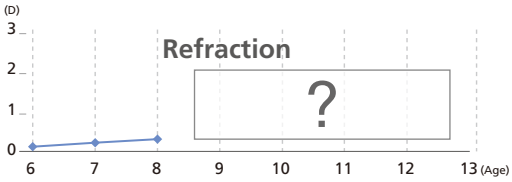
NIDEK

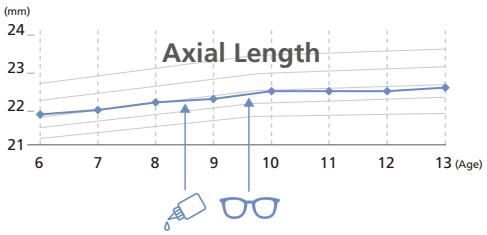
What refraction misses, axial length measures.

Accurate data enables timely and effective care — and builds patient trust.

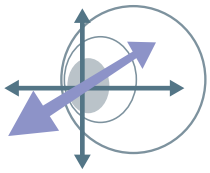
How much do you trust auto refractometer results in children? According to Rauscher et al. (2019)*2, the repeatability (95%) of the spherical equivalent for non-cycloplegic autorefraction is ±1.49 D, while under cycloplegia, it is ±0.50 D in children's eyes. Although the benefits of cycloplegia are well established, it carries some risks of side effects, and the wait times for dilation can affect clinic workflow, limiting routine use.



However, axial length is a non-invasive and more sensitive parameter — **our optical biometer measures with a precision of ±0.05 mm, offering nearly four times the accuracy of cycloplegic autorefraction.** This enables the detection of subtle myopic changes that autorefraction may miss, leading to timely, appropriate intervention and management. This data-driven consultation builds confidence in both patients and practitioners — supporting better long-term visual outcomes for children.

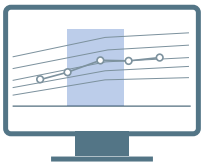


What differentiates the AL-Scan M + MV-1?



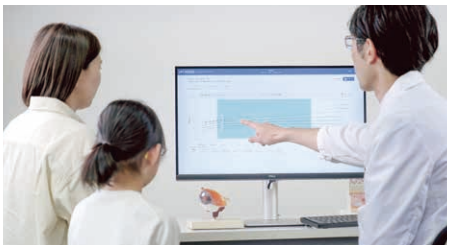
AL-Scan M - Easy. Quick. Accurate.

- 3D auto tracking + auto shot for easy, quick measurement even for children.
- Axial length measurements are as accurate as the NIDEK AL-Scan that is used in cataract surgery practices worldwide.



MV-1 - Visualize progression and treatment outcomes.

- Monitoring the progression of axial length
- Comparison with age-based growth curves
- Treatment record
- Refraction data, the amount of outdoor/near vision activities
- Patient-friendly take-home myopia report



*1 Haarman AEG, Enthoven CA, Tideman JWL, Tedja MS, Verhoeven VJM, Klaver CCW. The Complications of Myopia: A Review and Meta-Analysis. *Invest Ophthalmol Vis Sci.* 2020;61(4):49. doi:10.1167/iovs.61.4.49

*2 Rauscher FG, Lange H, Yahiaoui-Doktor M, et al. Agreement and Repeatability of Noncycloplegic and Cycloplegic Wavefront-based Autorefraction in Children. *Optom Vis Sci.* 2019;96(11):879-889. doi:10.1097/OPX.0000000000001444

NIDEK Myopia Suite

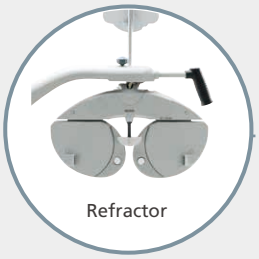
Combined follow-up of axial length and refraction

The MV-1 seamlessly imports objective/subjective refraction data from a NIDEK Auto Refractometer / Refractor. It allows follow-up of refraction and axial length in the same display.

Auto Refractometer

Ref (Obj.)

BCVA



Refractor

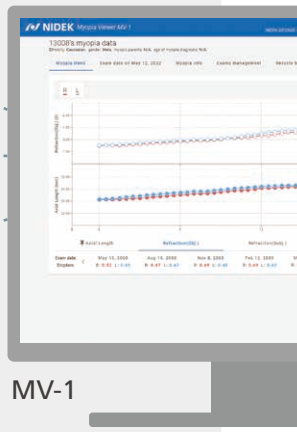
NEW Ref (Subj.) BCVA

AL-Scan M

AL

K

PS

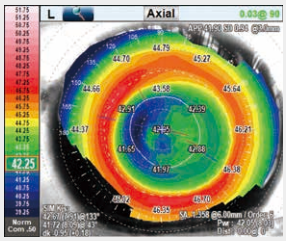


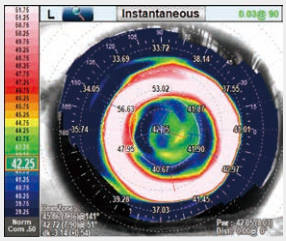
MV-1

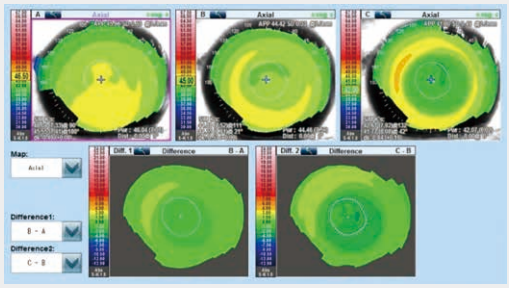
Corneal topography for Ortho-K prescription

The OPD-Scan III and OPD-Scan III VS can measure keratometry and eccentricity values and check lens centration. Additionally, the OPD-Scan III can evaluate the clinical process using the differential map.

OPD-Scan III



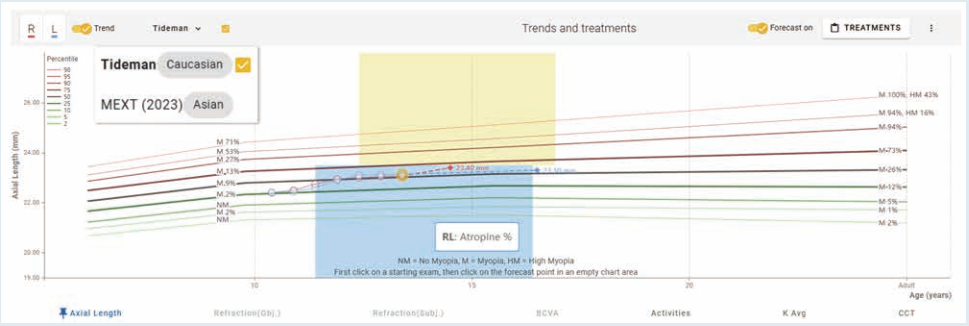




New Features of MV-1

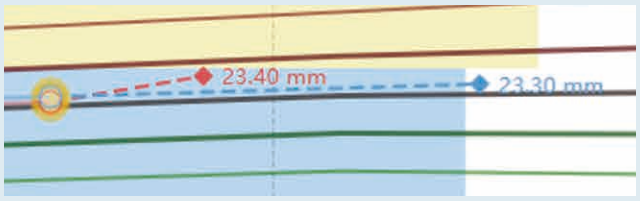
Selectable growth curves - Asian data is now available!

In addition to Tideman graphs for Caucasian patients, MV-1 incorporates trend data for Asian patients as defined by the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) in Japan.



Manual line drawing function

The clinician can manually draw a line that shows the possible trajectory for axial length in the future. This function allows patients to better understand how their myopia may progress over time, leading to better engagement for management and lifestyle changes.



Tideman JWL, Polling JR, Vingerling JR, et al. Axial length growth and the risk of developing myopia in European children. *Acta Ophthalmol.* 2018;96(3):301-309. doi:10.1111/aos.13603

Users Voice

Testimonials from users worldwide

Cari Cannon, OD
Guide Myopia Treatment Decisions With Axial Length Measurements

Product/model name: OPTICAL BIOMETER AL-Scan, REFRACTIVE POWER / CORNEAL ANALYZER OPD-Scan III
Brochure and listed features of the device are intended for non-US practitioners.
The availability of products differs from country to country depending on the status of approval.
Specifications may vary depending on circumstances in each country.
Specifications and design are subject to change without notice.

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