

# Action Plan for the Future of Managing Myopia



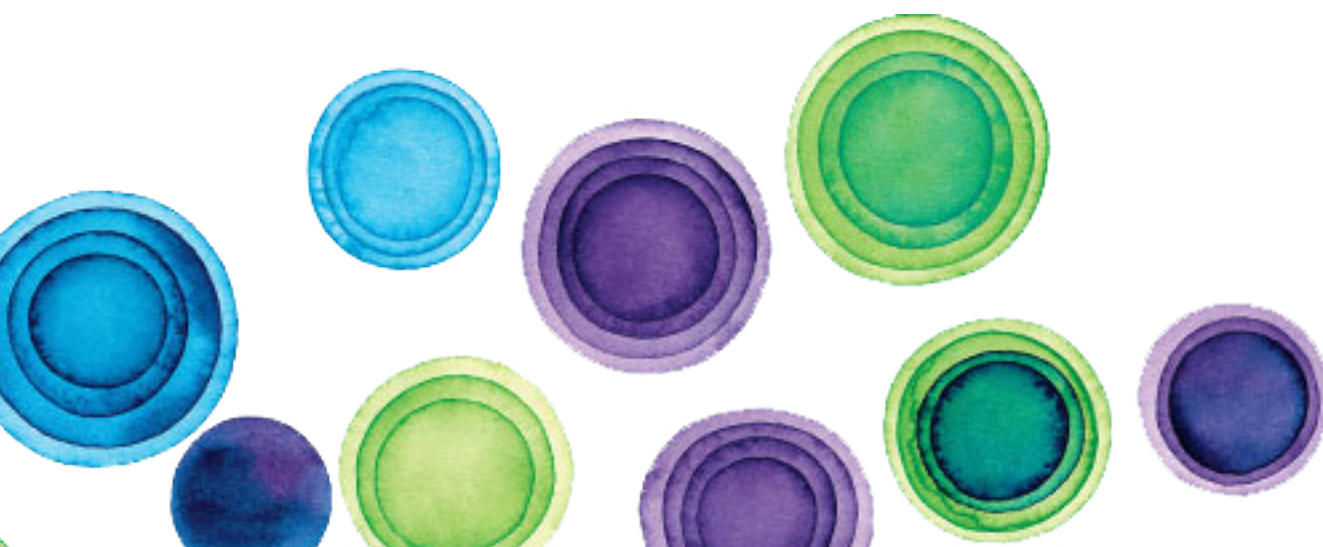
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“ There’s a wealth of research evidence coming from a number of countries that all points to the idea that early intervention has an impact on young children, which is really important to get across. The earlier we intervene, the more impact we can have on that final level of myopia. We know that myopia progresses in children, but it progresses faster in younger children. In order to have maximum impact, we want to intervene as early as possible, ideally before they actually become myopic. ”

**Professor Nicola Logan, professor of optometry & physiological optics.**



# Introduction

## Are we doing today's children a disservice by not routinely offering myopia management?

By 2050, 50% of the global population are expected to have myopia and 10% will have high myopia.<sup>1</sup> The Global Myopia Attitudes and Awareness Study of 402 eye care professional (ECPs) and 1,009 parents revealed that the increasing prevalence of myopia is a key concern to healthcare professionals, working in optics.<sup>2</sup> However, many UK ECPs do not use any myopia management strategies.<sup>3</sup> An internet-based survey from 2019 (N = 1,336) reported that 52% of ECPs are only prescribing single vision corrections to young myopic patients.<sup>4</sup>

In August 2021, CooperVision® brought together a multidisciplinary group of leading ECPs to understand how to better support ECPs in offering patients myopia management solutions and drive action. The roundtable meeting was independently chaired by the editor of Optometry Today, John White.

## Myopia roundtable eye care professional contributors



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# Why do we need to act now and implement childhood myopia management?

Over the last 50 years, research has highlighted the effects that environmental factors, such as outdoor light exposure, may have on disrupting ocular development and increasing myopia prevalence.<sup>5,6</sup> Emerging data indicate that, in some analysed urban populations, the increasing prevalence of myopia has accelerated in 2020 compared with previous years.<sup>7</sup> This may be attributed to the fact that lockdown restrictions during the COVID-19 pandemic have reduced time spent outdoors and increased time spent on electronic devices.<sup>7</sup> In particular, there was a substantial myopic shift in the sub-population of children aged 6–8 years old over the pandemic, indicating that the refractive status of younger children may be particularly sensitive to environmental changes.<sup>7</sup>

The myopia epidemic is something that ECPs know cannot be tackled without future consequence by simply correcting the refractive error. In fact, 82% of ECPs who took part in the Global Myopia Attitudes and Awareness study worry that their young patients will have significant eye health issues associated with myopia as they grow older.<sup>2</sup> Myopia increases the risk of pathologic ocular changes with the potential to cause permanent vision loss such as cataract, glaucoma, retinal detachment and myopic maculopathy.<sup>5</sup> The incidence of these conditions is greatest in individuals with high myopia ( $\geq -6.00D$ ).<sup>8</sup> Current projections suggest that, in 2050, myopia will become a leading cause of permanent blindness worldwide.<sup>1</sup>



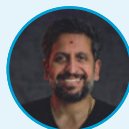
“ COVID lockdowns have definitely impacted myopia. I’ve talked to children in the clinic, and they have admitted they have had to spend days upon days continuously indoors with no outdoor exposure at all. Clearly that’s bad for myopia and the consequence will be significant. ”

**Mr John Bolger, consultant ophthalmologist.**



“ To prevent the continued rise of myopia, there needs to be greater understanding of the causes and a fundamental cultural change with respect to management across a generation. ”

**Paramdeep Bilkhu, therapeutic optometrist, visiting researcher and clinical advisor.**



“ If you are not acting now, you’re probably about 5 years behind the curve. ”

**Keyur Patel, optometrist and clinical director.**



“ The more myopes we have in the UK, the more ocular pathology patients there will be in the future, so it’s that ticking time-bomb on the NHS. ”

**Professor Nicola Logan, professor of optometry & physiological optics.**



“ Even ECPs will say things like “it’s only -1.00 dioptre, it’s not that bad.” In reality, it’s three times the risk of retinal detachment. ”

**Rebecca Donnelly, clinical lead optometrist and independent prescriber.**



# What does the clinical evidence tell us about myopia management?

Outdoor time has been shown to be effective for delaying the onset of myopia, but not from slowing the progression of myopic refractive error.<sup>9</sup> However, myopia management studies published in peer-reviewed journals over the past several years have demonstrated the effectiveness of a range of strategies.<sup>9-16</sup> In a review of myopia control published in 2020, US-based researchers Prof. Mark Bullimore and Dr Kathryn Richdale concluded that, 'ECPs must stay alert to ongoing myopia research that will undoubtedly result in an evolution of the standard of care for the myopic and pre-myopic child'.<sup>17</sup>



“ There is enough scientific evidence to support myopia management—children have a right to know that their risk could be mitigated. ”

**Mr John Bolger, consultant ophthalmologist.**



# What does professional guidance advise on myopia management?

Guidance from some professional bodies does not yet reflect the newest data, resulting in conflicting advice.<sup>18-20</sup> Additionally, some ECPs are concerned that there is not enough reimbursement from General Ophthalmic Services for children requiring myopia management. However, as healthcare professionals and first responders involved in the diagnosis and correction of myopia, ECPs should be advising all patients and caregivers about myopia, as well as the future risks to eye health and to make them aware of all of their options.<sup>18</sup>

**The World Council of Optometry announced a resolution in April 2021 that myopia management should be a standard of care, comprising 3 main components of mitigation, measurement and management. That standard of care shifts from just correcting vision to managing the condition, educating parents on myopia and the lifestyle that may impact it, as well as the risks to long term ocular health and the available strategies which may slow its progression.<sup>18</sup>**



*“ We never say that we don’t have time to discuss glaucoma with our patients. If we don’t allocate time to discuss myopia management with families, we aren’t giving our patients what they need. ”*

**Luke Allen, senior optometrist.**



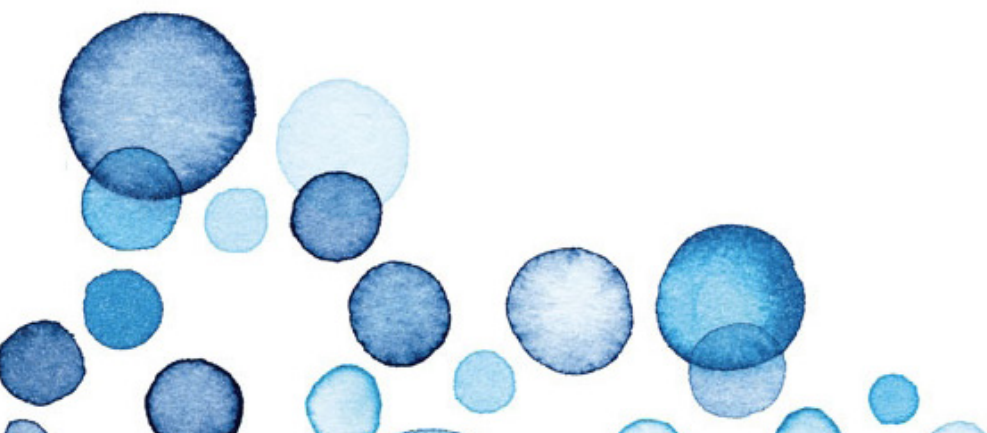
*“ For ECPs not doing myopia management at the moment, the World Council of Optometry has mandated that myopia management should become the new standard of care and if you are not doing it you need to think about the impact on parents if they find out another ECP is offering their child the option of myopia management. As clinicians, rather than technicians, ECPs need to consider the needs of their patients above all else and individualise patient care in order to do so. ”*

**Indie Grewal, optometrist and immediate past president of the BCLA.**



*“ Even following the guidance from the College of Optometrists, you need to document that you have discussed myopia management interventions, including the evidence, benefits and risks. ”*

**Rebecca Donnelly, clinical lead optometrist and independent prescriber.**



# How to get started with myopia management



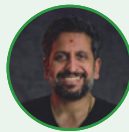
## 1. Use your existing skill set and build your confidence

A misconception around myopia management is that it requires specialist training or equipment to practice. Myopia management begins with a simple conversation and even progressing to fit a product such as the MiSight® 1-day contact lens that requires no additional skills beyond those required to fit a soft, daily disposable single vision contact lens.<sup>\*,10</sup> The increasing evidence base that supports the adoption of myopia management interventions should reassure ECPs that while investment in costly biometers may be helpful to track patients' progress, they are not an essential piece of consulting room kit for successful myopia management.



“ Getting started with myopia management is really easy. It's about you having a conversation with a parent and child about the potential of a child becoming myopic or if they are myopic what we can do to help maintain the good eye health they have now and into adulthood and later on in life. ”

**Indie Grewal, optometrist and immediate past president of the BCLA.**



“ I think it's easy to build confidence among all ECPs as really you have the skill set already. We are in the best position to provide that care and you don't have to invest too much time in implementation to do it. ”

**Keyur Patel, optometrist and clinical director.**



## 2. Raise the subject early and involve the whole family

Studies show that a younger age at initial diagnosis and greater severity of initial myopic refraction is associated with a faster rate of myopia progression.<sup>21,22</sup> The highest rate of childhood myopia onset is between the ages of 7 and 12 years old. Therefore, it may be most efficacious to begin myopia management discussions from the age of 6 or 7 to avoid missing this window and maximise the effect of the intervention.<sup>21</sup>

Depending on the family's knowledge of myopia management, it can take some time for them to buy into the need for myopia management and to build trust with an ECP. The need for good ocular health is perceived to be less ingrained in the public than the need for good dental health and refractive surgery is thought to be a quick fix to myopia. Furthermore, ECPs are regarded by some members of the public to be retailers rather than healthcare professionals. All of these factors mean that the earlier the subject of myopia management is raised and reinforced, the more likely families will begin to understand its value.



“ We need to be considering pre-myopia management and discussing childhood myopia risk with myopic parents before it develops in the child. This can be done as early as during pregnancy. ”

**Indie Grewal, optometrist and immediate past president of the BCLA.**



“ My approach is to build a rapport with the parent and child. I want to show the parents my commitment to their child's long-term wellbeing and give them confidence that I will provide continuous care to support them throughout their myopia journey. ”

**Rebecca Donnelly, clinical lead optometrist and independent prescriber.**

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### 3. Keep the message simple, avoid scaremongering and adopt a personalised approach

The educational needs and level of understanding of different families can vary greatly and therefore, the communication style used in myopia education may need to be tailored to each family. Discussions can begin simply by explaining to parents how lifestyle can influence the development of myopia and the value of regular eye examinations. An effective approach may be to promote good ocular health rather than discussing the worrying pathological complications of myopia, especially in front of the child.



### 4. Reframe myopia as a condition that needs management as well as correction

A way to position the value of myopia management contact lenses and spectacles can be to explain that they have a two-pronged benefit; as well as unburdening the child from the restrictions of myopia by correcting it, they also aim to manage the myopia to slow down its progression. Children with any level of myopia increase their risk of ocular pathology compared with emmetropes.<sup>23</sup> Myopia management interventions aim to help prevent such pathology developing and therefore do much more than just correcting the error.



“ I think it’s really important that you communicate in a way that is understandable for that individual patient. Make sure you have a different approach based on the family’s educational background or needs, so you can tailor that individual conversation for that patient. And when talking about risks and benefits, make it understandable. So, using jargon isn’t often helpful, using real-world analogies is helpful. ”

**Paramdeep Bilkhu, therapeutic optometrist, visiting researcher and clinical advisor.**



“ It really depends on the audience. Some patients are worried about numbers and others just want a general explanation of whether an intervention increases or decreases risk. ”

**Luke Allen, senior optometrist.**



“ Most myopic children will go on to ask for contact lenses in their preteen or teen years. With MiSight® 1-day lenses, we simply ask the parents to invest in a contact lens earlier to help slow down their child’s myopia progression. ”

**Indie Grewal, optometrist and immediate past president of the BCLA.**



“ We feel myopia should be looked at as a condition that can potentially lead to sight loss, so rather than doing it just as a form of eye correction, we should be looking at it as a condition that can be managed from the outset, so we prevent sight loss happening in the future. Approaching it from a therapeutic perspective rather than just a refractive management perspective means patients will better understand what myopia means but also how to tackle it. ”

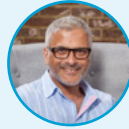
**Paramdeep Bilkhu, therapeutic optometrist, visiting researcher and clinical advisor.**





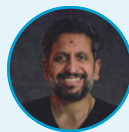
### 5. Manage parental concerns by sharing the evidence and providing them with additional information resources

The evidence base supporting myopia management<sup>24</sup> can be used to help alleviate parental concerns. Tailored, confident education on the value of myopia management and the need for early intervention, underpinned by ECPs' knowledge of the data can be an effective tool to instil confidence in parents. Leaflets and websites can be valuable resources for parents to explore in their own time and further reinforce messaging. Training front-of-house staff working in optometry practices to begin discussing myopia management can increase parents' exposure to information on myopia management. ECPs can use evidence-based practice to guide their clinical management decisions. Evidence-based practice is defined as the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients.<sup>25</sup>



*“Clinical evidence provides us with a backstop so that when we talk to parents about the interventions we are going to employ to help slow down myopia, we have evidence behind that and can be confident in recommending that strategy.”*

**Indie Grewal, optometrist and immediate past president of the BCLA.**



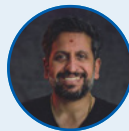
*“Addressing parental concern is important. Be honest. Feel that you can share the data. Point them in the direction of educational sites designed for parents and children as you need to consult the child—the child has to understand what’s going on.”*

**Keyur Patel, optometrist and clinical director.**



### 6. Adopt myopia management as part of your plan to grow your business

Offering myopia management can raise the profile of an optometry practice and increase its appeal to families. It demonstrates a long-term investment in a child's ocular health and can help cement a good relationship with the child and their family over many years.



*“Myopia management is ultimately good for the patient but from a business point of view, it is a fantastic opportunity to raise the profile of your business. It allows long-term growth and relationship building with patients from a young age but also their parents and it is something ECPs are already geared up to offer. You don’t need major investment and as ECPs we are the best people to provide this care.”*

**Keyur Patel, optometrist and clinical director.**



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### 7. Educate and activate the wider community

The influence of environmental factors on myopia development means that educating the wider community on these and how to mitigate the risk could help curb the rising prevalence of childhood myopia.



“ I think schools and the government have a huge role to play in helping slow down the pandemic that is myopia by getting children outdoors more, increasing time away from digital devices and balancing life with learning and outdoor time. ”

**Indie Grewal, optometrist and immediate past president of the BCLA.**



“ It is our job to teach the world and to educate the educators on the secondary impact of myopia. ”

**Rebecca Donnelly, clinical lead optometrist and independent prescriber.**



“ Schools and government have a very important role to play. A child spends a lot of time in school, a lot of their close work and daytime is in school, so instead of being outside in natural daylight, they are inside in artificial light, and we know this is contributing to myopia. ”

**Mr John Bolger, consultant ophthalmologist.**



# Action plan summary



**Use your existing skill set and build confidence**



**Raise the subject early and involve the whole family**



**Keep the message simple, avoid scaremongering and adopt a personalised approach**



**Reframe myopia as a condition that needs management as well as correction**



**Manage parental concerns by sharing the evidence**



**Adopt myopia management as part of your plan to grow your business**



**Educate and activate the wider community**

\*Initial contact lens back vertex power selection and observation of fit follows same fitting protocol for single vision contact lenses; fit success rate same with MiSight® 1 day and Proclear® 1 day.

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