The smart way to manage myopia in children

HOYA
FOR THE VISIONARIES

This brochure is intended for Eye Care Professionals only.

Every diopter counts in childhood myopia management[1]

The prevalence of myopia and high myopia is on the rise and will continue to increase in the coming decades[2]

Myopia is rapidly becoming a global health concern, with rates soaring among children worldwide. This surge is driven by lifestyle changes, such as increased near-work activities and reduced time outdoors.[2]

Myopic children are at an increased risk of developing complications later in life, such as:[3]

- Myopic macular degeneration
- Retinal detachment
- Cataract
- Glaucoma

This risk is even higher for children with high myopia (prescriptions of -6.00D or more).[4-6] Therefore, early diagnosis and management of childhood myopia, offering the most effective myopia solutions available, are critical to slowing its progression and reducing the risk of future complications.[1]

At HOYA Vision Care, we believe every child deserves the freedom to grow, explore, and see the world clearly. Our commitment goes beyond vision correction – it's about opening their world so they can thrive in every aspect of life.

It is estimated that by 2050:[2]

5 billion people, half of the global population, could have myopia

High myopia could affect **1 billion people, or 10% of the global population**

Introducing MiYOSMART spectacle lenses

MiYOSMART spectacle lenses are specifically designed to slow down myopia progression in a safe, easy, non-invasive and effective way.[6-9]

- **Safe**
- **Easy**
- **Effective**
- **Non-Invasive**

Myopia control effect of MiYOSMART spectacle lenses is sustained and clinically proven by 8-years clinical study results.[6]

An award-winning myopia control solution[10,11]

Gold Prize, Grand Award & Special Gold Award Winner, International Exhibition of Inventions of Geneva 2018

Silmo d'Or Award in Vision category, Silmo Paris Optical Fair 2020

Listed in the *IMI Facts and Findings* Infographic, a reference of key myopia management evidence-based information[12]

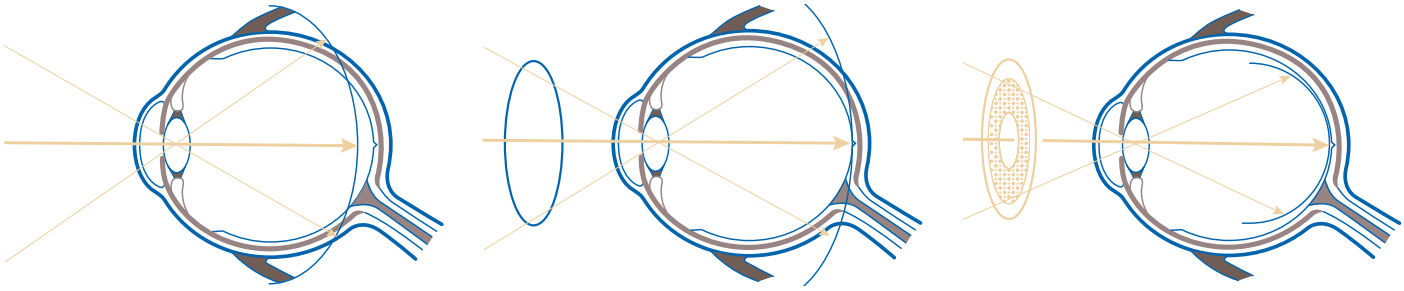
Managing myopia progression with innovative D.I.M.S. Technology[13]

Together with The Hong Kong Polytechnic University, HOYA Vision Care developed the first spectacle lenses with Defocus Incorporated Multiple Segments (D.I.M.S.) Technology, that slows down myopia progression by 60% on average based on a 2-year clinical study.[6] This technology is based on the well-established peripheral defocus theory.

In the uncorrected myopic eye, rays are focused in front of the central part of the retina and behind in the mid-peripheral and peripheral retina. By wearing single-vision spectacle lenses, rays are focused on the central part of the retina, creating peripheral hyperopic defocus theory in the mid-peripheral and peripheral retina.

In comparison, MiYOSMART spectacle lens with D.I.M.S. Technology creates a myopic defocus, focusing rays in front of the retina, while correcting the myopic refractive error on its entire surface.

Managing Myopia with Myopic Defocus



Uncorrected Myopia | Traditional Single-Vision Correction | Ideal Correction

"D.I.M.S. Technology is my first choice to manage myopia – it's safe, effective and easy to use."

Prof. Hakan Kaymak

Professor of Universität des Saarlandes and leading researcher at the Internationale Innovative Ophthalmochirurgie in Düsseldorf, Germany

How D.I.M.S. Technology works in MiYOSMART

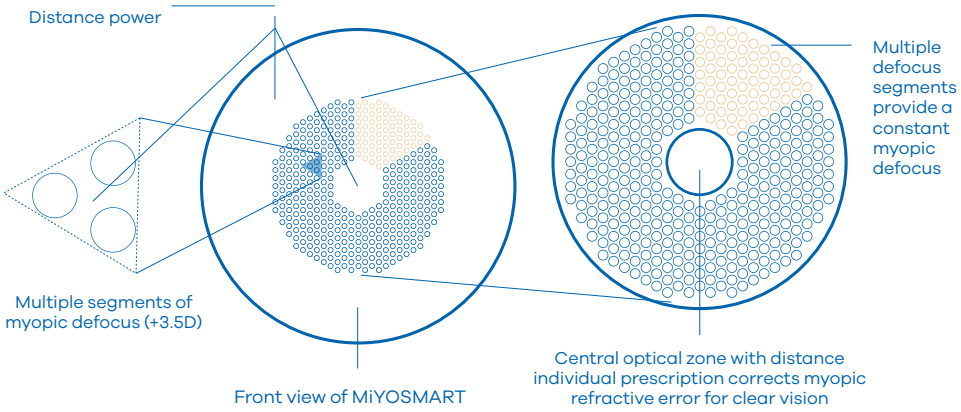
To effectively slow down myopia progression, myopic defocus must be continuous, even during eye movements. This requires a significant quantity of defocus segments to be evenly distributed on the lens surface.

To address this, HOYA Vision Care developed the D.I.M.S. Technology which uses a honeycomb-shaped defocus segment zone to slow down myopia progression.

The 9.4 mm central optical zone of the lens is a segment-free zone, designed to make it possible to measure lens power and correct the myopic refractive error, to meet clear vision needs.

Furthermore, the cosmetic appearance of the MiYOSMART spectacle lenses is the same as regular single-vision spectacle lenses.

The result: smooth-surfaced spectacle lenses that both correct and slow down myopia progression.[6,7]



MiYOSMART caters to a wide range of prescription needs, to improve vision outcomes in as many myopic children as possible

MiYOSMART spectacle lenses are available in prescriptions up to -13.00D, expanding access for patients with high myopia. With increased lens diameters designed to better fit children with higher prescriptions and optimized edge thickness for a more refined, aesthetic appearance, MiYOSMART now better meets the diverse needs of the myopic population than ever before!

MiYOSMART spectacle lens (clear lens)	
Lens Diameter (mm)	Combined prescriptions (Sph+Cyl)
75	up to -8.00
70	up to -10.00
65	up to -11.50
60	up to -13.00

MiYOSMART Chameleon and Sunbird lenses	
Lens Diameter (mm)	Combined prescriptions (Sph+Cyl)
75	up to -6.00
70	up to -7.50
65	up to -8.50
60	up to -10.00

Availability Chart and Product Information

Index	1.59
Power	SPH: 0.00D to -13.00D
	CYL: up to cyl 4.00D
	Highest minus power: -13.00 with +4.00 CYL
Central Clear Zone	Around 9.4 mm in diameter
Treatment Zone	Around 33 mm in diameter
Defocus Power	+3.5D
Prescribed Prism	3Δ Dioptre per lens
Diameter	Up to 75 mm, depending on the prescription power

A myopia control solution backed by research

Many clinical studies have been undertaken to explore the effectiveness and safety of MiYOSMART in slowing down myopia progression.

Myopia progression slowed on average by 60% over 2 years[6*]

- Axial elongation decreased on average by 60%
- Myopia progression stopped in 21.5% of those wearing MiYOSMART

*The 2-year randomized controlled trial (RCT) involved 160 children aged 8-13 years.

Sustained effect over 8 years upon discontinuation[14*]

- Average myopia progression of less than -0.50D[15*].
- High user satisfaction and acceptance – short adaptation period, comfortable for daily wear, and minimal social impact.

*Based on the results of 11 participants in the 8-year DIMS group who wore DIMS spectacle lenses for the entire 8 years

Over 90 publications are available on MiYOSMART. For more evidence see here:
https://www.hoyavision.com/vision-products/miyosmart/evidences/

"MiYOSMART is an evolutionary spectacle lens, which demonstrates impressive efficacy in slowing down myopia progression. I am confident to recommend it as one of the first-line interventions to patients who need and seek myopia control."

Prof. Weizhong Lan

Professor of Ophthalmology at Aier Eye Hospital, China

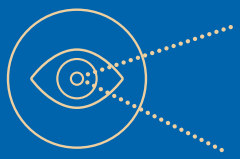
With MiYOSMART features, we can give children better vision and better protection

MiYOSMART Eye Shield

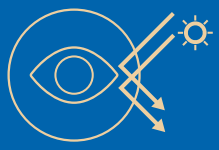
The impact-resistant material with UV protection.

Children are active and always on the go. That's why we use polycarbonate 1.59 – a highly impact-resistant,[16] yet thin and light material – to offer young eyes the protection they need, at all times.

Thin and light



Optical clarity



UV protection

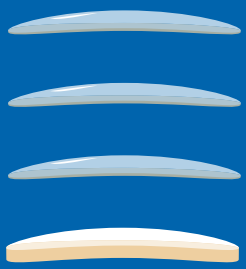
Strong and safe

MiYOSMART STX Coating

The advanced hydrophobic technology that keeps lenses cleaner for longer.

MiYOSMART spectacle lenses are built tough for everyday adventures. They include an anti-reflective coating making the lenses almost invisible and durable protection against life's little scratches. On top of that, a new advanced Smooth Touch Xtreme technology is now available, providing long-lasting hydrophobic performance which keeps the lenses cleaner for longer, resisting to daily wiping for up to 2.7 years of typical use.[17]

Full coating performance



STX top coating (NEW)
Advanced hydrophobic layer that enhances surface performance

Anti-reflective coating
Reduces glare and reflections on the lens, making them almost invisible

Hard coating
Strengthens the surface of a lens and reduces the chances of scratches

Substrate

Easy to clean
Repels water 5 times better than the previous generation[17]

Long-lasting performance
Stays easy to clean, even after 8,000 wipes[17]

Smudge-free
Resists fingerprints, dirt, and grease[17]

Scratch-resistant
Withstands everyday scratches[17]

MiYOSMART solutions

In addition to our MiYOSMART clear spectacle lenses, we also offer photochromic and polarized solutions, which provide protection from intense sunlight without compromising on the children's eyesight and staying outdoors.[6,18-20]

Recommendations for your new MiYOSMART wearers

Adaptation Recommendations

MiYOSMART spectacle lenses with D.I.M.S. Technology are well-tolerated and accepted by children.[21]

However, we still recommend you to follow-up with your patients after 1-2 weeks to ensure the child is not feeling any discomfort, and to answer any questions or concerns they may have.

During the adaptation period (1-2 weeks), it is recommended that your patient is cautious during the following activities while wearing their MiYOSMART spectacles:

Intensive sport activities
e.g. football

Physical activities or physical education lessons at school

Operating any kind of vehicle
e.g. cycling, scootering

Walking up or down high staircases or participating in height activities, e.g. climbing

Care goes beyond the lens

Spending more time outdoors

Some evidence shows that spending more time outdoors delays the onset of myopia and may reduce myopia progression.[22] It is recommended to spend at least 2 hours outdoors a day.

Give eyes a break

Reduce the child's eye strain by reminding them to take breaks from intensive screen time and near work activities. Remember the 20:20:20 rule – they should take breaks every 20 minutes to look at a distance of 20 feet for 20 seconds or more.[23]

Seek regular eye care

The child's eyesight should be checked regularly to ensure myopia progression or other vision problems are detected and treated early. Some children may downplay their vision problems.

Supporting you to support your patients

To ensure MiYOSMART benefits are maximised, we recommended following the protocol below.[24]

First visit

During the first visit, use cycloplegic refraction to diagnose myopia and assess visual functions of the child to get a clear overview of baseline status. Determine if the wearer is suitable for MiYOSMART (no systematic or other eye diseases should be present e.g. keratoconus, strabismus).

Take the child's and their parents' ocular and optical history.

Conduct the following examinations:[25,26]

- Visual acuity (monocular and binocular) at distance and near without correction and with their current spectacles
- Pupillary examination
- Cover-uncover test (with habitual correction)
- Ocular motility test
- Visual field test (optional, based on child's complaints and parents' history)
- Color vision test (optional, only if it hasn't been checked before)
- Cycloplegic auto-refraction or retinoscopy (recommended)
- Subjective refraction with visual acuity (monocular and binocular at distance) (recommended)
- Axial length measurement (recommended if available)

Aftercare visit

This should be scheduled 2 weeks following first use of MiYOSMART spectacle lenses.

During the aftercare visit, evaluate how the child is getting on with his/her MiYOSMART spectacle lenses. Ask the child or his/her parent to fill in an adaptation and performance questionnaire to understand their experience and highlight any adaptation issues.

Follow-up visits

It is recommended that the wearer has follow-up visits for the visual functions assessment and to monitor myopia progression at least every 6 months.

By acting today, we give our kids more opportunities tomorrow

—

You play a crucial role in assisting parents in choosing effective myopia control solutions for their children by providing innovative technology to reshape their future vision.

With MiYOSMART, you're not just correcting vision – you're helping unlock children's potential in the classroom, on the playground, and in life.

Let's open their world, together.

Disclaimers

MiYOSMART has not been approved for myopia control in all countries, including the U.S., and is not currently available for sale in all countries, including the U.S.

MiYOSMART spectacle lenses may not be able to address individuals' conditions due to natural deficiencies, illness, pre-existing medical conditions and/or advanced age of consumers. The information contained herein is general information and is not intended to constitute medical advice.

This brochure includes recommendations for Eye Care Professionals. The Eye Care Professional is responsible for ensuring that the recommended procedure is allowed to be conducted in the country where they practice. Suitability of each recommended procedure for individual patients should be evaluated by the Eye Care Professional based on their professional judgment.

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