OCULUS Myopia Master® Refraction, Axial Length and Keratometry





THE SOLUTION FOR THE FUTURE

Required Measurements and Follow-up of Myopia

The new Myopia Master[®] is the first device to combine the important measurement parameters for making myopia management much easier and more reliable than ever. Other risk factors, such as ethnicity, number of myopic parents as well as time spent with near-vision and outdoor activities influence the growth of the eye and should also be recorded initially in children.



Refraction

A commonly used method for measuring myopia is by refraction. However, day-to-day measurement variability and the need to be able to perform refractions in children with induced cycloplegia require additional parameters for a professional myopia management.

Axial length

This can be measured accurately and independently of accommodation. Progression in axial length is a reliable indicator of progression in myopia. Axial length measurement is the gold standard for myopia management.

Keratometry

The central corneal radii, as the primary refractive component of the eye, can be automatically measured and clearly displayed. The reliability of each measurement is shown by the quality specification.



THE BEGINNING OF A NEW ERA

Myopia Management Redefined

The Myopia Master[®] is the world's first device to combine the important measurement parameters for myopia management: refraction, axial length and central corneal radii.

With myopia prevalence increasing in children, adolescents and young adults and growing exponentially overall, it is becoming more and more important to monitor for myopia early on in life. Simply put: The earlier myopia is discovered, the better. Children should therefore be regularly tested for myopia from the age of four.



Age-related normative data

The values of different parameters (i.e. axial length, refraction) are visualized in a normative data cloud, providing a quick and meaningful classification of the eye's geometry relative to normal values. Any progression in axial length or refractive error is highlighted, the overall myopia risk is displayed in a colour bar.

Colour codings in the questionnaire help in assessing myopia risk

In determining the risk of developing myopia it is important to also consider factors not apparent in the eye's geometry, e.g., the number of myopic parents or the time per day spent with outdoor and with near-vision activities such as reading. These factors are sampled in a questionnaire using colour bars and smiley face scales for the patient's orientation.





INTUITIVE SOFTWARE

Myopia Software and a Take-home Report

With all relevant data just a click away, the Myopia Master[®] software will serve you well in consulting with your patients. All patient data are available to you at any time via the display or a linked computer. Findings are illustrated with colour codings and elucidated with detailed information for ease of understanding for patient, ophthalmologist and optometrist alike.

Evaluation		_		
Data Evaluation			Treatment Recommendations Drugs aropine [0,5% v daily. Contact Lenses	Lifestyle Recommendations
small Myopic Parents	Dutdoor Activity	high < 1 h		reduce time & increase distance when using a smartphone reduce time & increase distance when using a tablet reduce time & increase distance when using a computer do breaks and relax vision in far distance regularly when readir remove glasses when reading or studying use proper illumination when reading
10.4 11.5 small intermediate	high		next examination	e-mail

Risk factors and treatment recommendations

Risk factors operationalized in the software are systematically sampled and visualized with an intuitive traffic light coding. This assists the examiner in assessing the risk of myopia, enabling him to give quick initial treatment recommendations on a systematic basis.



Detailed take-home report for the patient

The printout shows the measurement results and the overall myopia risk along with recommendations for action and concise background information on myopia. This will enhance the patient's understanding and convey the importance of regular check-ups

MONITORING MYOPIA

Myopia and its prevalence

Object sights do see is shildred

Short-sightedness in children and adolescents on the rise

When it comes to the spread of myopia some studies already speak of an epidemic. The well-known Brien Holden Vision Institute has forecast that by the year 2050 one out of two individuals could be affected by myopia.

Risk of severe eye disease on the rise

Those affected also have a greater risk of developing severe eye disease such as cataract or retinal detachment and eventual blindness. This development is all the more alarming as more and more of its victims are young.

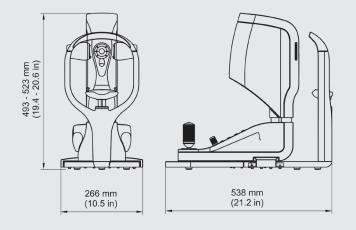
Stay tuned at www.myopia-master.com

Myopia occurs when the eyeball is too long, relative to the refractive power of the cornea and lens of the eye. An extension of the eye by one millimeter, from 24 mm to 25 mm, produces about 2.7 dioptres of myopia.



OCULUS Myopia Master® Technical Data

Axial length	
Measuring range	14 - 40 mm
Autorefractor	
Corneal vertex distance (CVD)	0; 10.5; 12; 13.75; 15; 16.5 mm
Sphere	-20 - +22 D (CVD = 12 mm)
Cylinder	10 D (CDV = 12 mm)
Axis	0° to 180° (in 1° increments)
Minimum measurable pupil diameter	2.5 mm
Fixation target	hot air balloon over a landscape
Technical specifications	
Dimensions (W x D x H)	266 x 538 x 493 – 523 mm
Weight	approx.12 kg
Voltage	100 - 240 V AC
Frequency	50 - 60 Hz
Interface	USB
Standard accesories	Thermal printer, TFT – LCD 5.7 in (touchscreen)



WWW.OCULUS.DE



OCULUS Optikgeräte GmbH

Postfach • 35549 Wetzlar • GERMANY Tel. +49 641 2005-0 • Fax +49 641 2005-295 Email: export@oculus.de • www.oculus.de

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