

OPTICAL BIOMETRY

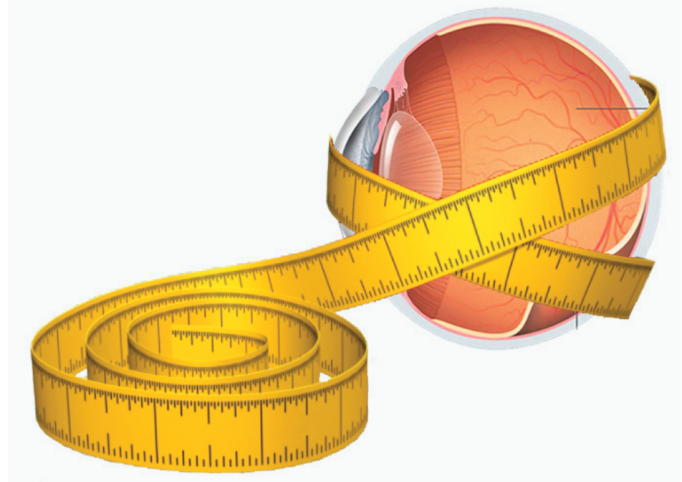
ITS ROLE IN MYOPIA MANAGEMENT

What is the Concern?

We have seen a rise in the prevalence of myopia across the globe. In 2010, 28% of the world's population was diagnosed with myopia. By 2050, that number could reach 50%.¹

With its growing prevalence and the increased risk of associated ocular pathology,² practitioners are encouraged to monitor myopia by more than refractive error alone.

Studies show that changes in axial length are most related to myopia progression.³



Axial length is a measurement of the anterior chamber depth, lens thickness, and vitreous chamber depth

Optical vs. Ultrasound Biometry



Technology: Optical biometry uses an infrared light wave that has 8x the resolution of a 10MHz ultrasound wave.



Reliability: Optical biometry measures approximately 0.01mm, which is equivalent to 0.03 diopters. Ultrasound biometry measures approximately 0.10mm, which is equivalent to 0.30 diopters.



Repeatability: Due to its non-contact nature, optical biometry is automated and more repeatable. Ultrasound requires accurate placement of a probe onto the eye.



Patient Experience: Optical biometry offers improved comfort as it is non-contact and can take multiple measurements in a very short period of time. Ultrasound requires contact with the cornea and the use of topical anesthesia.

1. Padmaja Sankaridurg et al; IMI Impact of Myopia. *Invest. Ophthalmol. Vis. Sci.* 2021;62(5):2.

2. Kyoko Ohno-Matsui et al; IMI Pathologic Myopia. *Invest. Ophthalmol. Vis. Sci.* 2021;62(5):5.

3. James S. Wolffsohn et al; IMI – Clinical Myopia Control Trials and Instrumentation Report. *Invest. Ophthalmol. Vis. Sci.* 2019;60(3):M132-M160.