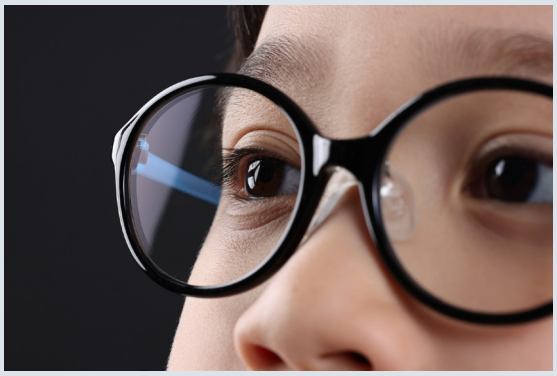
ZEISS MyoCare Portfolio

Expert Digest from ARVO 2025

Multicenter Clinical Trials Confirming Sustained Efficacy

Two-year results from an **on-going multicenter trial in Asia** (trial 1, NCT05288335) indicate that both ZEISS MyoCare and ZEISS MyoCare S lenses continue to significantly slow myopia progression compared to single vision lenses.



OVERVIEW OF TRIAL 1

240 Chinese children aged 6 to 13 years, spherical equivalent refractive error **(SE) -0.75 D to -5.00 D**, were enrolled and randomly assigned to single vision lenses (SV, N = 80), ZEISS MyoCare spectacle lenses incorporating cylindrical annular refractive elements with a mean surface power of +4.6 D and a central clear zone of 7 mm (N = 80), or ZEISS MyoCare S spectacle lenses incorporating cylindrical annular refractive elements with a mean surface power of +3.8 D and 9 mm central clear zone (N = 80).

One-year results from an **on-going multicenter trial in Europe** (trial 2, NCT05919654) show that ZEISS MyoCare lenses significantly slowed myopia and reduced the risk of fast progression (defined as -0.50D or greater over 12 months) compared to single vision lenses. Additionally, MyoCare lenses also slowed myopia compared to progression before use of MyoCare.

OVERVIEW OF TRIAL 2

234 Caucasian children aged 6 to 13 years, **SE -0.75 D to -5.00 D**, with a past annual progression of at least -0.50 D, were enrolled and randomly assigned to SV lenses (N = 119) or ZEISS MyoCare spectacle lenses incorporating cylindrical annular refractive elements with a mean surface power of +4.6 D and a central clear zone of 7 mm (N = 115).

Comparison of one-year results between Asian and European populations indicated that ZEISS MyoCare was **equally effective across different ethnicities**.

Clinical Context

The **global prevalence of myopia and high myopia is rising**, causing substantial health and financial burden. With strategies employed to prevent and slow the progression of myopia, it is crucial to **establish efficacy from robust evaluations** involving diverse ethnic groups, large samples, multiple locations, and long study periods.

In **two on-going, prospective, double-masked, parallel-group, multicenter clinical trials across China and Europe**, ZEISS MyoCare lenses are being evaluated for their effectiveness in slowing myopia.

Results from both trials were presented at the **2025 annual meeting of the Association for Research in Vision and Ophthalmology** (ARVO), May 4th to 8th in Salt Lake City, Utah. USA.

Key Results - Myopia progression in SE and AL

TRIAL 1, ASIAN EYES (NCT05288335)

After two years of lens wear, compared to single vision (SV) lenses, **progression of myopia was significantly slower** with ZEISS MyoCare and ZEISS MyoCare S lenses. The difference in progression between MyoCare, MyoCare S and SV lenses for spherical equivalent refractive error (SE) and axial length (AL) were[1]

ZEISS MyoCare

0.44D

average reduction of **refractive error**.

0.20mm

average reduction of **axial length progression**.

ZEISS MyoCare S

0.41D

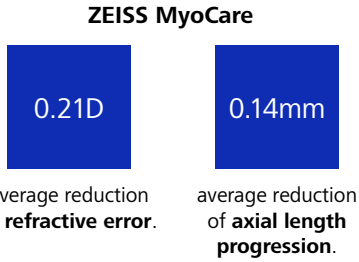
average reduction of **refractive error**.

0.17mm

average reduction of **axial length progression**.

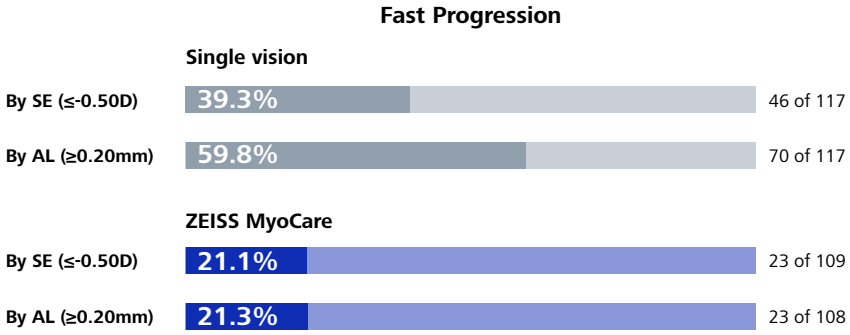
TRIAL 2, EUROPEAN EYES (NCT05919654)

The one-year results of trial 2 are published in the journal Ophthalmic and Physiological Optics[2]. In summary, after one-year of lens wear, **slower progression was seen with ZEISS MyoCare as compared to SV lenses**.



Reduction of fast progressors

Additionally, fewer ZEISS MyoCare wearers exhibited fast progression (-0.50D or greater SE, and/or 0.20mm or greater AL elongation)[3]



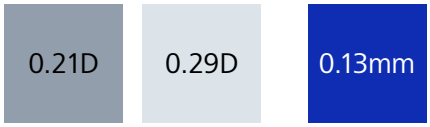
Tolerability and subjective feedback

Subjective ratings indicate that children adapted to ZEISS MyoCare lenses. Assessments after one week indicate that vision (including distance vision, near vision, vision during sports and daily activities) was overall rated as good to very good[4].

Additionally, compared to past SE progression, ZEISS MyoCare was more effective than SV in slowing myopia, and this was irrespective of age of the individual[5].

Efficacy in Asian versus European Eyes

It is established that among all ethnicities, the East-Asian ethnicity has a higher prevalence and greater progression of myopia. If ethnicity influences onset and progression, does it also have implications for myopia control treatments? **Comparison of data from Trial 1** (Asian children) **and Trial 2** (European children) **confirmed that 1-year progression was higher with SV lenses in Asian children**. **Despite this difference, ZEISS MyoCare lenses were effective in slowing myopia equally across both ethnicities**. The absolute mean differences between MyoCare and SV for SE were 0.29D and 0.21D in Asian vs European children and 0.13mm in AL for both ethnicities[6].



A virtual model to estimate progression with SV lenses

Due to myopia control treatments becoming standard of care, there are ethical and practical challenges in assigning children to SV groups in clinical trials. This necessitates a **need to establish methods against which to compare myopia treatments**. A meta-analysis of published data on myopia progression in Chinese children with SV spectacles and contact lenses was conducted, data extracted, and **a model developed to estimate myopia progression in SV lenses for up to 3 years**. This model offers a valid alternative to assigning children to SV lenses in randomized clinical trials and can also be additionally used to demonstrate progression in SV lenses. For a 10-year-old myopic child, progression was estimated at an average of 0.36mm, 0.63mm and 0.84mm after 1, 2 and 3 years of SV[7].

References
1. Chen, X., et al. (2025, May 4-8). Slowing myopia progression with cylindrical annular refractive elements (CARE) – results from a 2-year prospective multicenter trial. [Conference presentation abstract]. The Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Salt Lake City, UT, United States.
2. Alvarez-Peregrina, C., et al. Clinical Evaluation of MyoCare in Europe – the CEME Study Group. Clinical evaluation of MyoCare in Europe (CEME) for myopia management: One-year results. Ophthalmic Physiol Opt. 2025 Apr 29. doi: 10.1111/opo.13517. Epub ahead of print. PMID: 40296784.
3. Alvarez-Peregrina, C., et al. (2025, May 4-8). Analysis of fast myopia progression and eye growth reversal in the Clinical Evaluation of MyoCare® in Europe (CEME) study after 12 months wearing CARE lenses. [Conference presentation abstract]. The Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Salt Lake City, UT, United States.
4. Sanchez-Tena, M.A., et al. (2025, May 4-8). Adaptation and Visual Performance of CARE Spectacle Lenses: Findings from the Clinical Evaluation of MyoCare® in Europe (CEME) Study. [Conference presentation abstract]. The Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Salt Lake City, UT, United States.
5. Ohlendorf, A., et al. (2025, May 4-8). Myopia progression in children: Comparison of progression one year before and during participation in a randomized controlled clinical trial. [Conference presentation abstract]. The Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Salt Lake City, UT, United States.
6. Liu, X., et al. (2025, May 4-8). Validation of a virtual control to estimate progression projections of myopia in Chinese children. [Conference presentation abstract]. The Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Salt Lake City, UT, United States.
7. Sankaridurg, P., et al. (2025, May 4-8). Myopia control efficacy in Asian versus European eyes with spectacle lenses incorporating cylindrical annular refractive elements (CARE). [Conference presentation abstract]. The Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Salt Lake City, UT, United States.