



MYOSAFE

SPECIALITY LENS FOR MYOPIA MANAGEMENT

MYOPIA - A GROWING CONCERN

Myopia is more commonly referred to as nearsightedness, or the inability to see objects clearly at a distance. Myopia is on the rise - in its frequency and its severity. The reason for its escalation has been linked to two factors:

Genetics

Children with one or two myopic parents are more likely to be myopic



Lifestyle

Children who spend more time on activities like reading or using handheld devices instead of spending time outdoors are more likely to become myopic



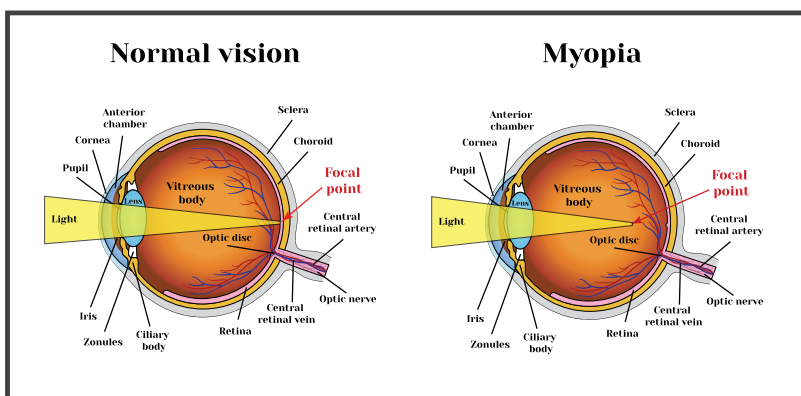
MYOPIA: A GLOBAL EPIDEMIC

2020

Myopia affects almost 30% of the world's population. 3% of the world's population is affected by pathologic Myopia.

2050

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



A REVOLUTIONARY SINGLE VISION LENS

NOVA MyoSafe - Concept of Perifocal
An external solution for Myopia

NOVA MyoSafe has been designed under the principle of Horizontal Defocus management.

The key concept is the correction of the peripheral "hyperopic shift" that reduces the advance of eye elongation and, thus, of slowing the myopia progression in young wearers.

NOVA MyoSafe focuses on the peripheral hypermetropic defocus through horizontal meridian.

This allows to slow down the elongation of the eye that, without correction, would have continued the work of accommodation to adapt to the peripheral focal point, causing blurring in the vision of objects at a medium/far distance.

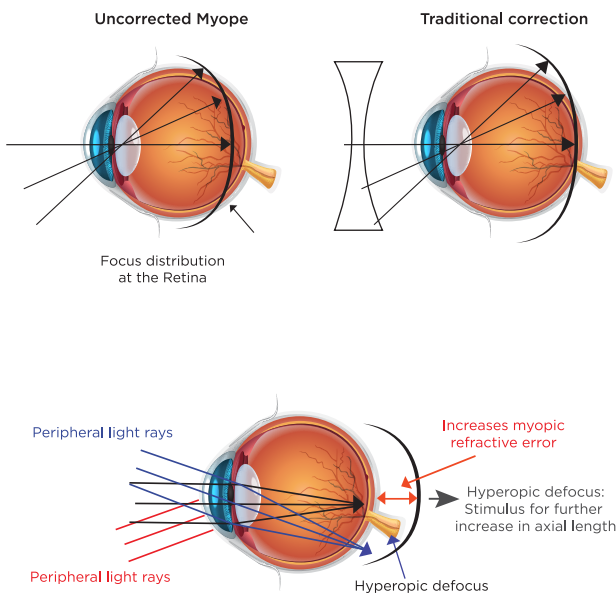
DESIGN CHARACTERISTICS

The optical design features of NOVA MyoSafe lenses consist of a central vision area, that provides stable refraction at the geometric center, surrounded by a progressive peripheral vision with asymmetrical positive/myopic defocus in the horizontal meridian.

Refraction along the vertical meridian of the lens maintains stable with a magnitude similar to the geometric center. Along the horizontal meridian of the lens, it is induced an asymmetric addition to the nasal and temporal side.

The addition in the nasal side of the lens begins at 6 mm and reach its maximum value of 2.00D at 25mm from the optical center.

A higher level of defocus is induced in the temporal side of the lens (nasal peripheral retina) by means of a progressive addition that start at 4mm from the geometric center and reaches its maximum value of 2.50D at 25 mm.

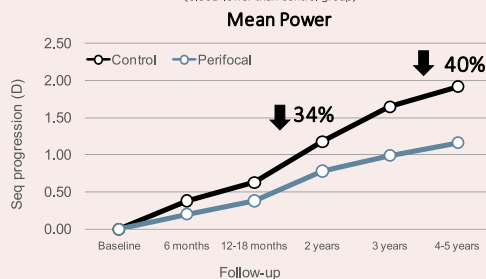


EFFICACY RESULTS

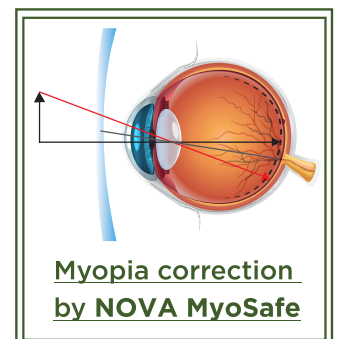
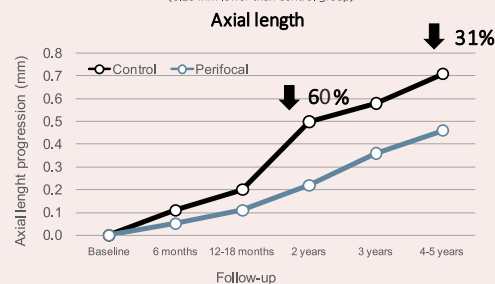
Long-term follow-up study (5 years):

Treatment group: 94 children aged from 7 to 14 (Perifocal)
Control group: 52 children aged from 8 to 14 (Standard SV)

Myopia level was significant lower for wearers of Perifocal lenses (0,80D lower than control group)



Axial length was significant lower for wearers of Perifocal lenses (0,25 mm lower than control group)



*Study carried out by the Scientific Medical Research Center for Eye Diseases of Helmholtz of the Ministry of Health of Russia in the period from 2012 to 2018

FEATURES & BENEFITS :

- Nova MyoSafe Lenses considers specific features of myopic eye's central and peripheral refraction around horizontal and vertical meridians, providing optical balance by creation of emmetropic refraction profile.
- These lenses creates myopic peripheral defocus in myopic eyes, providing conditions to influence on local neuroregulating mechanisms of eye growth.
- These lenses increases accommodation. The visual axis of each eye reaching lens area where optical power is higher when gazing, the image becomes blurred on fovea, providing conditions to stimulate relaxation of accommodation.
- These lenses induces positive spherical aberration in the eye. The progression of light rays going to the eyes on the edge of the pupil, which creates a positive spherical aberration in the eye.
- These lenses contribute to the preservation of high binocular visual acuity. For example when versioned eye movements, the visual axis of one eye directed into the lens with a stronger refraction before visual axis of the fellow eye creating a monocular micro blurred image on the retina that provides the conditions for a mild dissociation of binocular image, which is an incentive to the fusion and strengthening bifoveal merge.