

Contact Lens Update

CLINICAL INSIGHTS BASED IN CURRENT RESEARCH

Myth 3: It is not worth correcting low astigmats with toric contact lenses

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“I can’t wear contact lenses because I have a ‘stigma.” This phrase or variations of it as uttered by a patient in the chair have likely been encountered by almost every eye care practitioner. While the profession understands this is clearly not true, does the impression of astigmatism being more difficult to correct in soft contact lenses still impact fitting practices? In only relatively recent history it may have appeared sensible to ‘hold-off’ recommending soft toric contact lenses for lower amounts of astigmatism: the lenses were more expensive, fitting took longer, and ultimately vision may not have been significantly improved over a spherical lens, with comfort potentially being worse. So is it really worth fitting all low astigmats with soft toric lenses? Do they benefit, and does it make a difference to fitting success?

Do low astigmats benefit from being fully corrected in soft contact lenses?

Studies have examined the effect of fully correcting low astigmats with toric soft contact lenses. In one study, high and low contrast vision, along with subjective responses were determined in low astigmats fit with both spherical and toric soft contact lenses (n=41, maximum cyl -1.25DC). The study found that both subjective and objective measures of vision were significantly improved when low astigmats were corrected with toric rather than spherical contact lenses.¹ Improvements in high and low contrast acuity in toric soft lenses compared to an aspheric design have also been reported elsewhere.²

Use of digital devices has been shown to be more comfortable when viewed by low astigmats wearing spherical contact lenses with their cyl corrected in a trial frame compared to use of no cyl correction.³ Safety issues have also been highlighted for the correction of low astigmats while driving.⁴ Interestingly this study found no significant difference in driving safety between no correction and spherical contact lenses, but a significant improvement in driving performance when toric contact lenses were used.⁴

A final point here concerns the potential for low astigmatism to be ‘masked’ when corrected with a soft spherical contact lens. A number of studies have examined this assumption and concluded that spherical soft contact lenses, even those with a higher modulus, do not mask the astigmatism present in the ocular system.⁵⁻⁷

When vision is not optimized

Drop out from contact lens wear remains a significant issue of course, with the most common reasons being cited as discomfort and dryness.⁸ However, a recent study followed the progress of neophytes fit with contact lenses to determine the retention rate over the first year.⁹ After twelve months, over a quarter (26%) had ceased contact lens wear and of those, a quarter dropped out in the first month, and nearly half (47%) within the first two months. An important finding was that the most commonly cited reason for drop out in this new wearer group was poor

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vision (47% of cases), followed by issues with comfort (25% of cases). These results show the importance of optimising vision for all contact lens wearers in order to maintain their levels of satisfaction with contact lens wear and to help prevent drop out.

Current fitting practices

For some practitioners, the perception of early soft toric contact lenses may have been one of lower than anticipated success rates in terms of comfort and vision, combined with increased chair time and repeat visits to fit. Modern soft toric contact lenses have moved the bar in terms of these concerns. When soft toric lenses were fit to three different groups: neophytes, lapsed toric wearers, and wearers of spherical lenses, the overall fit success rate was high at 92%, with 88% of lenses fit at the first attempt.¹⁰ These results demonstrate the ease at which current soft toric lenses can be successfully used in practice.

The increase in availability of easy to fit, modern toric designs with reliable on-eye performance naturally influences fitting practice. The annual international contact lens prescribing report provides a snapshot of current global fitting practices. For single vision soft lens fits in 2017, wide variation in the proportion of spherical to toric lenses used was found by country. Toric lenses were used less than 10% of the time in Moldova, through to a high of nearly 70% in Austria.¹¹

A recent review of a large data set of spectacle prescriptions determined 41% of all eyes have a minimum of -0.75DC in at least one eye.¹² Applying that incidence to the graph of prescribing practices shows just over half of the countries surveyed are meeting or even exceeding that average in terms of the proportion of their single vision soft lens fits which are toric (Figure 1).

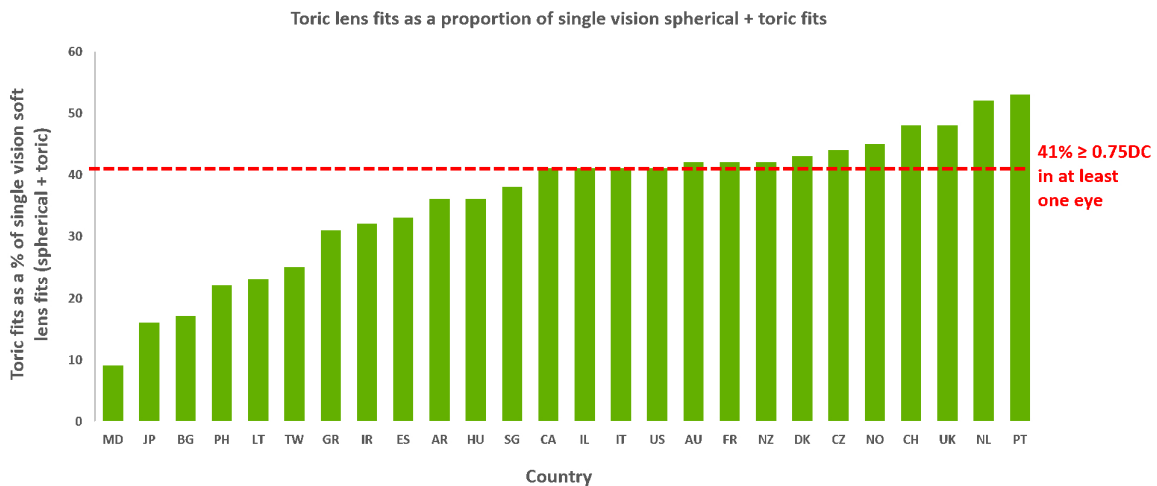


Figure 1: Prescribing of toric lenses as a proportion of single vision spherical lenses (adapted from Morgan P et al. International contact lens prescribing 2017. CLS Jan 2018)

Where countries are prescribing soft toric lenses to around 41% of their patients it suggests proactive fitting of low astigmatism. Given the evidence for the benefits of fully correcting astigmats, in combination with propensity for early drop out due to problems with vision, this describes positive fitting practice likely to benefit both the patient and business.

In practice

It is not worth correcting low astigmats with toric lenses? A myth. An outdated view as suggested by currently available evidence. Fitting data in many countries already reflects proactive prescribing practices from -0.75D of astigmatism. Where the proportion of toric lens fits still has opportunity to increase, it may be helpful to remember the following:

- There are visual and quality of life benefits to fully correcting low astigmats in contact lenses
- Optimising vision should help to reduce early drop out from contact lens wear
- Chair time to fit modern soft toric lenses should not be increased compared to spherical soft lens fits
- Offer patients all of their options, show them the difference in vision and enable them to make an informed choice

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