

Why is myopia management important

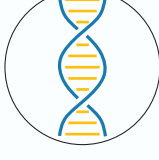
Myopia on the rise

2020
Myopia affects about **30%** of the global population

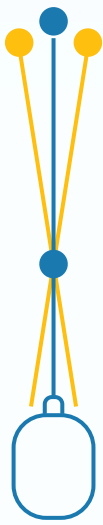
2050
Myopia will affect about **50%** of the global population

And high myopia about **10%** of the global population

Risk factors

-  Less than 80 minutes a day outside.
-  Higher education and/or increased near work
-  Parental myopia and East Asian ethnicity.

Binocular vision



The link with myopia development is unclear

Important to optimize BV to provide single clear vision

Myopia and risk of pathology

Pathologic myopia affects: 50 - 70% of people with high myopia

with age & degree of myopia

The increased odds of a 60yo myope developing one of the following ocular disease versus an emmetrope:

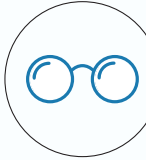
Eye Disease	>-3.00	>-6.00	≤-6.00
Myopia Maculopathy	13.6	72.7	845.1
Retinal Detachment	3.2	8.7	12.6
PSC Cataract	1.6	2.6	4.6
Glaucoma	1.6	2.9	-

Every diopter of myopia or millimeter of axial length progression matters.

Management options

Basics

Don't under-correct



Has no benefit / increase myopia progression.

Increase time outdoors



At least 80 to 120 minutes outside daily.

Limit continuous near time



Encourage frequent breaks: 20-20-20 rule.

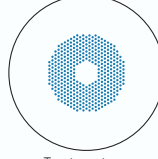
Ensure good lighting



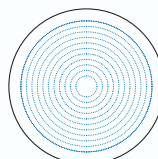
Maximize both indoor and natural lighting.

Spectacle lenses

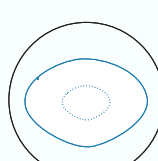
DIMS
ΔSE: 0.44 D (52%)
ΔAL: 0.34 mm (62%)
Duration: 2 yrs



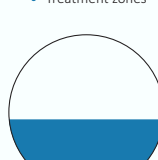
HAL
ΔSE: 0.80 D (55%)
ΔAL: 0.35 mm (51%)
Duration: 2 yrs



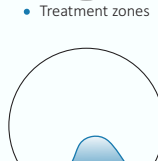
Peripheral Defocus
ΔSE: 0.04 D (3%)
ΔAL: 0.04 mm (5%)
Duration: 2 yrs



Prism Bifocal
ΔSE: 1.05 D (51%)
ΔAL: 0.28 mm (34%)
Duration: 3 yrs



Progressive Addition
ΔSE: 0.14 D (24%)
ΔAL: 0.04 mm (28%)
Duration: 2 yrs



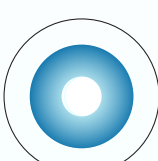
Contact lenses

Soft Contact Lenses

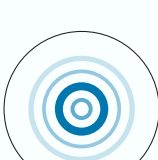
Dual Focus
ΔSE: 0.73 D (59%)
ΔAL: 0.32 mm (52%)
Duration: 3 yrs



Center Distance
ΔSE: 0.46 D (44%)
ΔAL: 0.23 mm (35%)
Duration: 3 yrs

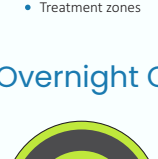


Extended DOF
ΔSE: 0.37 D (32%)
ΔAL: 0.15 mm (25%)
Duration: 2 yrs



Overnight Contact Lenses

Orthokeratology
ΔAL: 0.27 mm (45%)
Duration: 2 yrs



Pharmaceuticals

Atropine (LAMP Study)

Atropine 0.01%
ΔSE: 1.12 D
ΔAL: 0.59 mm
Duration: 2 yrs



Atropine 0.025%
ΔSE: 0.85 D
ΔAL: 0.50 mm
Duration: 2 yrs



Atropine 0.05%
ΔSE: 0.55 D
ΔAL: 0.39 mm
Duration: 2 yrs



For the second year of this study, all the participants in the control group where switched to also receive 0.05% atropine. Therefore, no control-compared efficacy data are available.

Δ = total average progression in SE and AL over the full duration of the study
SE = spherical equivalent
AL = axial length

Δ = reduction in average myopia progression compared to the control group SE = spherical equivalent AL = axial length

