Relax
manage myopia

- If myopia increases in children or young adults
- Polynomial progression control (PPC)
- Adjustable treatment Zone
- For school, study and freetime
- In sphere or toric design
- High initial comfort with silicone hydrogel

FREE treatment zone calculator:
www.swisslens.ch/toolbox
Enhancing the optical zone of custom made myopia prevention contact lenses

Several domestic and international health institutions such as The World Health Organisation (WHO), the Brien Holden Institute and the British Association of Optometrists (AOP) have published recommendations for the use of myopia control contact lenses. Even though research into peripheral refraction in connection with myopia control is still ongoing, multiple studies have clearly indicated that multifocal contact lenses, as well as orthokeratology contact lenses, have a positive effect on the slowing of myopia progression. Walline reviewed the peer-reviewed literature of studies which used the currently available standard lens geometries and found that the progression of myopia can be reduced by up to 50%.

Aller’s research however, shows a success rate of over 70% in myopia reduction. These studies raise the questions: Why do not all children and adolescents respond positively to these products? How can we improve the products that myopia prevention has a positive effect on everybody?

A closer look into Aller’s work shows that it is important to not only test the binocular vision when fitting multifocal or orthokeratology contact lenses, but to take this into account in order to improve this success rate and this is borne out in other studies too.

Is this the key to more effective myopia control?

Binocular vision investigations which influence the success rate would include measuring the AC/A ratio, accommodative lag and any heterophoria together with an assessment of its compensation.
A high accommodative convergence movement occurring with the accommodative effort (a high AC/A ratio) or a decompensating phoria deserves special attention. A Malaysian study showed that children with a significant near esophoria are more likely to develop myopia and this can be tested for with the Schober Test, or a fixation disparity test, at the habitual reading distance. The aligning sphere can be used to indicate which near addition would be optimal for myopia control. Furthermore, an accommodative lag has also been shown to trigger myopia progression and seems to be more prevalent in myopes than in emmetropes. In accommodative lag, the image shell would not be formed on the retina but would be relatively hypermetropic (i.e. behind the retina) and this has been shown to be a stimulus for a progression of the myopia. By having a relatively hyperopic power in the periphery of the contact lens, the effect of the accommodative lag can be overcome. Further aspects which influence the progression of myopia include aberrations caused by both the pupil itself and the size of the optical zone of the contact lens in relation to the pupil diameter (Michaud et al) describe how the pupil diameter also influences which lens design might be more beneficial and this is taken into account in our individualised lens designing.

**What does SwissLens offer?**

SwissLens provides an online calculation tool available at www.swisslens.ch/toolbox where you can enter additional measurements in order to obtain the ideal parameters needed for a customised near zone, maximizing the opportunity to achieve the best possible hyperopic defocus control result.

The Relax soft contact lens has been on the market for 9 years with proven effectiveness and the feedback from our customers has been extremely positive. This product is available in spherical as well as toric options, with an almost limitless choice of diameters and base curves to ensure a perfect fit. Depending on the quality of the tear film we offer different materials, including Definitive Silicon and you can choose between 3 or 6-month replacement schedules. Since 2015, our Relax contact lens has also been available in RGP materials and right now we are also developing an orthokeratology version. The combination of our online tool, additional test recommendations and our Relax products will allow a more precise myopia management.

Ongoing studies will also lead to a better understanding of the relationship between binocular vision, the pupil size, the prescription variations and the mechanisms of the longitudinal growth of the eye.

![Imaging with unifocal](image1)

![Imaging with Relax](image2)

see website for references
The Relax contact lens is CE certified for myopia management in children between 8 and 18 years of age with the indication of progressive myopia.

Relative peripheral hyperopia is corrected with the proven technology of optimized Hyperopic Defocus Control (HDC™). This ensures optimized imaging of the entire retina, including the periphery. Since single vision lenses do not correct this peripheral defocus, the focal plane is located peripherally behind the retina and could, therefore, be a stimulus for longitudinal growth.

The structure is similar to that of a concentric multifocal lens, whereby the distance is exclusively in the center. For myopia management, polynomial progression with Hyperopic Defocus Control (HDC™) is located in the periphery of the contact lens.

The size and the beginning of the HDC™ are variable.

Technical data

<table>
<thead>
<tr>
<th>Relax</th>
<th>soft spherical contact lens</th>
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<tbody>
<tr>
<td>Relax T</td>
<td>soft toric contact lens</td>
</tr>
<tr>
<td>RelaxFlex</td>
<td>RGP contact lens with aspheric back surface</td>
</tr>
<tr>
<td>NightFlex</td>
<td>contact lens for orthokeratology</td>
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Customisable polynomial progression control (PPC) on the front surface

<table>
<thead>
<tr>
<th>Relax</th>
<th>Orbitflex</th>
<th>NightFlex</th>
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<tbody>
<tr>
<td>Diameter</td>
<td>min</td>
<td>max</td>
</tr>
<tr>
<td>Base curve</td>
<td>7.00</td>
<td>→</td>
</tr>
<tr>
<td>Sphere</td>
<td>plano</td>
<td>→</td>
</tr>
<tr>
<td>Cylinder</td>
<td>-0.25</td>
<td>→</td>
</tr>
<tr>
<td>Axis</td>
<td>0°</td>
<td>→</td>
</tr>
<tr>
<td>Addition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center distance diameter</td>
<td>2.50 to 5.50 mm (default 4.50 mm)</td>
<td>5.50 to 7.00 mm</td>
</tr>
<tr>
<td>Renewal</td>
<td>3 or 6 months</td>
<td>6 or 12 months</td>
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