

# Your child and short-sightedness

Act early to help slow the worsening of your child's short-sightedness<sup>1</sup>







Myopia (short-sightedness) is increasing.<sup>2</sup> It causes **blurry vision**, can affect quality of life and **increases the risk to future eye health**.<sup>3,4,5</sup>

Myopia can **rapidly worsen**, particularly in younger children, so it's important to start a myopia management treatment as soon as possible.<sup>6</sup>

MiSight® 1 day contact lenses are dual-purpose: they provide **clear vision** and help to slow the **worsening** of myopia.<sup>7</sup>



#### What is short-sightedness?

**Short-sightedness**, or **myopia**, typically occurs when the eyeball grows too quickly in childhood. Myopia can rapidly worsen, particularly in younger children, because their eyes are growing at a faster rate.<sup>6,8</sup> The prevalence and severity of myopia is growing, it's expected to affect more than 50% of the world's population by 2050.<sup>2</sup>

Myopia causes blurry vision and usually **requires glasses or contact lenses** to see details, for instance on a whiteboard or the TV.<sup>9</sup> As myopia increases so does the reliance on vision correction for everyday activities and there is also an increased risk to future eye health.<sup>3,4,5</sup>

Normal vision



Short-sighted vision

(objects further away are more blurry than objects nearby)

Try our online vision simulator



The image presented is an artistic interpretation of short-sightedness as experienced without spectacles or contact lenses.

https://coopervision.co.uk/myopia-simulator

## Why is this happening?

There is a link to modern lifestyles, near-vision activities and increased screen time – but genetics also plays a part.<sup>10-16</sup>



More screen time



Less outside time



Educational demands



Urbanisation



Genetics

## How myopia affects your child today

As myopia gets worse, it can impact quality of life. This is because children become increasingly dependent on vision correction to fully participate in school, sports, and other daily activities.<sup>3,4</sup>

How myopia could affect your child's future

Myopia can lead to more serious eye health problems later in life. Including:

myopic maculopathy 7

retinal detachment 18

glaucoma 19

Myopia often worsens faster in younger children, so it is important to start treatment as soon as possible 6

cataracts<sup>20</sup>

You can act now to help slow down the worsening of your child's myopia<sup>1</sup>.

\*Children ages 8 to 15 when starting MiSight 1 day treatment experienced a slowing of myopia progression.



## Eyewatering facts

On average, you blink 15-20 times a minute and over

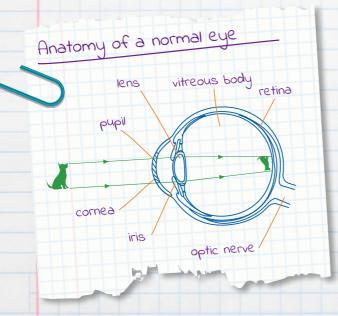
5 million times in a year.3

Scientists believe that on average a fully grown eye will be 0.5 mm longer for a boy than for a girl.1

Your eyes can distinguish approximately 10 million different colours.<sup>2</sup>

## What exactly is shortsightedness (aka myopia)?

Short-sightedness, also known as 'myopia', can make seeing things at a distance blurry. If your eyes are myopic, you may find it tricky reading the whiteboard or watching your favourite TV show from far away.<sup>4</sup>



Myopia is typically caused by your eye growing slightly too long.<sup>6</sup> You might also find that your chances of being short-sighted are more likely if members of your family also have myopia.<sup>5</sup>



### Spot the signs of short-sightedness<sup>6</sup>

- ✓ Headaches
- ✓ Tired eyes
- ✓ Regularly rubbing your eyes
- ✓ Needing to sit close to screens, such as the TV
- ✓ Struggling to see the whiteboard from a distance





## Tips and tricks to help your eyes:

#### 1. Go outside!

From going to the park to riding your bike, looking at objects far away in the distance gives your eyes a chance to relax.6



#### 2. Screen-free time!

All that time spent in front of bright screens can strain your eyes. It's time to step away from the tablet... and the computer, and the TV, oh and your smartphone too. Sorry. Your eyes will thank you!

## 4. Special myopia management contact lenses and glasses

Did you know you can get special contact lenses and glasses that not only help you to see clearly, but can **slow down how quickly your sight may change.**<sup>10</sup> Your optometrist can chat to you about this and explain how they work.

## 3. Keep objects at a distance

We know it's tempting to curl up close to your screen but there is some evidence that this could increase the chance of short-sightedness. We suggest keeping devices and books at least the same distance as your knuckle to your elbow. Go on, give it a try!

#### 5. Soak up the sleep

Having a good quality night's **sleep can help with myopia**,<sup>11</sup> so make sure you're getting enough shut-eye.



## Do you need regular eye exams?

Just like you grow with every birthday, your eyes continue to change as you get older. Regular eye exams help to spot any changes that could make it hard for you to see, and can help keep your eyes healthy for the future.





# What about my future?

Myopia can be easily managed with a few simple steps so you can still do lots of exciting things when you grow up, whether that's becoming a professional athlete, studying the stars or taking care of others.



mmmmmm

If you notice any **changes to your vision** as you get older, make sure to tell an adult. The earlier you spot changes to your eyes, the sooner your optometrist can help you to treat and manage it.



## Want to find out more? Visit: www.misight.co.uk

- 1. https://onlinelibrary.wiley.com/doi/pdf/10.1111/aos.12107
- 2. https://www.aao.org/eye-health/tips-prevention/how-humans-see-in-color
- 3. Karson CN. Physiology of normal and abnormal blinking. Adv Neurol 1988;49:25-37.
- 4. Zadnik K et al. Prediction of Juvenile-Onset Myopia. JAMA Ophthalmol. 2015 Jun; 133(6): 683-689
- 5. 2018, NHS guidelines: https://www.nhs.uk/conditions/short-sightedness/
- Deman JW, Snabel MC, Tedja MS, et al. Association of axial length with risk of uncorrectable visual impairment for Europeans with myopia. JAMA Ophthalmol. 2016;134:1355–1363
- Foreman J et al. Association between digital smart device use and myopia: a systematic review and meta-analysis https://doi.org/10.1016/S2589-7500(21)00135-7
- Ip JM et al. Role of near work in myopia: findings in a sample of Australian school children. Invest Ophthalmol Vis Sci. 2008 Jul;49(7):2903-10. doi: 10.1167/iovs.07-0804. PMID: 18579757.
- 9. Huang et al. Protective behaviours of near work and time outdoors in myopia prevalence and progression in myopic children: a 2-year prospective population study. Br J Ophthalmol. 2020 Jul;104(7):956-961
- Chamberlain P et al A 3-year Randomized Clinical Trial of MiSight® Lenses for Myopia Control. Optom Vis Sci 2019;96:556–567
- 11. Liu, X.N., Naduvilath, T.J., Wang, J. et al. Sleeping late is a risk factor for myopia development amongst schoolaged children in China. Sci Rep 10, 17194 (2020). https://doi.org/10.1038/s41598-020-74348-7

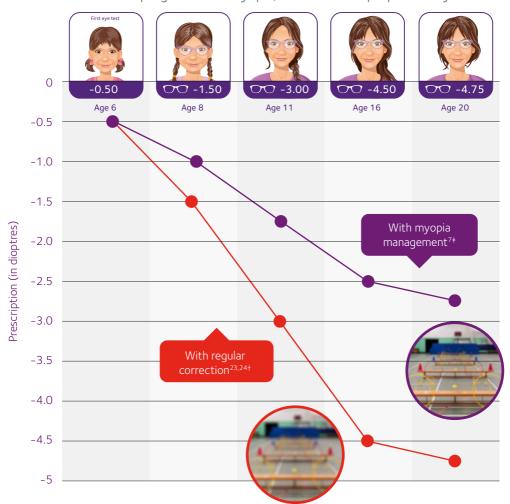




## Myopia management technology provides clear vision whilst aiming to slow the worsening of myopia over time.<sup>21\*</sup>

This can reduce future eye health issues by **up to 40%** for every dioptre saved<sup>22</sup> e.g. -3.00 to -2.00

Estimated progression of myopia; for illustrative purposes only.



<sup>\*</sup>Children ages 8 to 15 when starting MiSight 1 day treatment experienced a slowing of myopia progression.

<sup>†</sup>Estimated progression of myopia; for illustrative purposes only.

<sup>&</sup>lt;sup>†</sup>Based on average published progression data, assuming a 50% treatment effect.

### **Options for your child**

If your child has been diagnosed with myopia, there are some clinically effective options that can **slow the worsening of myopia**. <sup>25</sup> Discuss the best option for your child with your eye care professional.

## Dual-focus myopia management: MiSight® 1 day contact lenses

- One day soft contact lenses which are worn during the day
- Ideal for active children
- Clinically proven for children aged 8+1,7,26,27\*
- Feel more competent when taking part in sport and other physical activities<sup>28</sup>





#### Myopia management glasses lenses

- Worn during the day
- A good choice if your child diligently wears their glasses
- Ideal for younger children

#### **Orthokeratology contact lenses**

- Hard contact lenses worn overnight
- Lens-free during daytime
- Ideal for children who frequently enjoy swimming and water sports where glasses and soft contact lenses may not be suitable



<sup>\*</sup>Children with myopia fit with MiSight® 1 day contact lenses ages 8–15 continued to experience slowed myopia progression as long as they remained in treatment.

### MiSight® 1 day contact lenses

The most clinically-tested myopia management optical technology. 7,26,27



Approved for use in many countries around the world



year clinical study



Tested in children aged 8-18



**ActivControl® Technology** in MiSight® 1 day contact lenses is a special optical design that can provide clear vision while also reducing the signal that's telling the eye to grow too long.<sup>7</sup>

- Correction zones for clear vision
- Treatment zones



Works for **nearly all children** with myopia<sup>21</sup>\*



Cuts the worsening of myopia by half<sup>1†</sup>



Works at any age the child starts treatment<sup>1‡</sup>



Benefits are proven to last after treatment has ended<sup>27,29§</sup>

Easy for children to apply, wear and remove.<sup>30</sup>

<sup>\*90%</sup> of myopic eyes respond to MiSight® 1 day treatment; ages 11-15 at start of wear, n=90.

<sup>\*</sup>Using measured and modeled data, pooled across ages (8–17), MiSight® 1 day slowed myopia progression by an average of approximately 50%.

<sup>\*</sup>Children with myopia fit with MiSight® 1 day contact lenses ages 8–15 continued to experience slowed myopia progression as long as they remained in treatment.

<sup>§12</sup> months post-treatment, evidence indicates that no accumulated myopia control benefits were lost following 3 or 6-years of MiSight® 1 day wear (on average, for children aged 8-15 at start of wear). Instead, eye growth reverted to expected, age-normal rates.

#### Your appointment details

#### Ask your eye care professional about MiSight® 1 day



## Or for more information please see www.misight.co.uk

Nothing in this leaflet is to be construed as medical advice, nor is it intended to replace the recommendations of your eye care professional.

References: 1. Arumugam B et al. Modelling Age Effects of Myopia Progression for the MiSight 1 day Clinical Trial. Invest. Ophthalmol Vis Sci. 2021; 62(8): 2333. 2. Holden BA, Fricke TR, Wilson DA, et al. Global prevalence of myopia and high myopia and temporal trends from 2000 through 2050. Ophthalmology. 2016;123(5):1036-1042. 3. Lamoureux E L et al. Myopia and Quality of Life: The Singapore Malay Eye Study (SiMES). Invest. Ophthalmol Vis Sci. 2008; 49(13): 4469. 4. Chua S Y L and Foster P J. The Economic and Societal Impact of Myopia and High Myopia. Ang M and Wong T. (eds.) Updates on Myopia. Springer. 2020; 53-63. 5. Tideman J W et al. Association of axial length with risk of uncorrectable visual impairment for Europeans with myopia. JAMA Ophthalmol. 2016; 134(12): 1355-1363. 6. Zadnik K et al. Factors Associated with Rapid Myopia Progression in Schoolaged Children. Invest. Ophthalmol Vis Sci. 2004; 45(13): 2306. 7. Chamberlain P et al. A 3-year Randomized Clinical Trial of MiSight Lenses for Myopia Control. Optom Vis Sci. 2019; 96(8): 556-567. 8. Morjaria P. How myopia develops. Community Eye Health. 2019;32(105): 4. 9. Zadnik K et al. Prediction of Juvenile-Onset Myopia. JAMA Ophthalmol. 2015; 133(6): 683 10. Morgan P. Is Myopia Control the Next Contact Lens Revolution? Optician Select. 2016. Available at: https://www. magonlinelibrary.com/doi/full/10.12968/opti.2016.5.127. Accessed August 2021. 11. Gifford P et al. The Future of Myopia Control Contact Lenses. Optom Vis Sci. 2016; 93(4): 336-43. 12. Morgan I G et al. Myopia: is the nature-nurture debate finally over? Clin Exp Optom. 2019; 102(1): 3-17. 13. Greenwald S H et al. Role of a Dual Splicing and Amino Acid Code in Myopia, Cone Dysfunction and Cone Dystrophy Associated with L/M Opsin Interchange Mutations. Transl Vis Sci Technol. 2017; 6(3): 2. 14. Wolffsohn J S et al. Global trends in myopia management attitudes and strategies in clinical practice. Cont Lens Anterior Eye. 2016; 39(2): 106–116. 15. Yazar S et al. Myopia is associated with lower vitamin D status in young adults. Invest Ophthalmol Vis Sci. 2014; 55(7): 4552-9. 16. Feldkaemper M et al. An updated view on the role of dopamine in myopia. Exp Eye Res. 2013; 114: 106-19. 17. Chen S J et al. Prevalence and associated risk factors of myopic maculopathy in elderly Chinese: the Shihpai eye study. Invest Ophthalmol Vis Sci. 2012; 53(8): 4868-73. 18. Flitcroft D I. The complex interactions of retinal, optical and environmental factors in myopia aetiology. Prog Retin Eye Res. 2012; 31(6): 622-60. 19. Xu L et al. High myopia and glaucoma susceptibility the Beijing Eye Study. Ophthalmology. 2007; 114(2): 216-20. 20. Younan C et al. Myopia and incident cataract and cataract surgery: the blue mountains eye study. Invest Ophthalmol Vis Sci. 2002; 43(12): 3625-32. 21. Chamberlain P et al. Long-Term Effect of Dual-Focus Contact Lenses on Myopia Progression in Children: A 6-year Multicenter Clinical Trial. Optom Vis Sci. 2022; 99(3): 204-212. 22. Bullimore M A et al. Myopia Control: Why Each Diopter Matters. Optom Vis Sci. 2019; 96(6): 463-465. 23. McCullough S et al. Axial growth and refractive change in white European children and young adults: predictive factors for myopia. Sci Rep. 2020; 10(1): 15189. 24. Polling J R et al. Myopia progression from wearing first glasses to adult age: the DREAM study. Br J Ophthalmol. 2021; bjophthalmol - 2020-316234. 25. The College of Optometrists. Myopia Management - Guidance for optometrists. https://www.college-optometrists.org/category-landing-pages/clinical-topics/myopia/myopia-management-%e2%80%93-guidance-for-optometrists. Accessed 8th June 2022. 26. Chamberlain P et al. Myopia Progression in Children wearing Dual-Focus Contact Lenses: 6-year findings. Optom Vis Sci. 2020; 97(E-abstract): 200038. 27. Chamberlain P et al. Myopia progression on cessation of Dual-Focus contact lens wear: MiSight 1 day 7-year findings. Optom Vis Sci. 2021; 98(E-abstract): 210049. 28. Rah M J et al. Vision specific quality of life of pediatric contact lens wearers. Optom Vis Sci. 2010; 87(8): 560-6. 29. Hammond D, Arumuqam B, et al. Myopia Control Treatment Gains are Retained after Termination of Dual-focus Contact Lens Wear with no Evidence of a Rebound Effect. Optom Vis Sci. 2021; 98(E-abstract): 215130. 30. Sulley A et al. Wearer experience and subjective responses with dual focus compared to spherical, single vision soft contact lenses in children. Optom Vis Sci. 2019; 96(E-abstract): 195252.

© 2022 CooperVision. CooperVision°, ActivControl° and MiSight° are registered trademarks of The Cooper Companies, Inc. and its subsidiaries.

MiSight® 1 day contact lenses





