[4*]
- Uses a symmetrical design of four stabilisation zones interacting with both eyelids to stabilise quickly and maintain position[4]
- Consistent, stable vision even with eye or head movements[4]

EYELID STABILISED
FOR ASTIGMATISM



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* After 3 minutes, at least 96% oriented within 10 degrees and at least 83% within 5 degrees.

Clinical Evidence to Support Eyelid Stabilised Design

STABLE VISION

Would it surprise you to know that...

- Your patients may be experiencing fluctuating vision during different activities whilst wearing their toric lenses?
- Not all toric contact lenses are equal when it comes to stability of vision during head and eye movements?
- Some peri and prism-ballast designs may be affected by gravity to a greater degree than Eyelid Stabilised Design used in ACUVUE® Brand Contact Lenses for Astigmatism?

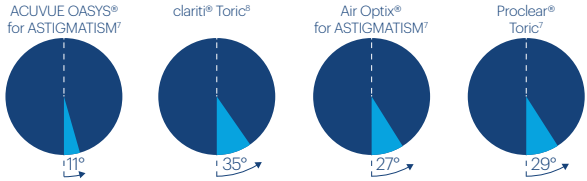
Supporting clinical evidence

Eye Movement

- In a clinical study which compared the stability of Eyelid Stabilised Design lenses to a prism ballast design in 20 adult subjects over a range of natural viewing conditions, Eyelid Stabilised Design was **significantly more stable during natural versional eye movements.**[5]
- In a separate study examining 68 eyes of 35 subjects, Eyelid Stabilised Design lenses demonstrated **significantly better postversion acuity** compared to prism ballast designs.[6]

Head Movement

- Two studies which investigated the rotation of a variety of toric lenses whilst patients were asked to lie on their side – quite like they might when watching TV – showed that Eyelid Stabilised Design lenses **rotated approximately 50% less** than other designs and **gave half a line better logMAR VA.**[7,8]



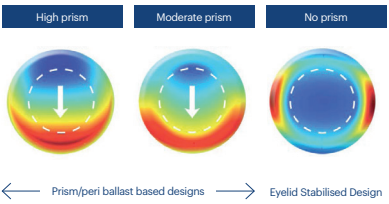
PRISM FREE OPTIC ZONE

Would it surprise you to know that...

- Patients who only need a toric contact lens in one eye may be leaving your consulting room with induced vertical prism?*
- Commonly prescribed prism ballast and peri ballast soft toric contact lens designs have base down prism in the optic zone.[4,9]
- The Eyelid Stabilised Design incorporated into all ACUVUE® Brand Contact Lenses for Astigmatism has no vertical prism in the optic zone.[4]

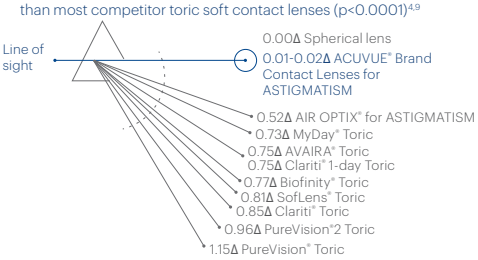
Supporting clinical evidence...

- A study computed vertical prism in a range of toric contact lenses using scanning transmission microscopy[4,9]



Key Clinical Findings

- ACUVUE® Brand Contact Lenses for Astigmatism do not have vertical prism in the optic zone and have significantly less base down prism than most competitor toric soft contact lenses ($p<0.0001$)[4,9]



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CONCLUSION

To help reduce drop out and ensure successful contact lens wear for your astigmatic patients, consider...

- Whether the toric contact lens you habitually fit stabilise effectively, regardless of the patient's eye and head movements?
- Whether the toric contact lens you habitually fit has vertical prism in the optic zone?*

ADDITIONAL CLINICAL BENEFITS OF ALL ACUVUE® BRAND CONTACT LENSES FOR ASTIGMATISM

MOISTURE-INFUSED
FOR HYDRATION

All ACUVUE® Brand Contact Lenses have moisture technology (PVP) embedded into the lens which enables the lens to mimic the mucin in the tears and help to provide exceptional comfort all day long.[10]

UV BLOCKING
FOR EYE HEALTH

All ACUVUE® brand contact lenses have Class 1 or Class 2 UV-blocking to help provide protection against transmission of harmful UV radiation to the cornea and into the eye.[10]

INVISIBLE EDGE
FOR COMFORT

The smooth edge profile found in all ACUVUE® Brand Contact Lenses fits the contour of the eye seamlessly for added comfort.[10]

1. Young G, Sulley A, Hunt C. Prevalence of astigmatism in relation to soft contact lens fitting. Eye Contact Lens. 201;37(1):20-25
2. UK Incidence study and JJV estimates 2016
3. Sulley A, Young G, Hunt C et al. Prospective evaluation of new contact lens wearer retention rates. Scientific paper presentation at BCLA/NCC conference, May 2016
4. JJV data on File, 2018. ACUVUE® Brand Contact Lenses for ASTIGMATISM overall fitting success, orientation position, rotational stability & vision performance
5. Zikos GA, Kang SS, Ciuffreda KJ et al. Optom Vis Sci, 2007;84:11 1039-45. (Lenses used were ACUVUE® ADVANCE for ASTIGMATISM Brand Contact Lenses & Soflens® Toric)
6. Chamberlain P et al. Fluctuation In Visual Acuity During Soft Toric Contact Lens Wear. Optom Vis Sci 2011; 88: 534-538. (Post version acuity was significantly better with ACUVUE OASYS® for ASTIGMATISM compared to Proclear Toric and PureVision Toric)
7. McIlraith R, Young G, Hunt C. Toric lens orientation and visual acuity in non-standard conditions. CLAE 2010;33(1):23-26
8. Hall L et al. Effect of Head and Gaze Position on Toric Soft Contact Lens Performance. BCLA poster presentation 2014
9. Sulley A et al. Resultant vertical prism in toric soft contact lenses. CLAE, 2015;38(4):253-7
10. JJV Data on File, 2018. ACUVUE® Master Brand Claims on Clinical Performance and Overall Material Properties
11. Jackson D et al. Vertical heterophoria and susceptibility to visually induced motion sickness. Strabismus. 2012;20(1):17-23
12. Du Toit R et al. Tolerance to prism induced by readymade spectacles: setting and using a standard. OVS 2007;84(11):1053-9

*Vertical heterophoria possibly caused by prism dissociation due to the presence of induced optical prism is a relevant factor for practitioners to consider when fitting toric contact lenses for monocular astigmats or those requiring a mix of toric soft contact lens designs.[11,12] Clinical studies have not been done to fully characterize the clinical effects of differences in base down prism among different contact lenses.

+ All ACUVUE® brand contact lenses have Class 1 or Class 2 UV-blocking to help provide protection against transmission of harmful UV radiation to the cornea and into the eye. UV-absorbing contact lenses are NOT substitutes for protective UV-absorbing eyewear such as UV-absorbing goggles or sunglasses because they do not completely cover the eye and surrounding area.

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