

## Impact of myopia

**2020**

Myopia affects almost  
**30%** of the world's population

**2050**

Myopia is estimated to affect  
**50%**  
High myopia will affect  
**10%** of the world's population

Myopia -0.50 D or worse  
High myopia -5.00 D or worse



### Risk of vision impairment

Uncorrected myopia is a leading cause of avoidable vision impairment. Complications associated with high myopia can be sight threatening e.g. myopic macular degeneration.



### Education

In children, poor vision or uncorrected vision can impact scholastic performance and result in psychosocial stress. Negative attitudes to spectacle wear may also affect psychosocial well-being.



### Quality of Life (QOL)

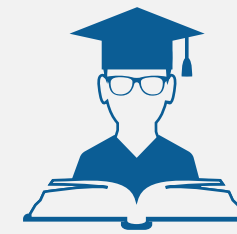
Reduced QOL has been demonstrated for myopia and myopia-related complications. QOL is impacted whether myopia is corrected or uncorrected and varies according to the type of corrective modality worn.



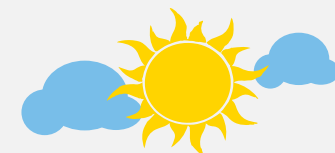
### Economic impact

Given the progressive nature of myopia, direct costs (expenditure on diagnosis, correction/management, transport and treatment of morbidity) and lost productivity costs are substantial.

## Risk factors



Higher levels of education and near work

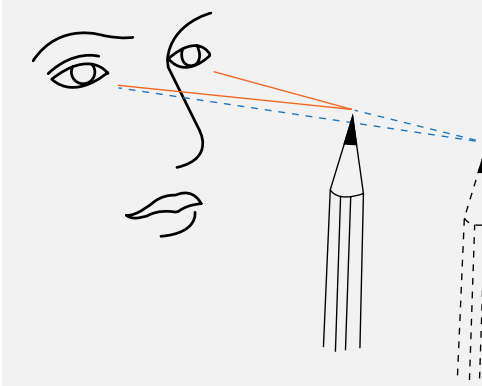


Less time outdoors



- East Asian ethnicity
- Parents with myopia
- Girls more susceptible according to some studies

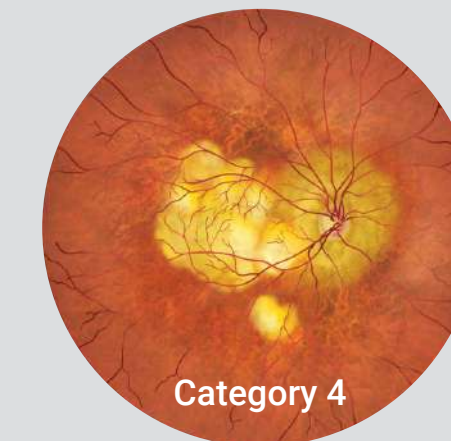
## Binocular vision



- Link with myopia development is unclear
- Important to optimize binocular vision in children to provide a single clear image

## Pathologic myopia

### META-PM classification system



Category	Retinal signs
0	No myopic retinal lesions
1	Tessellated (or tigroid) fundus
2	Diffuse choroidal atrophy
3	Patchy choroidal atrophy
4	Macular atrophy
Plus lesion	Lacquer cracks, myopic choroidal neovascularization, Fuchs spot
Posterior staphyloma	—

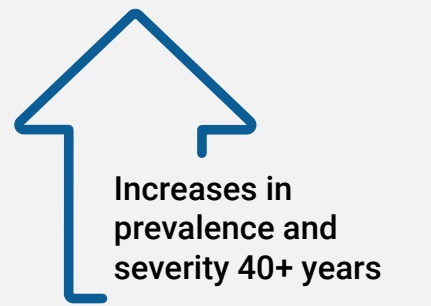
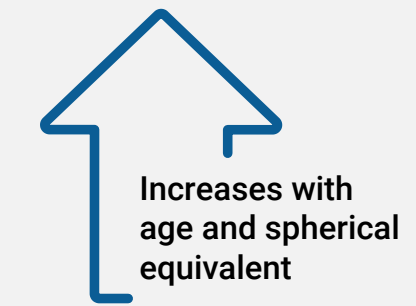


of the world's population is affected by pathologic myopia

**1-3%**  
Asians

**1%**  
Europeans

Affects  
**50-70%**  
of those with high myopia



## Management options – Reported treatment effectiveness varies with age of initiation, treatment duration as well as demographic/environmental factors.\*

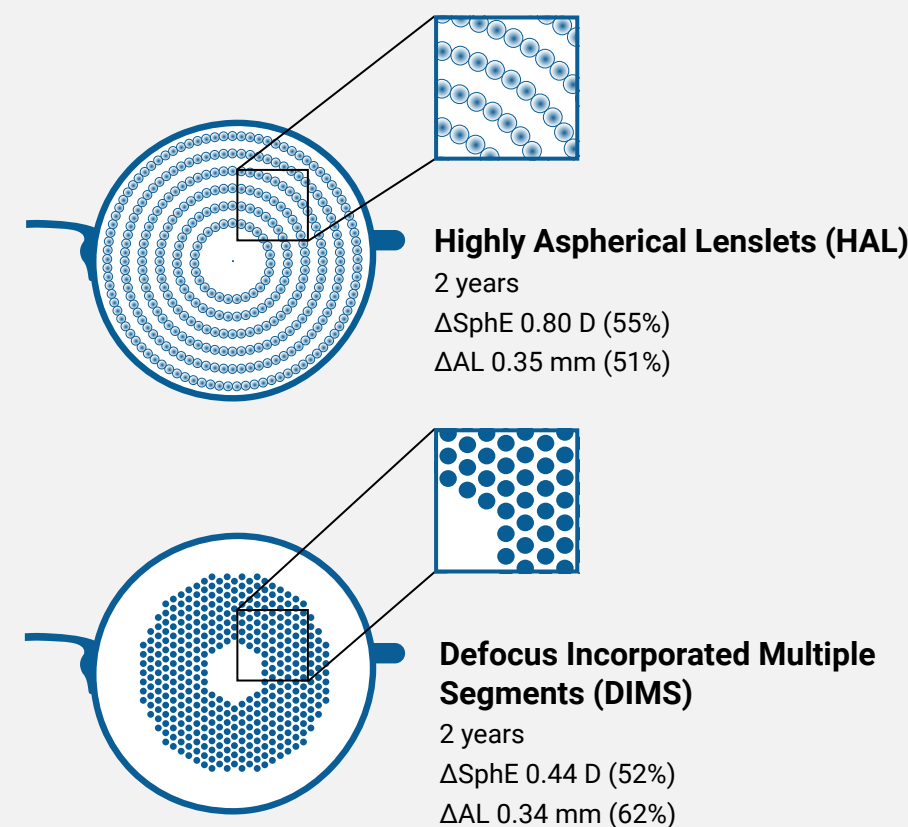
### Prevention



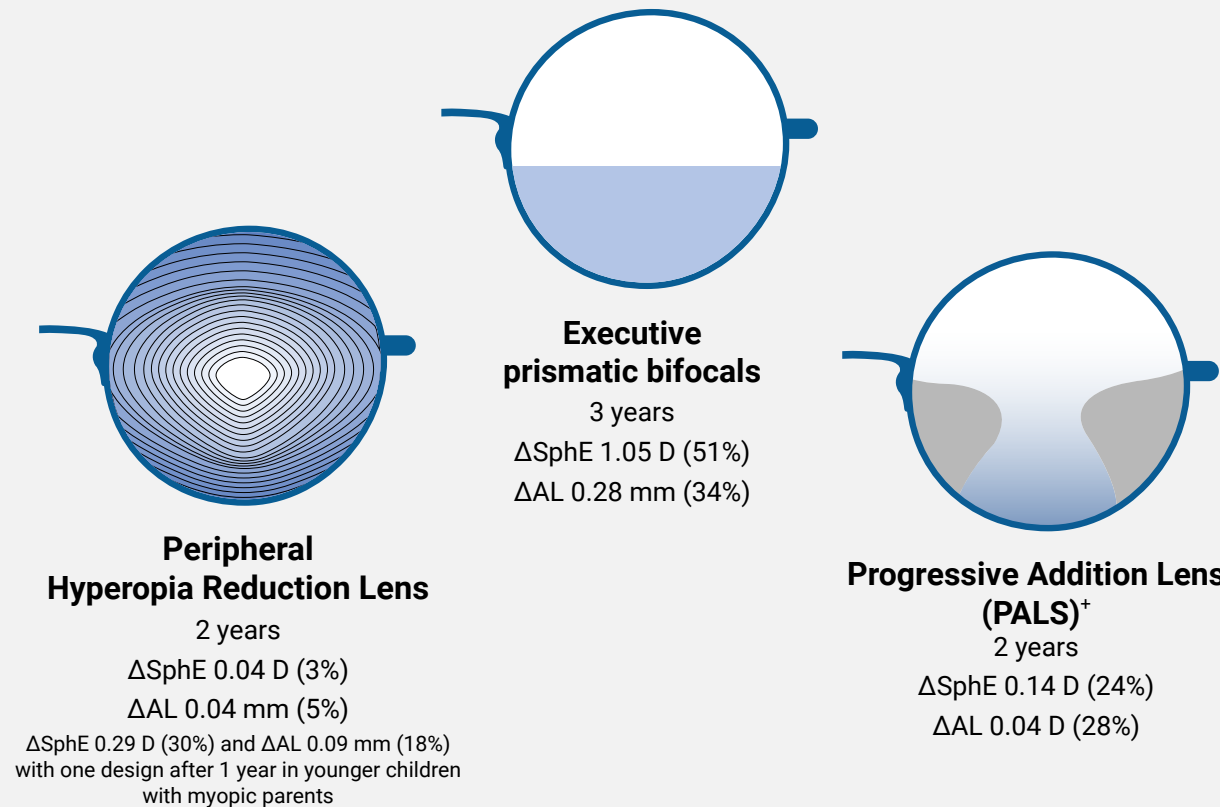
### Pharmacological option

Atropine LAMP Study 2 years	
<b>0.01%</b>	$\Delta$ SphE 1.12 D $\Delta$ AL 0.59 mm
<b>0.025%</b>	$\Delta$ SphE 0.85 D $\Delta$ AL 0.50 mm
<b>0.05%</b>	$\Delta$ SphE 0.55 D $\Delta$ AL 0.39 mm

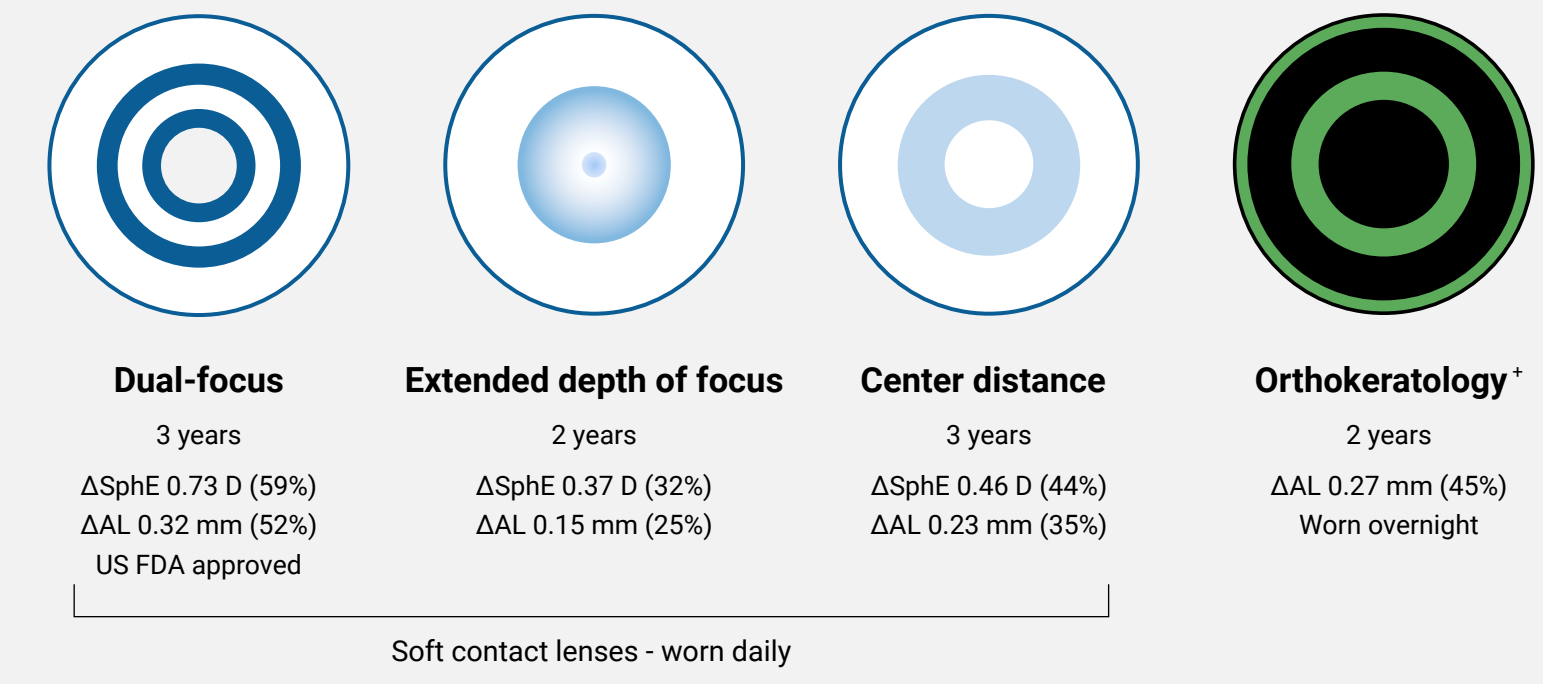
Total average change in SphE and AL over two years.



### Spectacle options



### Contact lens options



\* See IMI white papers for details of recent study results quoted. Note: The relationship of AL and SphE varies with level of myopia. + Meta-analysis

$\Delta$  = reduction in average progression compared to control group; SphE = spherical equivalent refractive error; AL = axial length