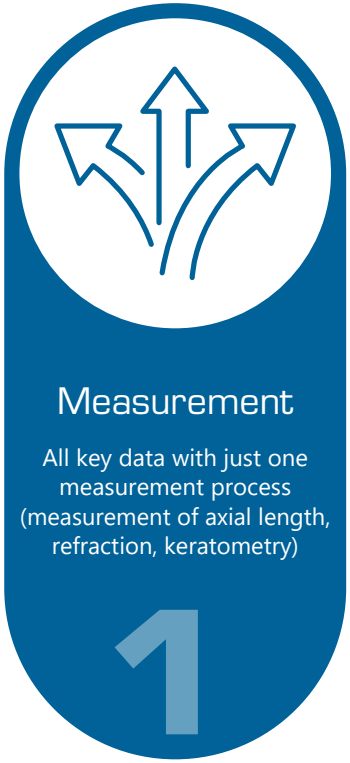
OCULUS Myopia Master®

Refraction, Axial Length and Keratometry

OCULUS®

Myopia management in 5 Steps

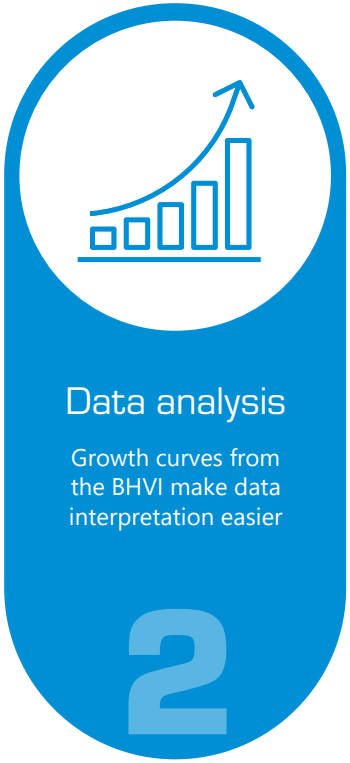
Easy and professional



Measurement

All key data with just one measurement process (measurement of axial length, refraction, keratometry)

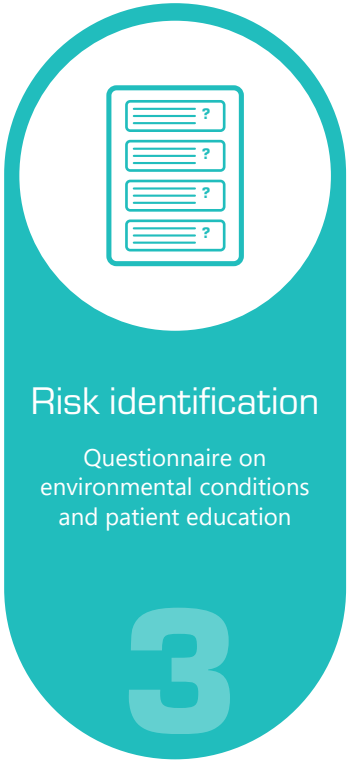
1



Data analysis

Growth curves from the BHVI make data interpretation easier

2



Risk identification

Questionnaire on environmental conditions and patient education

3

Myopia Report

Evaluation-based treatment recommendations to provide a clear list for the patient

4

Growth analysis

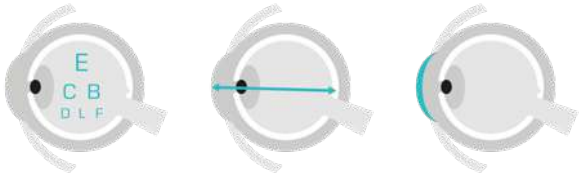
For visible treatment success

5

MYOPIA MASTER

Myopia management: All important parameters in one device

Refraction, axial length, and keratometry are the main measures required for professional myopia management, but only in combination do they allow for individualized treatment and counselling.



Fast and contactless measurement

The Myopia Master® performs fast measurements of the most important parameters relating to myopia development. The measurement process only takes two minutes, is contactless and completely painless.

Reliable and reproducible results

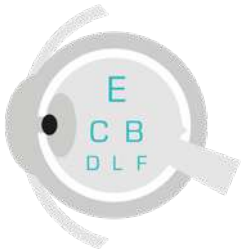
The standard deviation of repeated measurements of axial length is about 0.02 mm equivalent to a refractive error change of 0.05 D.

Exclusive myopia management software

- The software guides you through the entire myopia procedure.
- It takes into account specific risk factors.
- The software generates the Myopia Report for patient education at home.

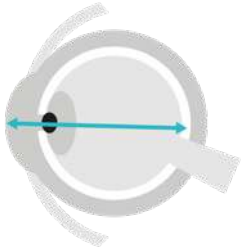
1 MEASUREMENT

One measurement process, three parameters



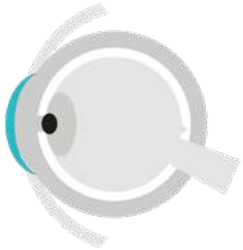
Refraction

A refraction measurement is carried out in a matter of seconds and determines the eye's refractive error. The sphero-cylindrical combination forms both the basis for subjective refraction and is also a fundamental parameter for myopia management.



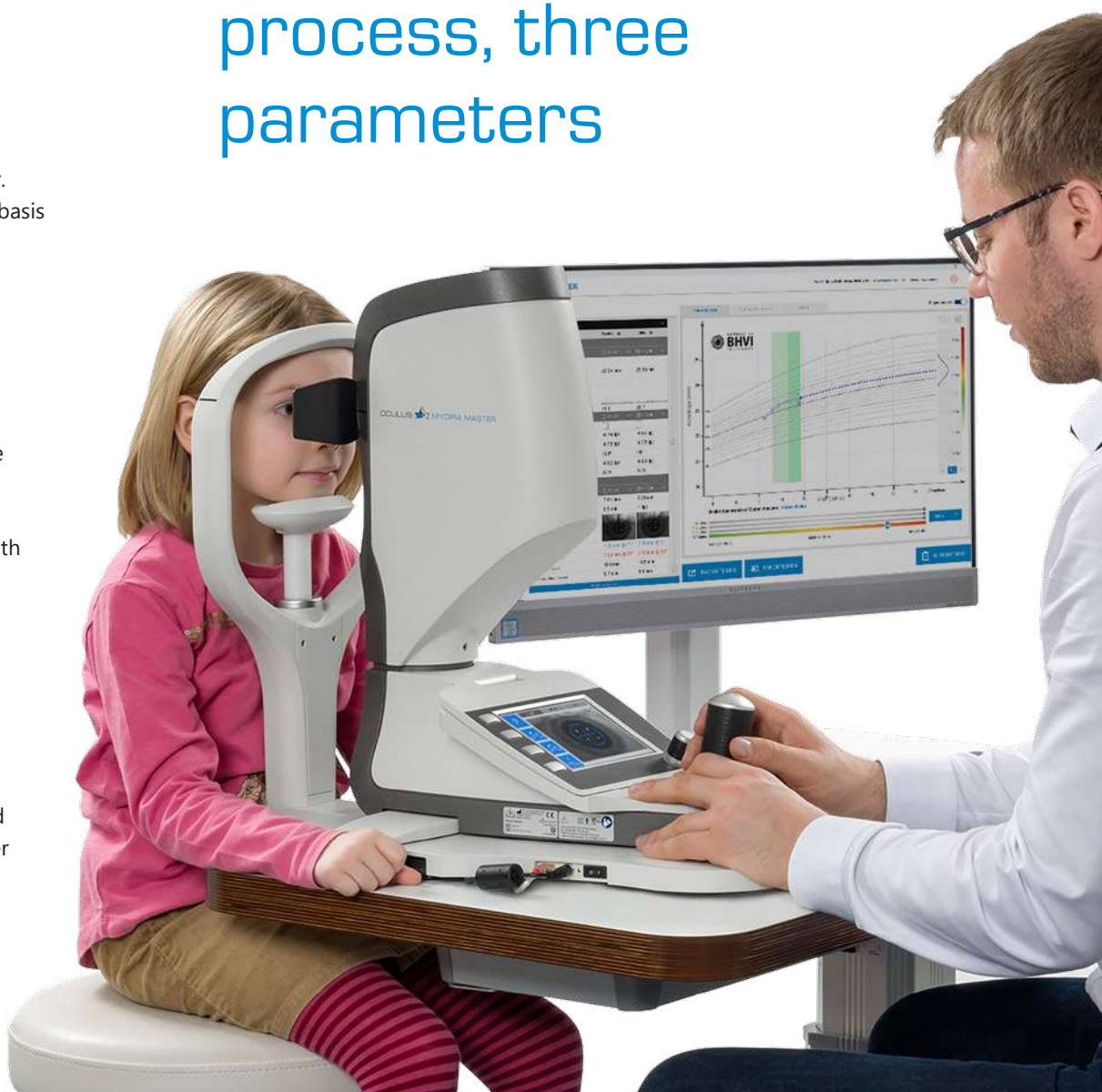
Axial length

The axial length measurement is independent of the accommodation state of the eye. The measurement is highly accurate. An increase in axial length is a reliable indication of myopia progression. Axial length measurement represents the gold standard for recognizing eye length growth at an early stage.

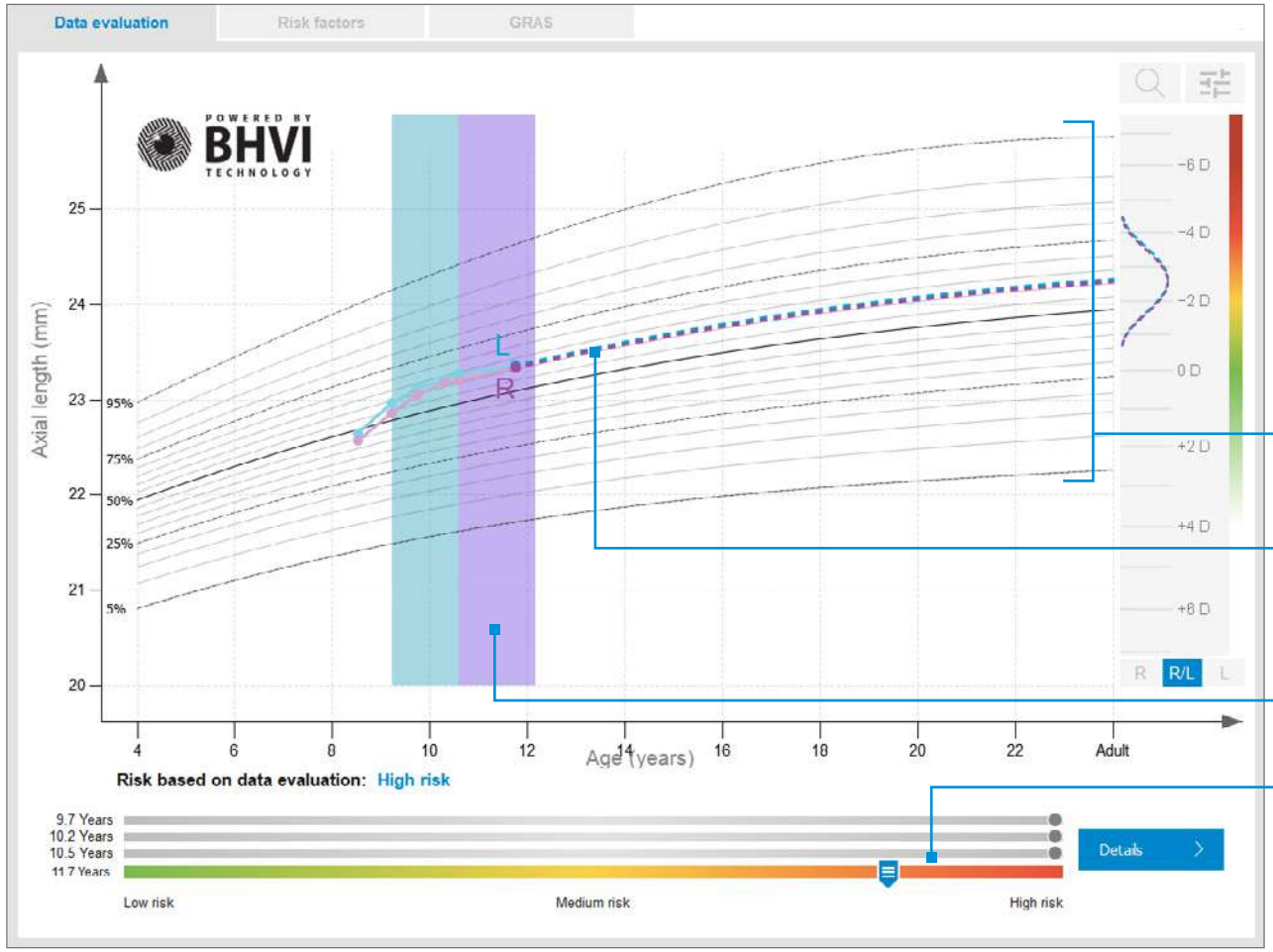


Keratometry

The central corneal radii represent the refraction of the cornea. Combining this with the axial length and the total refraction of the eye enables an even better understanding of the human visual system.



2 DATA ANALYSIS



Binocular axial length measurements, plotted in normative growth curves, generated from BHVI

Results interpreted on the basis of BHVI growth curves

The patient data is compared with age and gender-dependent growth curves collected from more than 20,000 eyes. Exclusive algorithms from the Brien Holden Vision Institute (BHVI) now make interpreting the data easier than ever.

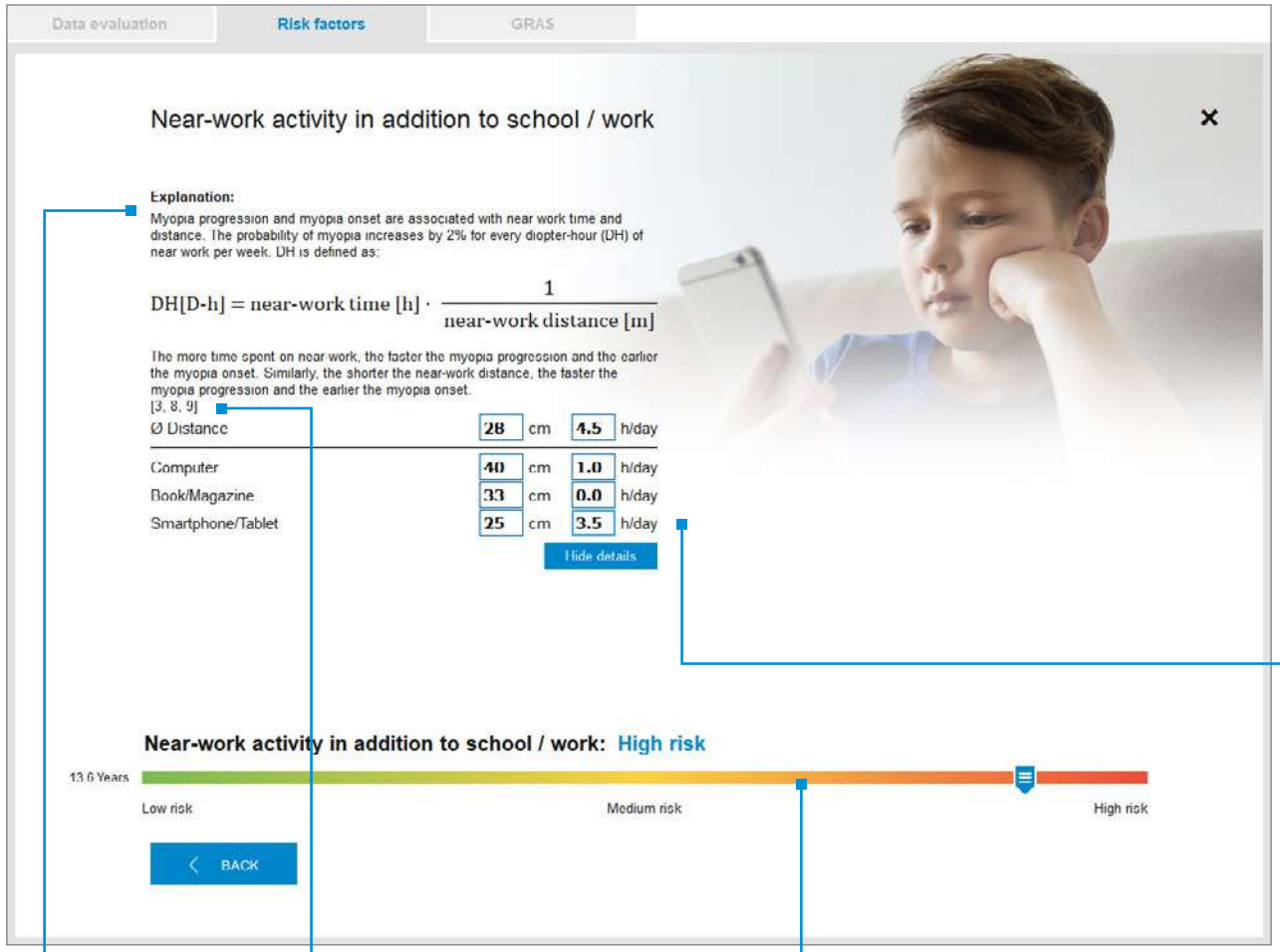
Normative growth curves by ethnicity and gender

Measurement data predicting axial length and refraction in adulthood of the right (**R**) and left (**L**) eye.

Colour coding of the treatment

Individual risk evaluation based on data analysis

3 RISK IDENTIFICATION



Detailed explanation of risk factor

Literature sources pop up on hovering

Colour scale for fast risk identification

Environmental conditions and patient education

The Myopia Master® software provides a default questionnaire addressing the most important risk factors. Further risk factors can be added and customized using the Question Kit.

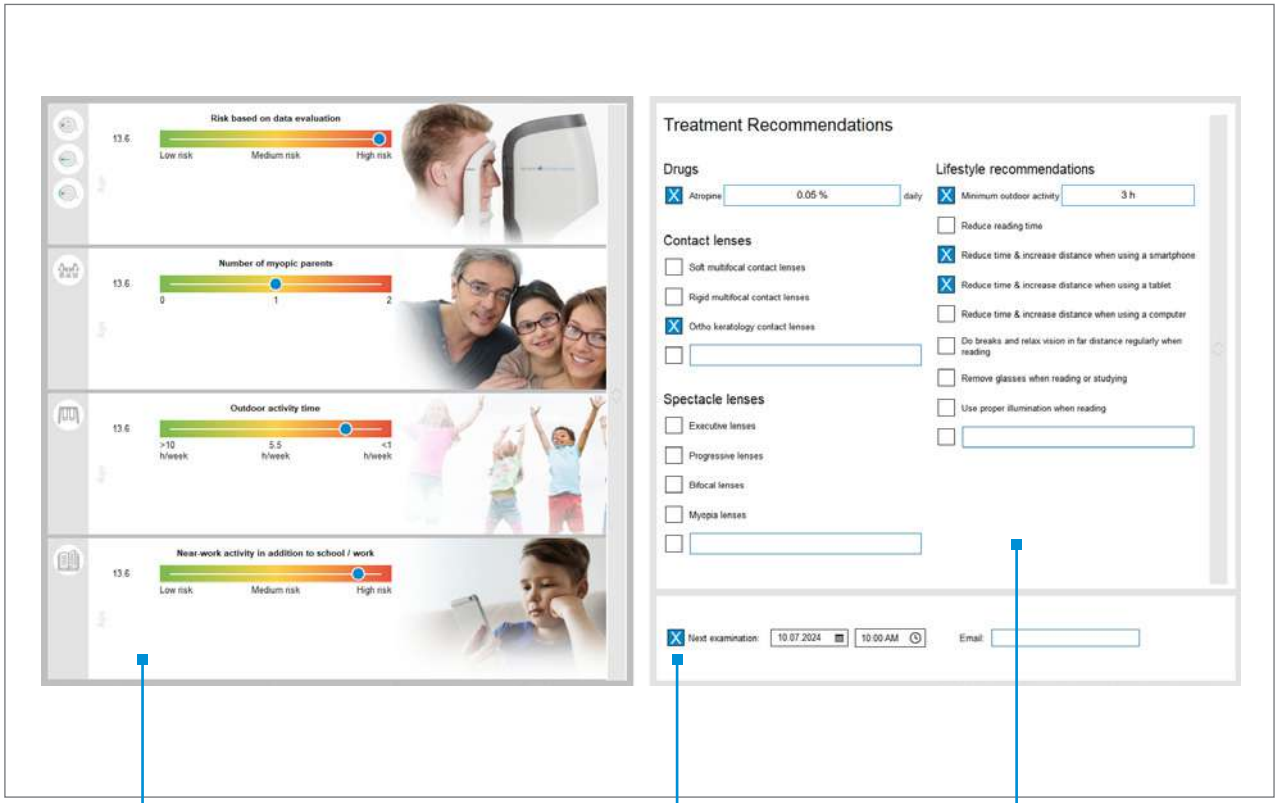
ⓘ All information is based on peer-reviewed papers.

The Myopia Master® software assists the eye specialist in educating children and their parents.

Prolonged near work predisposes to myopia.

Myopic parents | Near work | Outdoor activity

4 MYOPIA REPORT



Overview of the results analysis

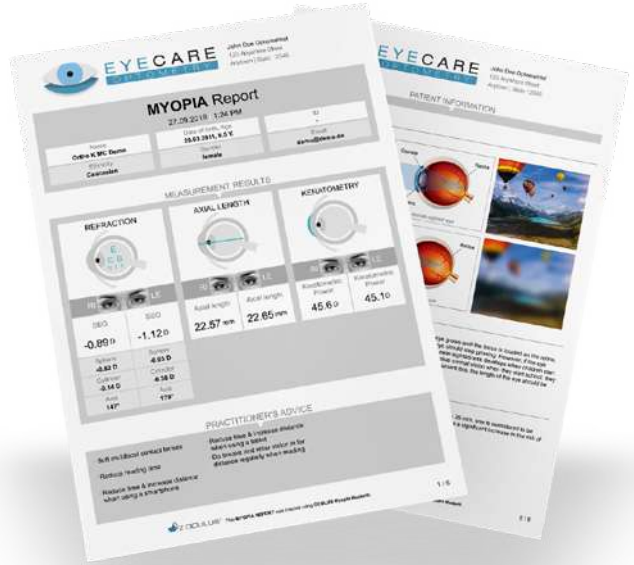
The digital Myopia Report can be sent by email or printed out together with the next examination appointment.

Individual treatment recommendations on medication, contact lenses, spectacle lenses or lifestyle changes.

Evaluation-based treatment recommendations

Based on an evaluation of the questionnaire the eye specialist can select the appropriate treatment with a simple click or enter a personalized treatment. The Myopia Report for parents and children can then be sent to the patient by email or printed out together with the next examination appointment.

All of the results are clearly listed in the Myopia Report, which helps readers to understand their individual outcome.



5 GROWTH ANALYSIS

Keeping an eye on eye growth

Regular eye growth checks are an essential aspect of successful myopia management. This illustration clearly shows the changes in eye growth as well as treatment successes.

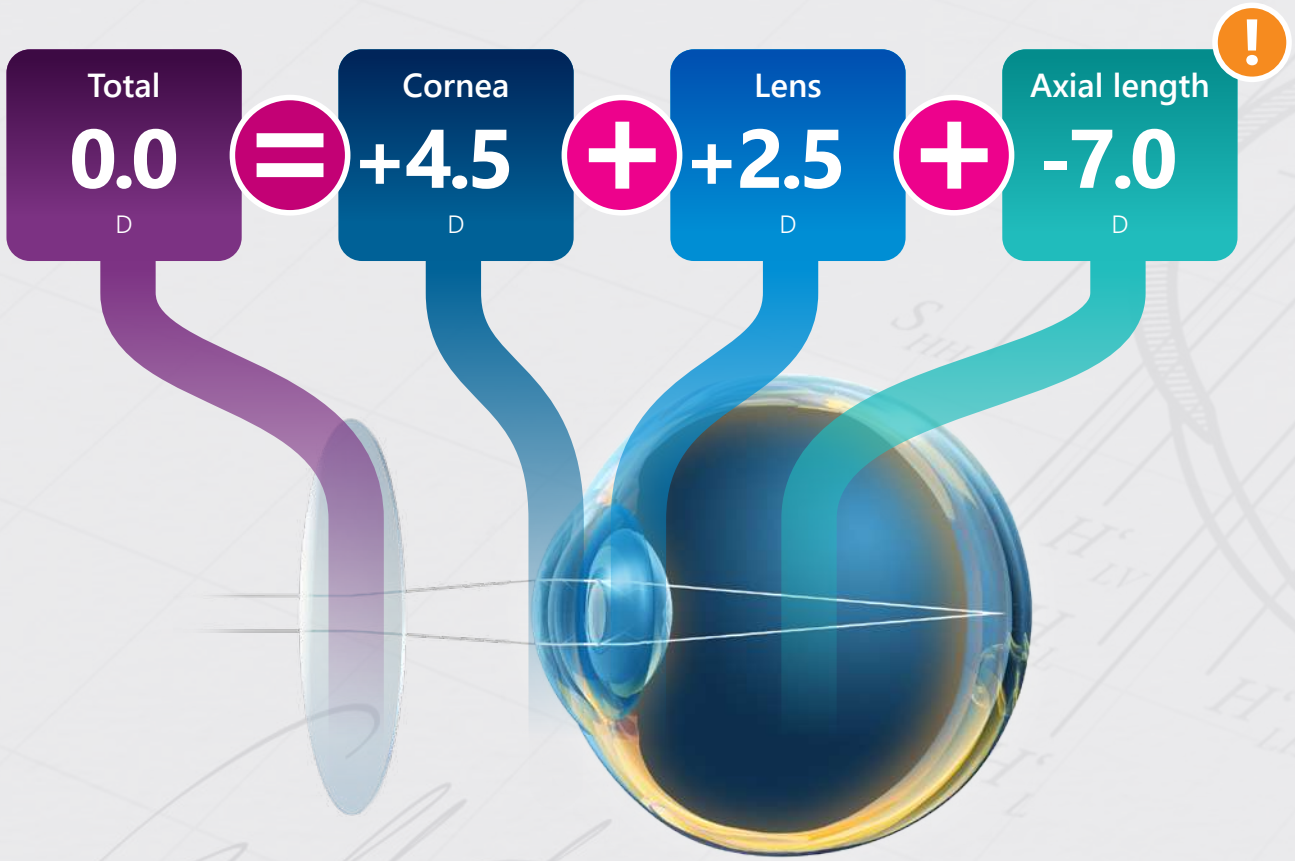
The annual growth rate is determined from the measurements within the displayed interval and shown in the upper graph.

Treatments with Ortho-K and Ortho-K Myopia have demonstrated good and very good treatment results.

Identify early, prevent later effects

Myopia is a major risk factor for various eye diseases such as retinal detachment, macular diseases and glaucoma. This makes it essential to not only to treat the symptoms of myopia but also to slow down the progression of the disease. The Myopia Master® software offers you innovative tools to provide your patients with the very best care.

GRAS MODULE

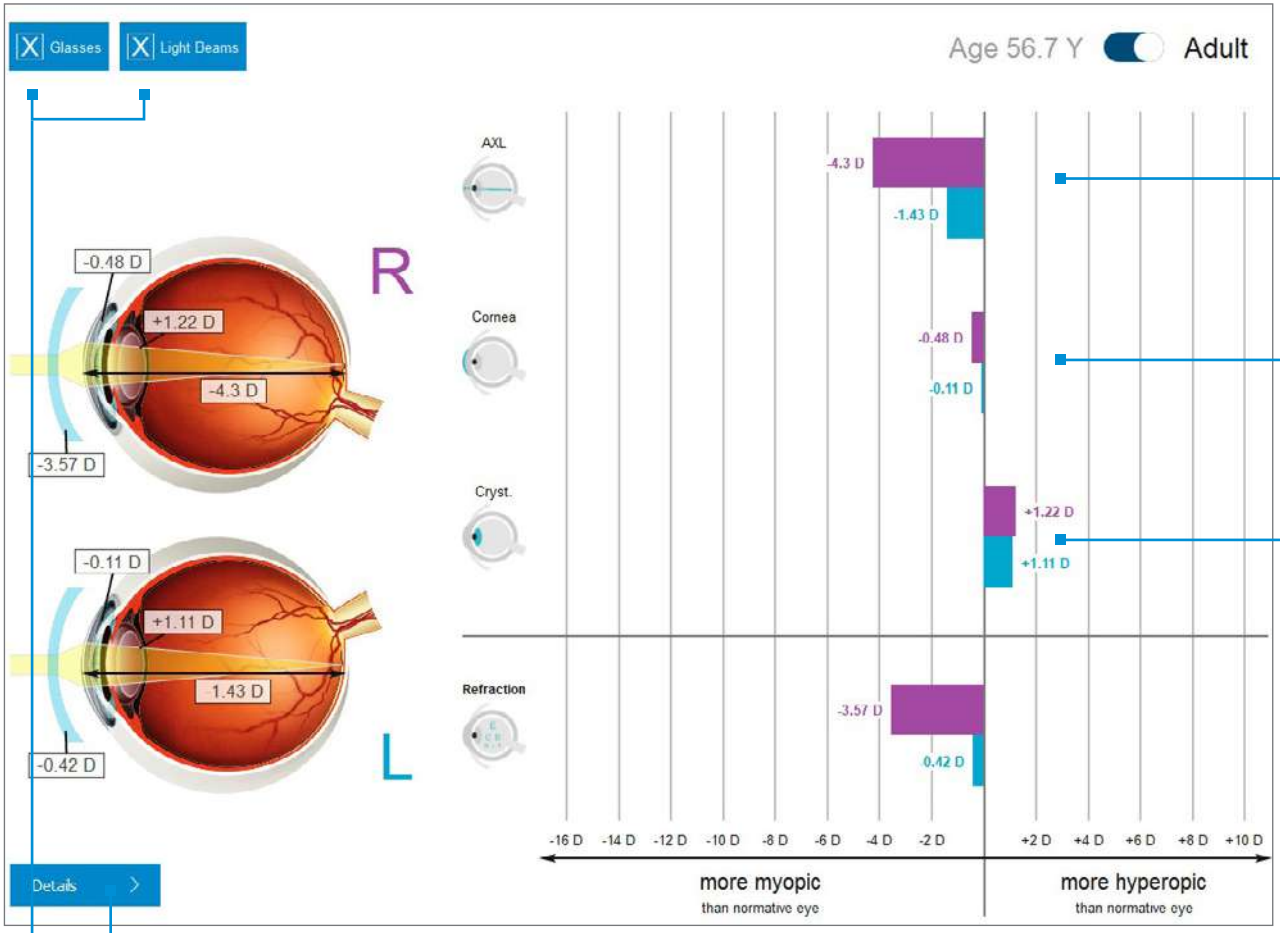


Anything but 0.0.
A new understanding of vision

Never has the interpretation of measurement results been as easy and reliable as with the new Myopia Master®. All individually measured refractive components of the eye are automatically matched with the Gullstrand standard eye model. This way you can always take your bearings by the gold standard. Not only does this save you time, it also provides an ideal basis for explaining the results to your patients.

Best of all, OCULUS has adapted the Gullstrand eye for children, providing even better care for this important target group.

Comparison with the Gullstrand eye



Comparison of individual optical components with the age-adjusted Gullstrand eye

Axial length

Corneal power

Crystalline lens power

Button for useful additional information about patient education

Simulation of the optical beam path with and without glasses

The **G**ullstrand **R**efractive **A**nalysis **S**ystem or **GRAS** for short, is a refraction-analysis module that is optionally available with the Myopia Master®.

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
Keratometer	
Measuring range of radius of curvature	6 - 10 mm
Technical specifications	
Dimensions (W x D x H)	266 x 538 x 493 – 523 mm (10.5 x 21.2 x 19.4 - 20.6 in)
Weight	approx. 12 kg (26.5 lbs)
Voltage	80 - 264 V AC
Frequency	47 - 63 Hz
Interface	USB
Recommended computer specifications	Intel® Core™ i5, 500 GB HDD, 8 GB RAM, Windows® 10, Intel® HD Graphics

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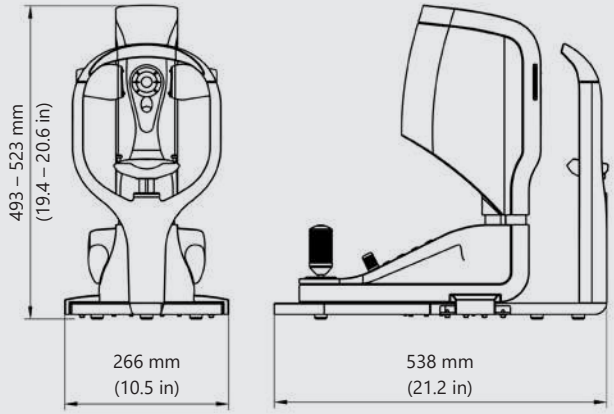

Further information and news at:
www.myopia-master.com

WWW.OCULUS.DE

TÜV SÜD

The OCULUS QM system is certified in accordance with ISO 13485 (MDSAP) and (EU) 2017/745 (MDR)

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