

Presbyopia and contact lenses

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Patients needs and wishes



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Patients needs and wishes

- Listen very carefully and active
- Every single „little something“ or habit is important
- Ask open questions
- Give your patient and yourself enough time

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Your expectations

- Living a realistic optimism
- Show all compromises of all forms of vision correction
- To cover 80% of the patients needs, leads in 100% success

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Monovision



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Monovision

- Figure out the dominant eye
 - Different possible techniques: “hole in a hand” and the “plus blur tolerance”
- No “forced choice” method
 - Let Patient point with a finger on a small target
 - The eye which stays aligned with the target is the dominant one

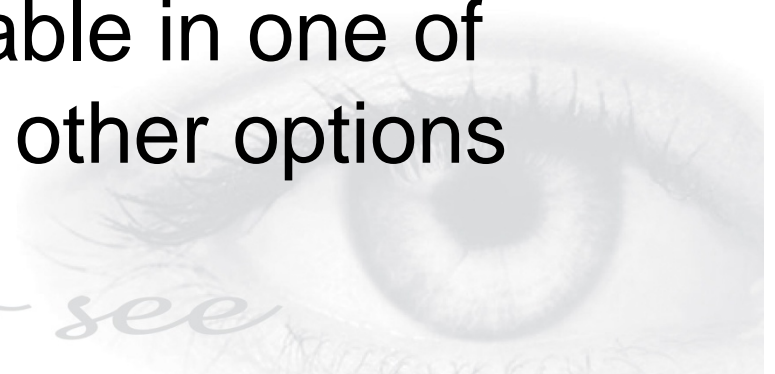
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Monovision Assessment

- Near target with a plus trial lens in front of the non-dominant eye
- Target for distance with the same lens situation
- If the vision's not comfortable in one of these situations, consider other options

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Modified Monovision

- Necessary if intermediate distance is missing
- The dominant eye still need to be corrected as good as possible for distance
- Adjust a bifocal solution in the non-dominant eye

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Aplanate / Diffractive Systems



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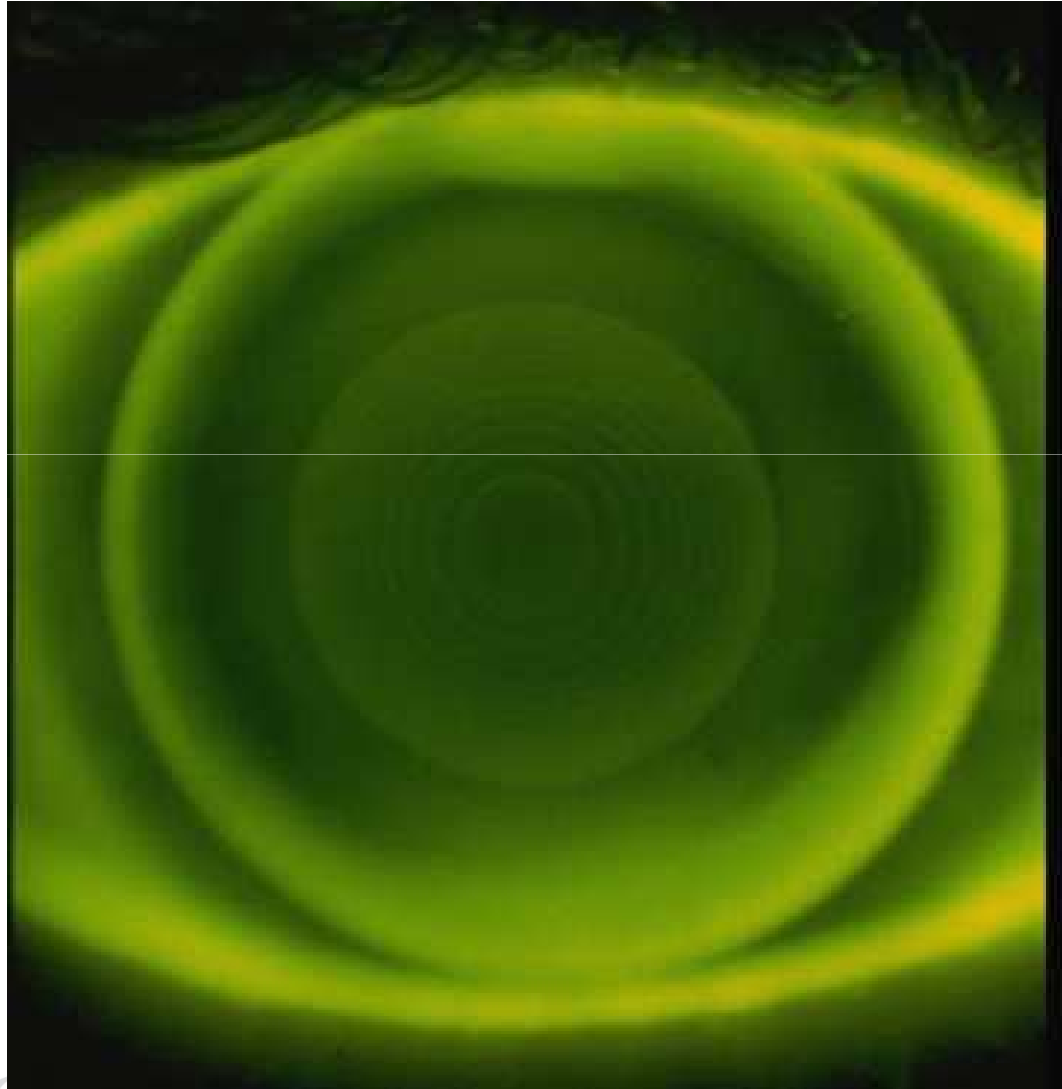
Aplanate Systems

- Using aspheric optic designs, leading in the correction of the optical aberrations, achieve a better depth perception
- Useful up to max. Addition of + 1.5dpt
- Not centered or dehydrated contact lenses will extremely decrease vision acuity

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Diffractive Systems



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Diffractive Systems

- Using diffractive optic designs for splitting light into two or more diffractive orders to different focal distances or ranges
 - Useful up to max. Addition of +1.5dpt
 - Not centered or dehydrated contact lenses will extremely decrease vision acuity

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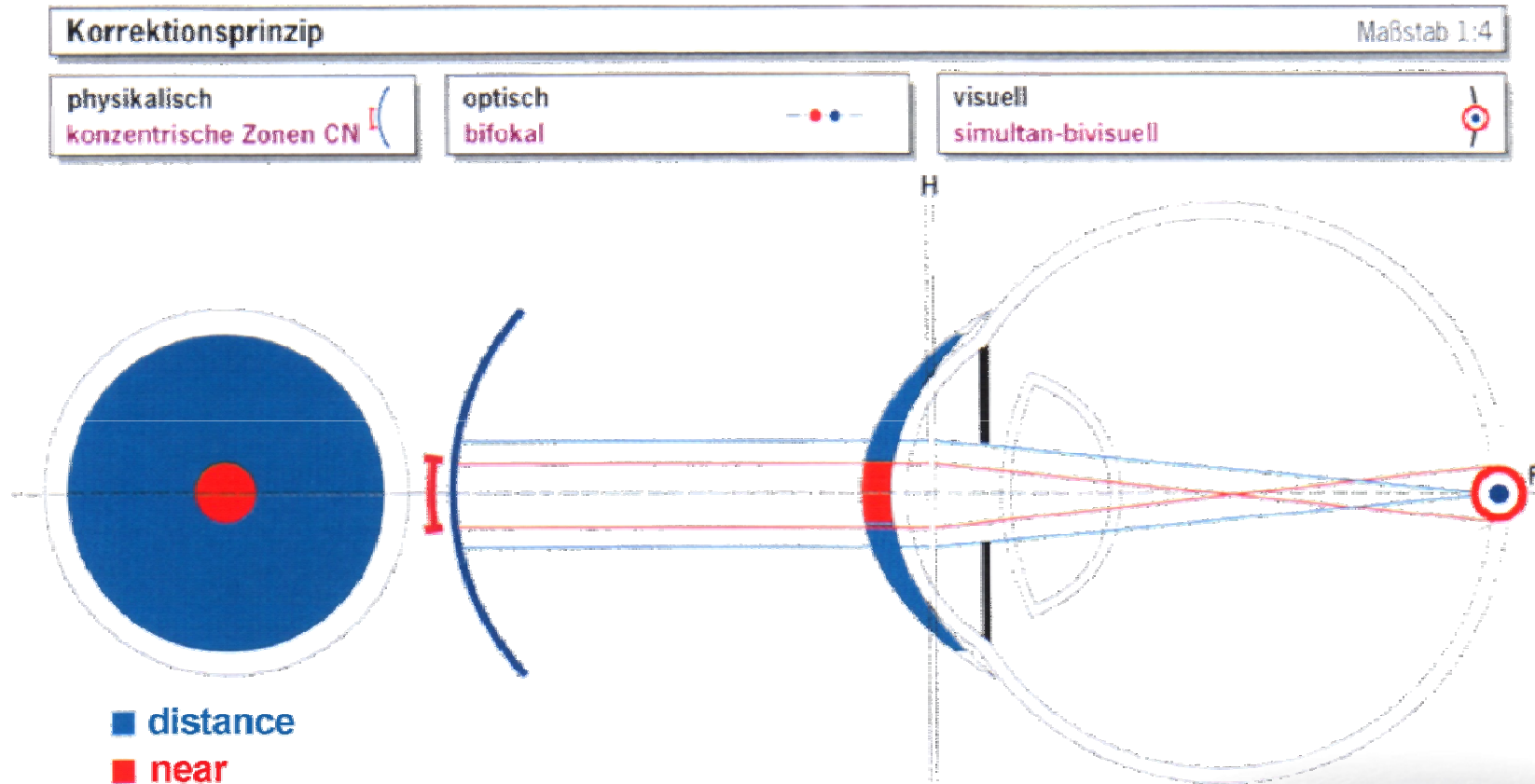
Simultaneous Systems



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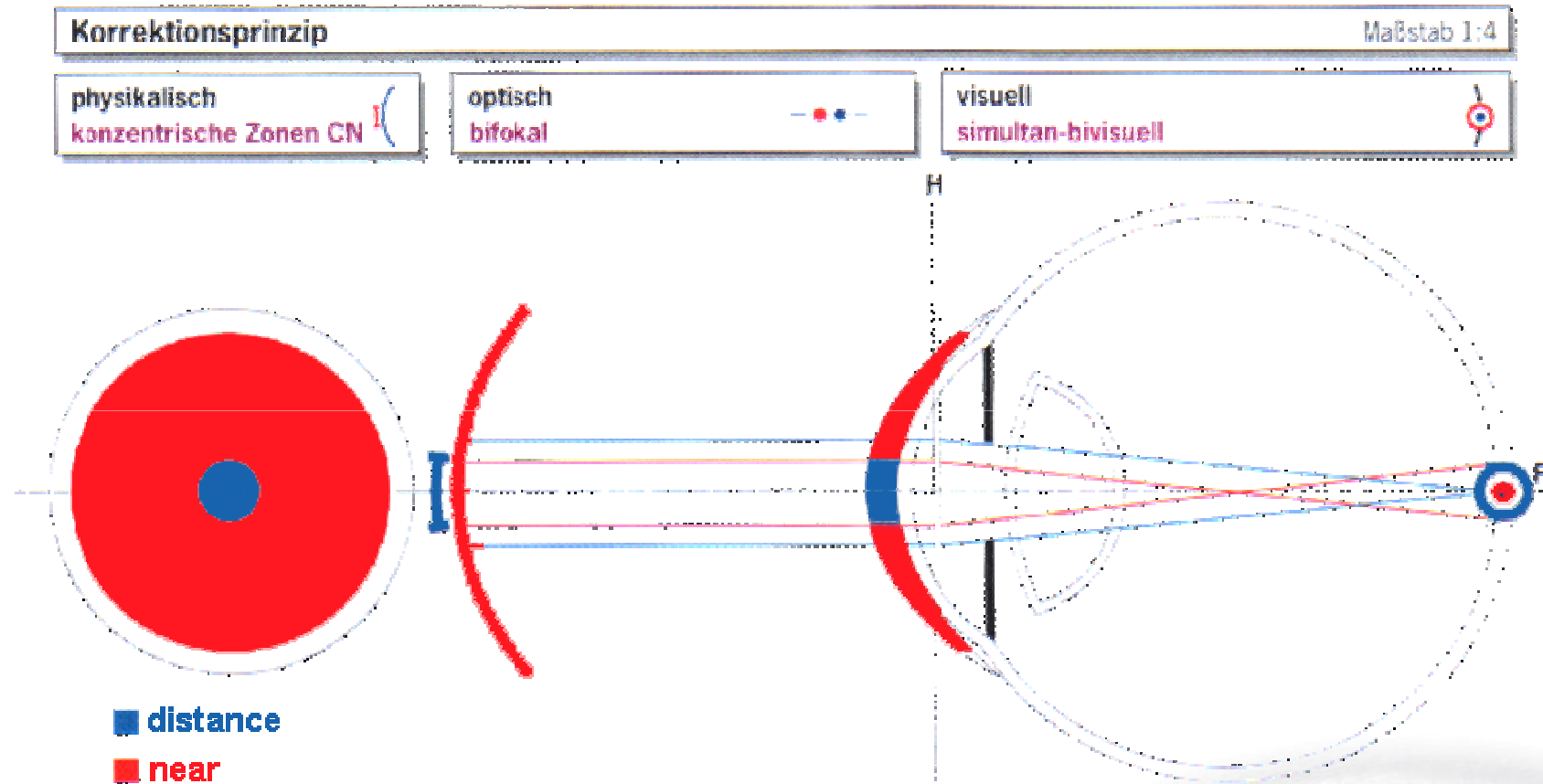
Bifocal, Simultaneous NC



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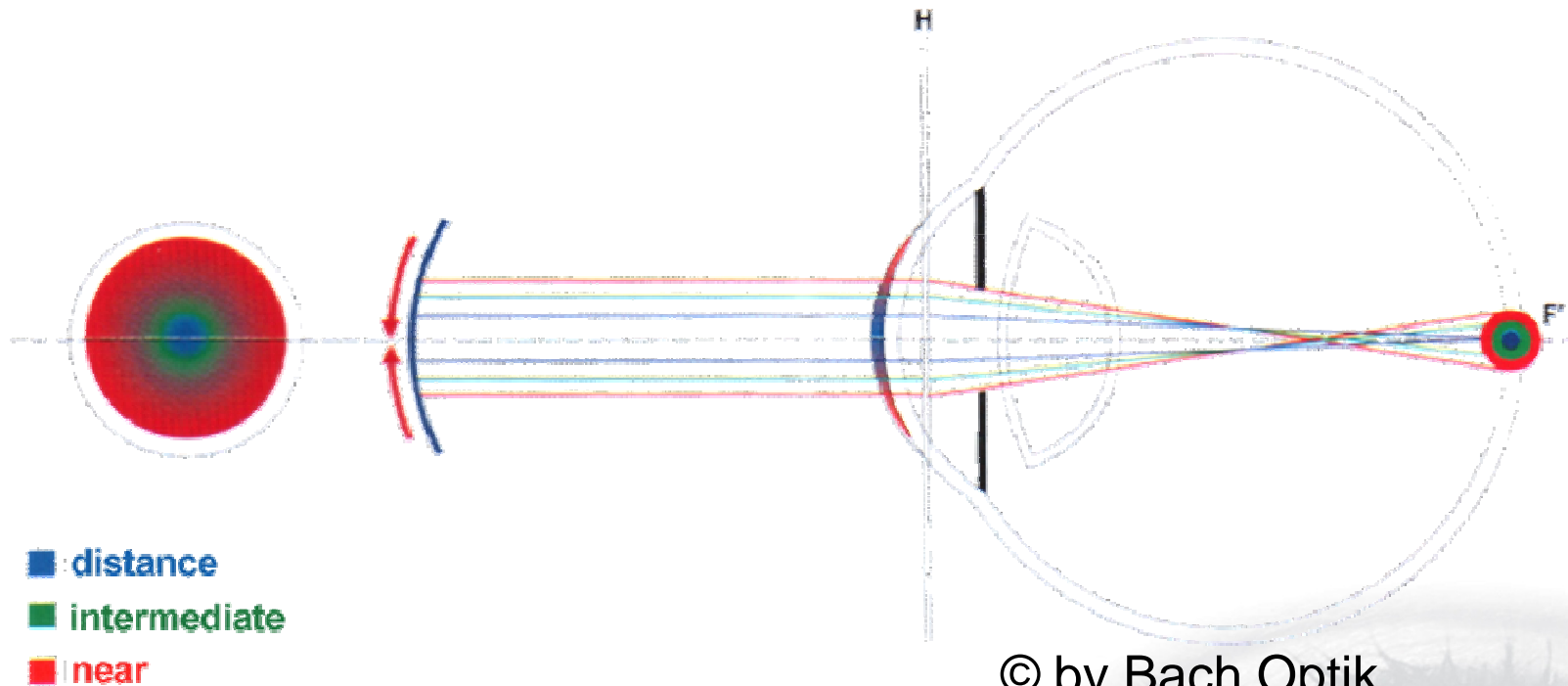
Bifocal, Simultaneous DC



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Multifocal, Simultaneous DC



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Advantages of simultaneous CL

- Distance and intermediate vision tasks
- Requires near vision in other than 270°
- Deep lower lid position / small lid opening
- Big pupil diameter / flat anterior chamber

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Disadvantages of simultan. CL

- Decreased contrast sensitivity, especially with uncorrected astigmatism
 - Dehydration of Soft-CL decrease contrast sensitivity additionally
- In thick contacts (plus corrections), contrast sensitivity can be decreased
 - MMA/VP materials instead of GMA/HEMA (Blank clarity)

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Simultaneous CL fitting pearls

- Golden Rule: Assess vision binocularly
 - Correct even little Astigmatism
 - Use individual diagnostic lenses or flippers to over-refract
- All designs are more or less pupil size related
 - Excellent lens centering needed

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Simultaneous CL fitting pearls

- Chose the near optic zone smaller on the dominant eye
 - Small adjustments in optic zone diameters lead in dramatic visual changes for your patient
- Better contrast sensitivity achieved with lower Addition on dominant eye

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Simultaneous CL fitting pearls

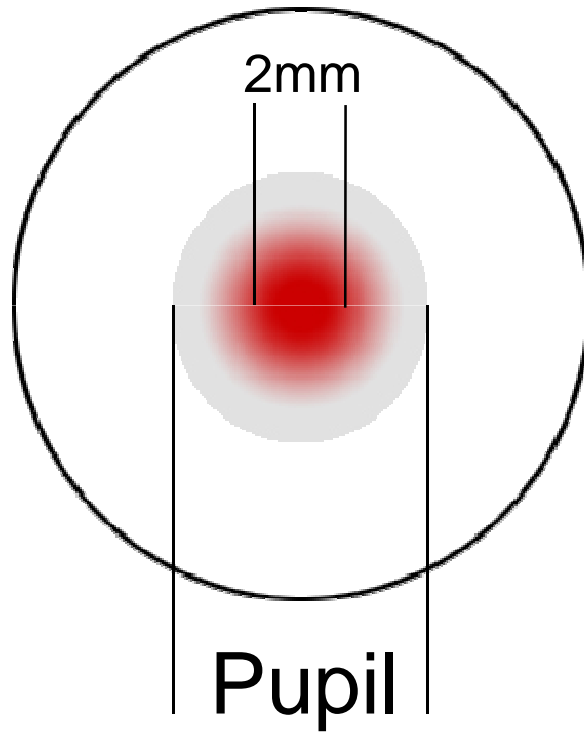
- Size of the optic zones
 - 60% of pupil diameter = target
 - Understand differences between near center and distance center with the same size of zone diameter

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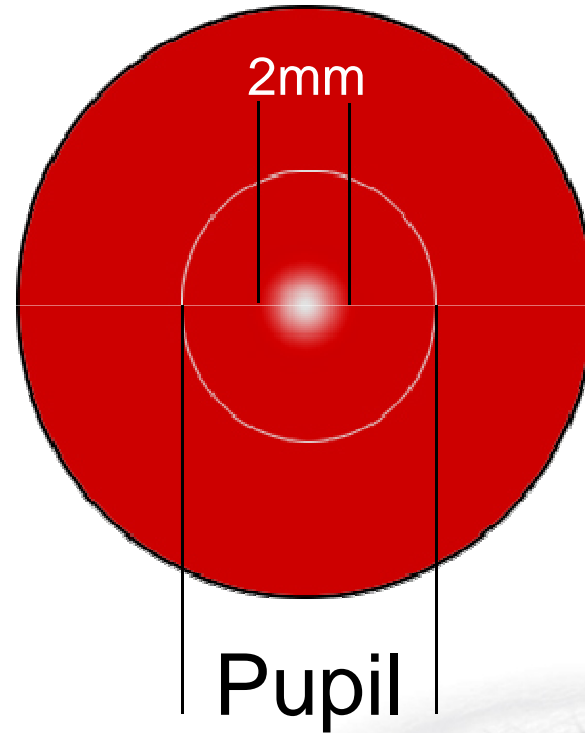
Simultaneous CL fitting pearls

NC



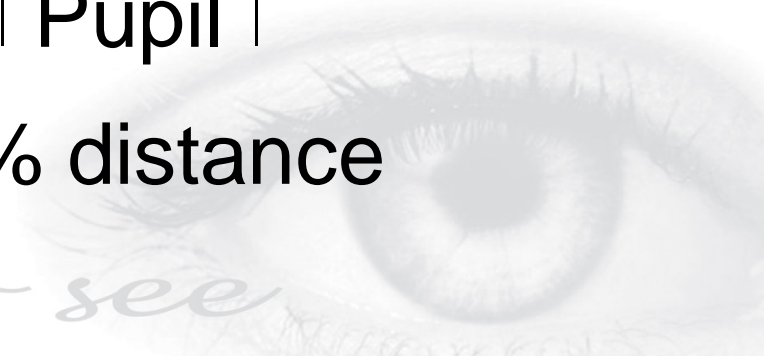
40% distance

DC



20% distance

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Simultaneous CL fitting pearls

- Gas permeable contact lenses (GP)
 - thin edge and big diameter (perilimbal / scleral GP Designs)
 - $DK > 100$, makes Continuous Wear possible (geriatric / pediatric solutions)

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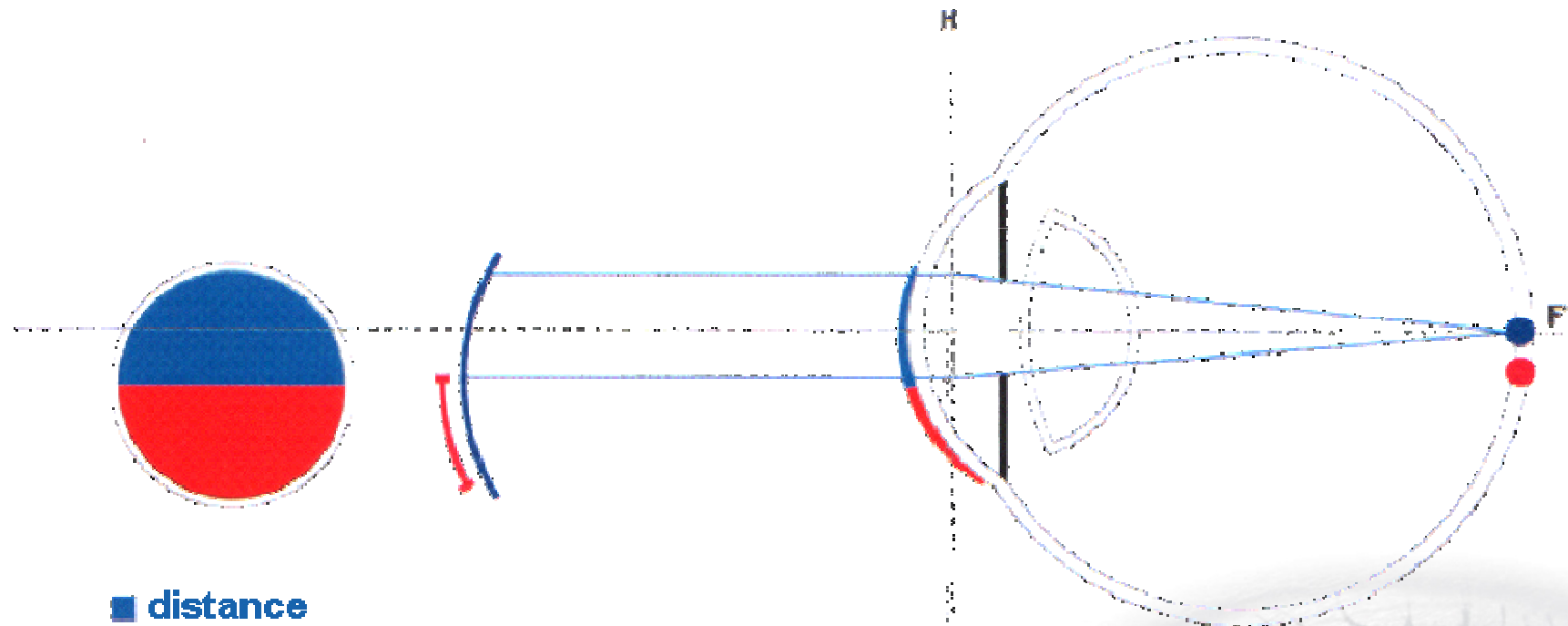
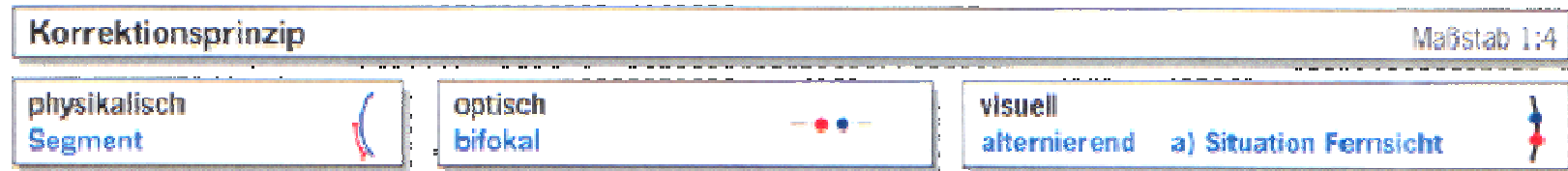
Translating Systems



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Translating Systems



■ distance

■ near

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Advantages of transl. Systems

- High contrast sensitivity demand
- High distance and near demand
- Moderate to high myopia and astigmatism
- Unrelated to pupil size and anterior chamber depth



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Disadvantages of translating CL

- Moderate vertical movement of CL necessary
 - And so, foreign-body sensation will be increased
- Intermediate vision demands not included



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Disadvantages of translating CL

- Near target only visible in down gaze
 - As a consequence distance vision not possible in down gaze
- Because of the amount of movement needed, normally impossible for soft contact lenses

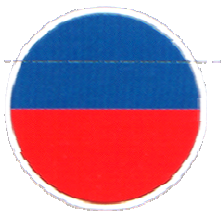


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Translating Design: fitting pearls

- Perfect fitted back surface (3+9 o'clock staining) especially in cases with an astigmatic cornea topography
- Don't use a too big size of the vertical diameter of CL

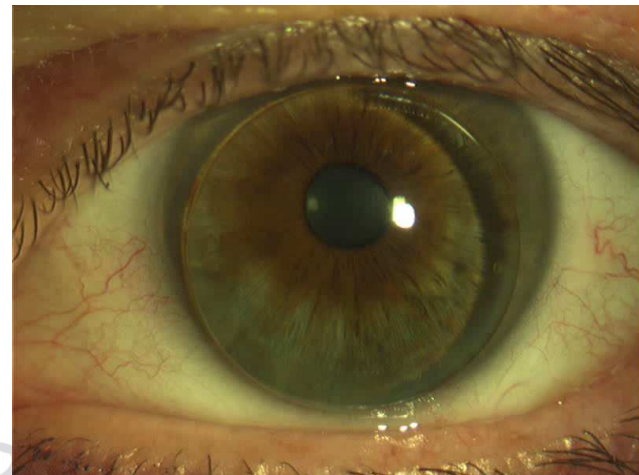


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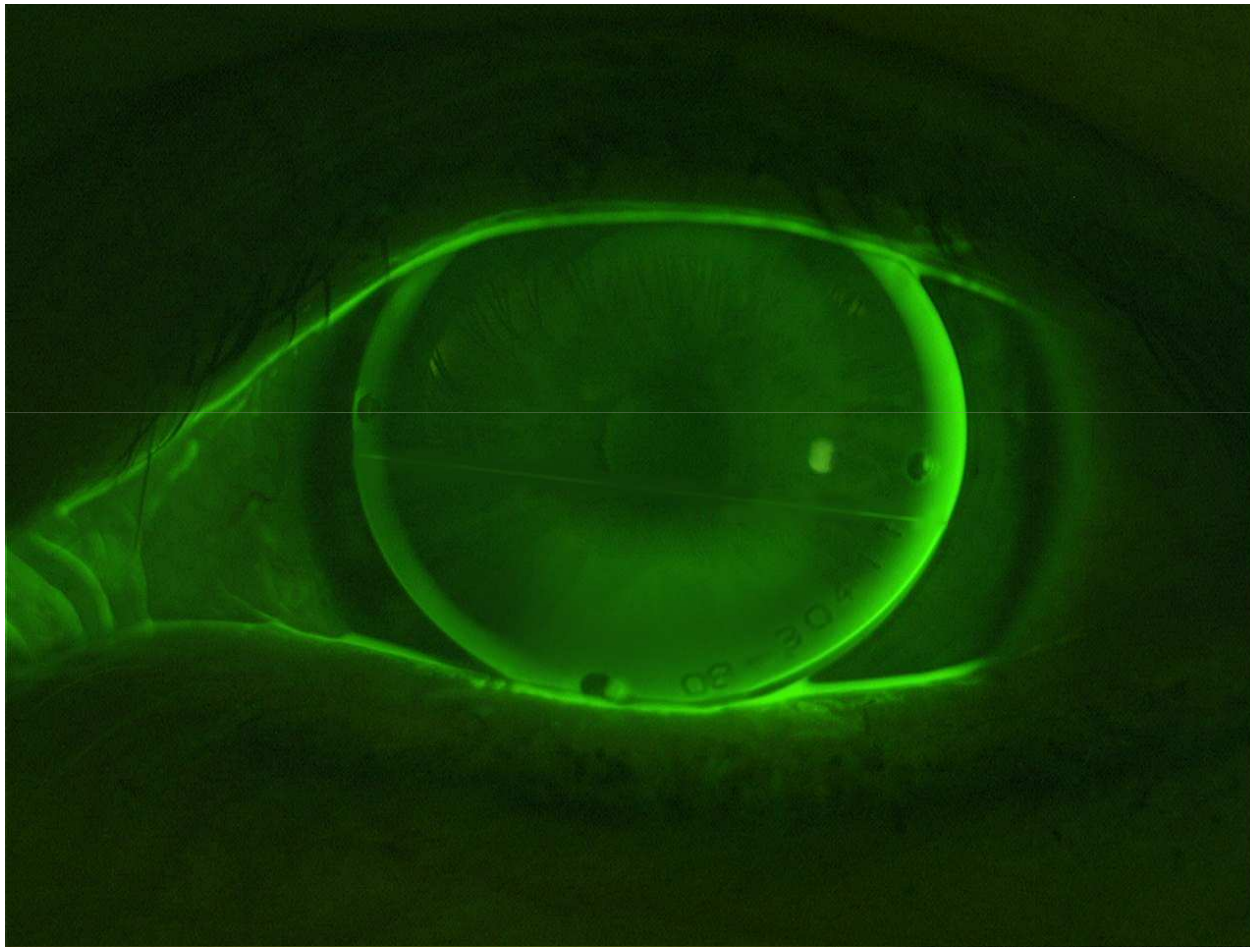
Advanced problem solving (GP)

- Highrider or slow translating of CL after blinking
 - Periphertoric backsurface Design
 - Toric backsurface Design
 - Rapid drop of CL after blink, achieved by oval size of the CL in 90°



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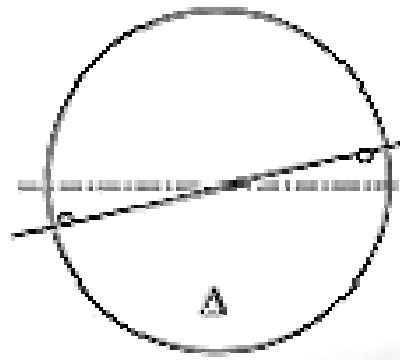
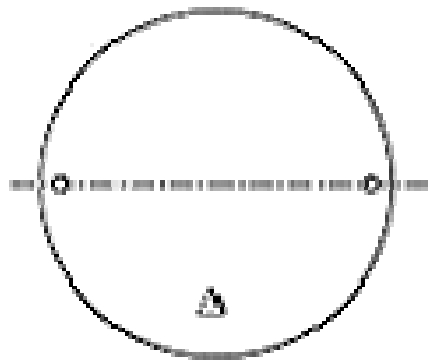
Advanced problem solving (GP)



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Advanced problem solving (GP)

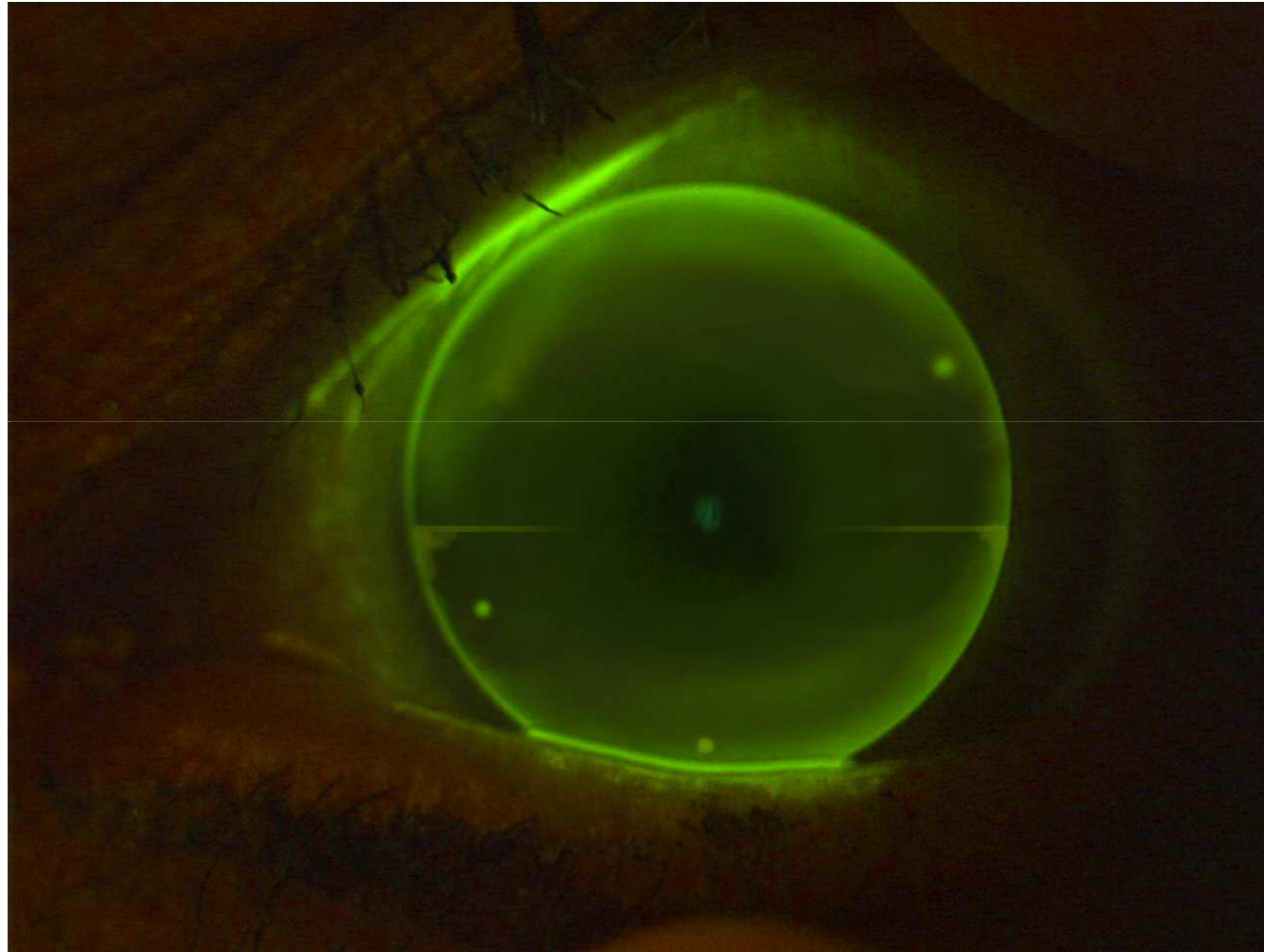
- Rotation of segment
 - Off-set prism axis (not in 270°)
 - Off-set segment axis



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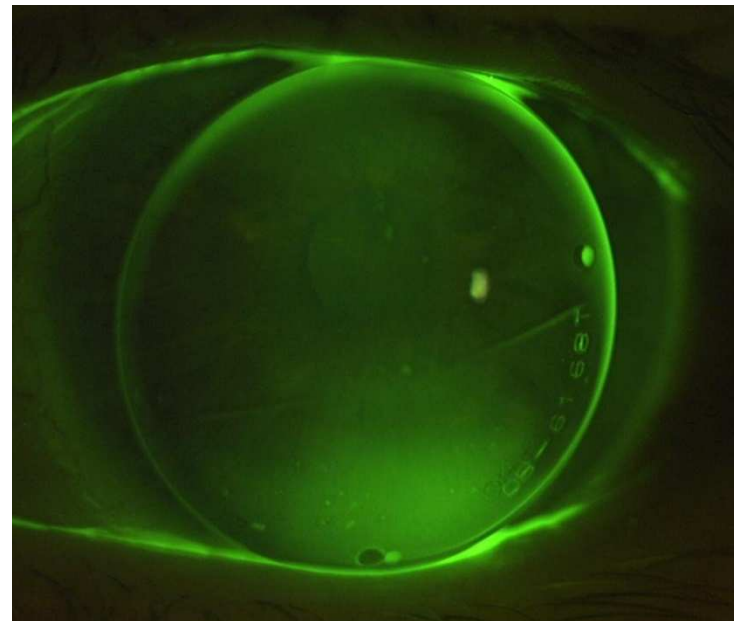
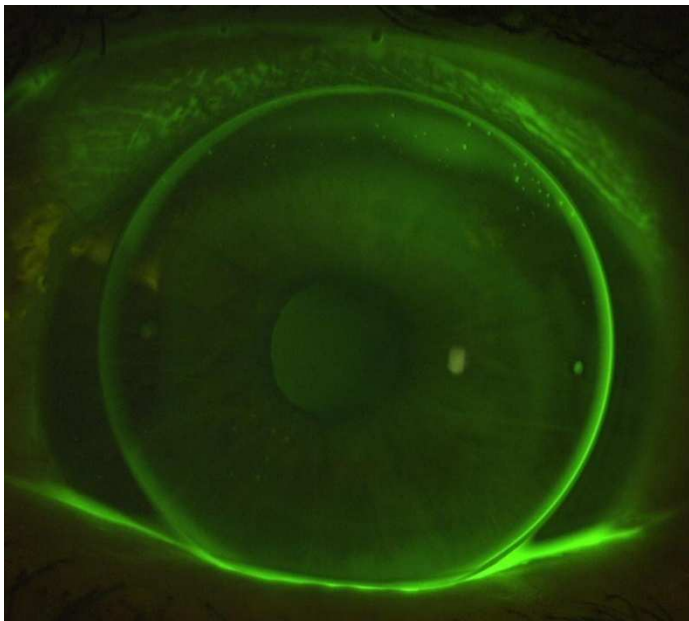
Advanced problem solving (GP)



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Advanced problem solving (GP)

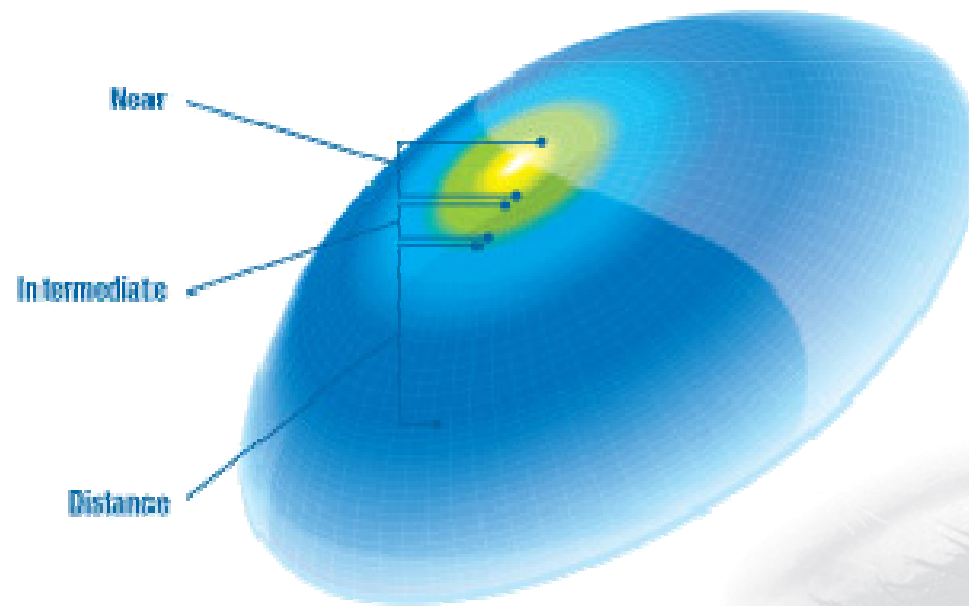
- Segment slides underneath the lower lid
 - Truncation
 - Shelf



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Disposable contact lenses

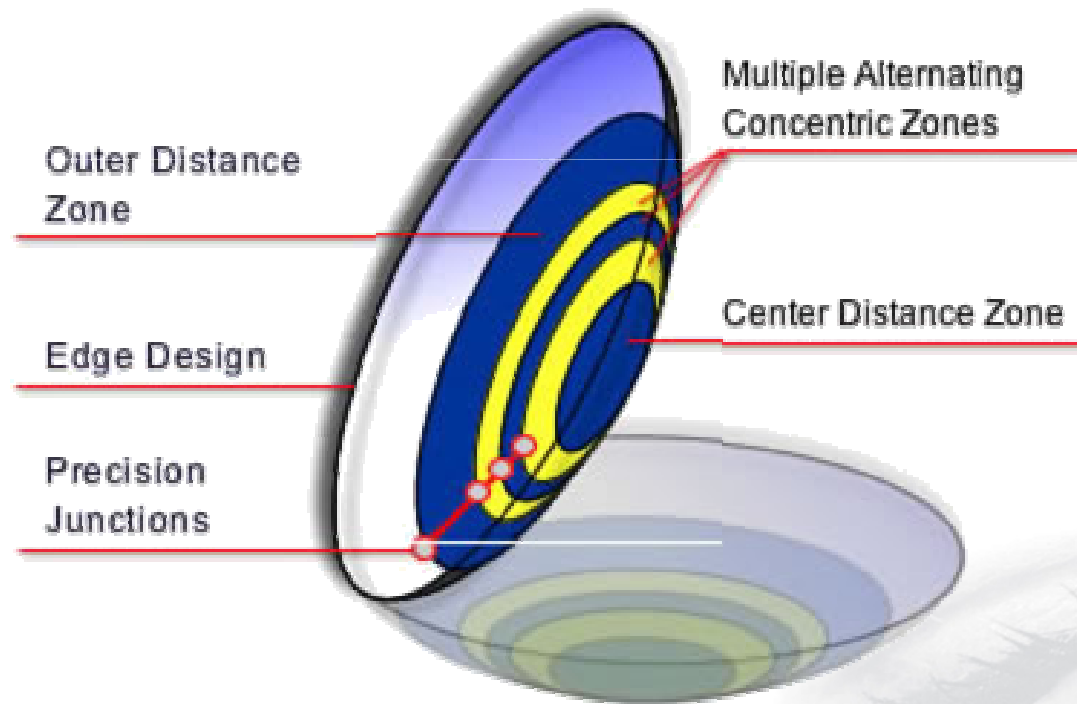
- Near central, with degressive power changes (Focus ProgressivTM, Purevision MultifocalTM, etc)



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Disposable contact lenses

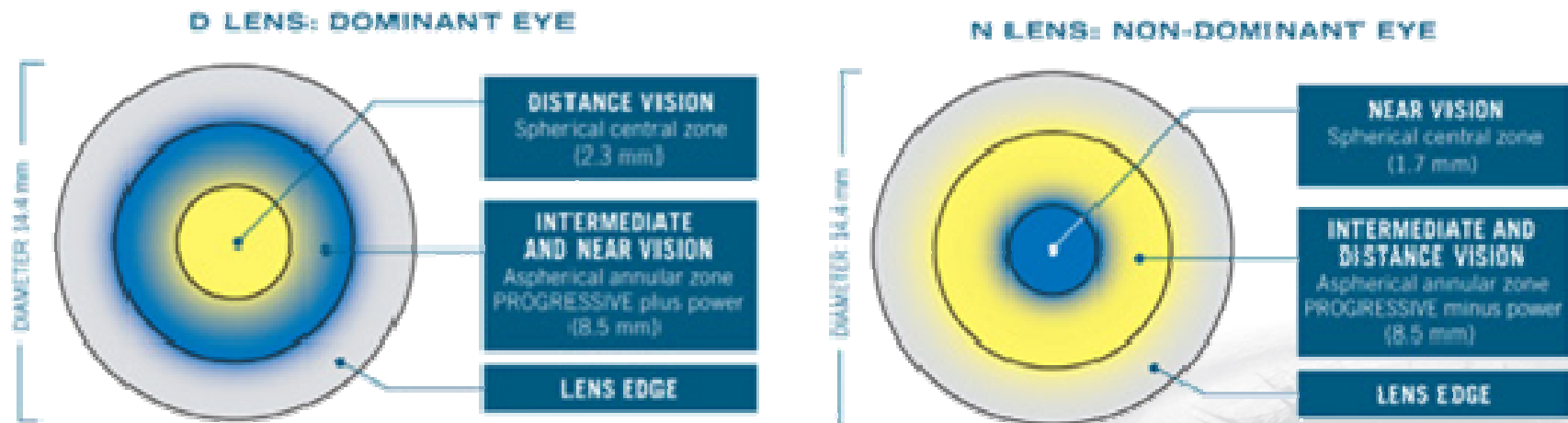
- Distance central, multiple concentric rings (Acuvue Bifokal™)



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Disposable contact lenses

- Combination of distance and near central, with degressive or progressive Design (Proclear Multifokal™ System)



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Disposable: Golden rule

- You need to know the advantages and disadvantages of your used systems
- Play with the different available CL-designs on the market
 - DC / multifocal on dominant eye
 - NC / bifocal on non-dominant eye

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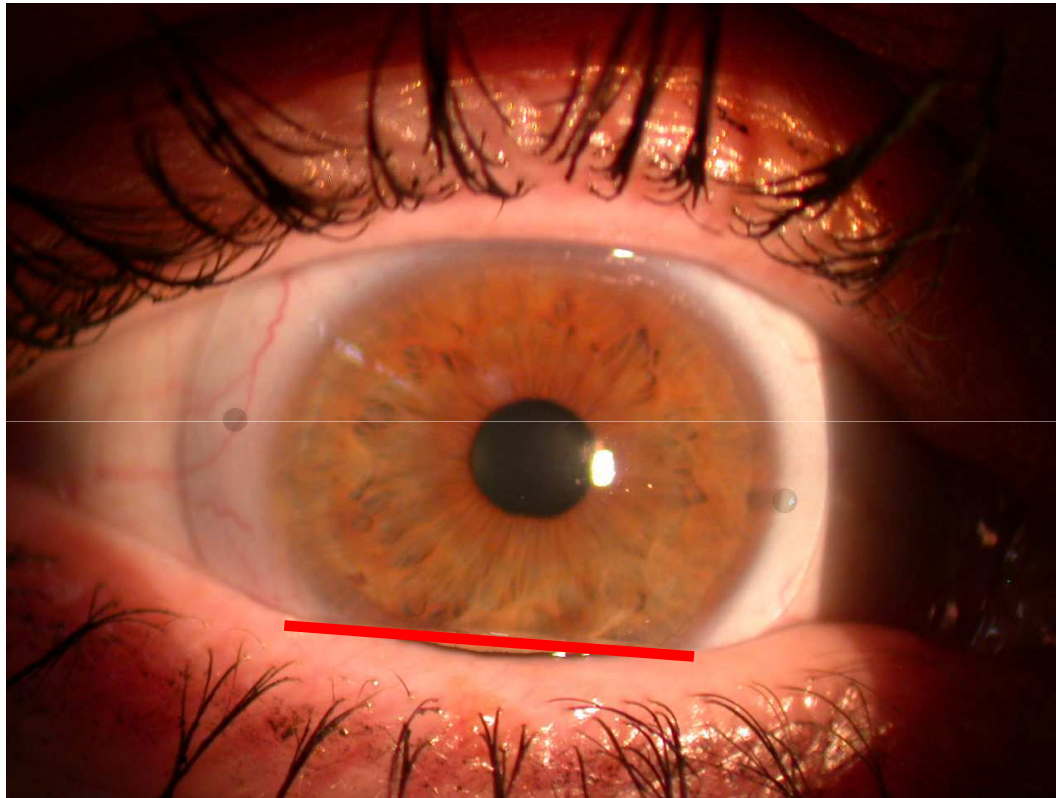
Disposable: Golden rule

- Excellent centering needed
- Assess vision binocularly, under normal light condition, without phoropter
- Since 2008 Proclear Multifocal™ in Astigmatic Design available

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Translating Soft-CL (Triton™)



- Manufacturer Gelflex, Australia

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Translating Soft-CL (Triton™)



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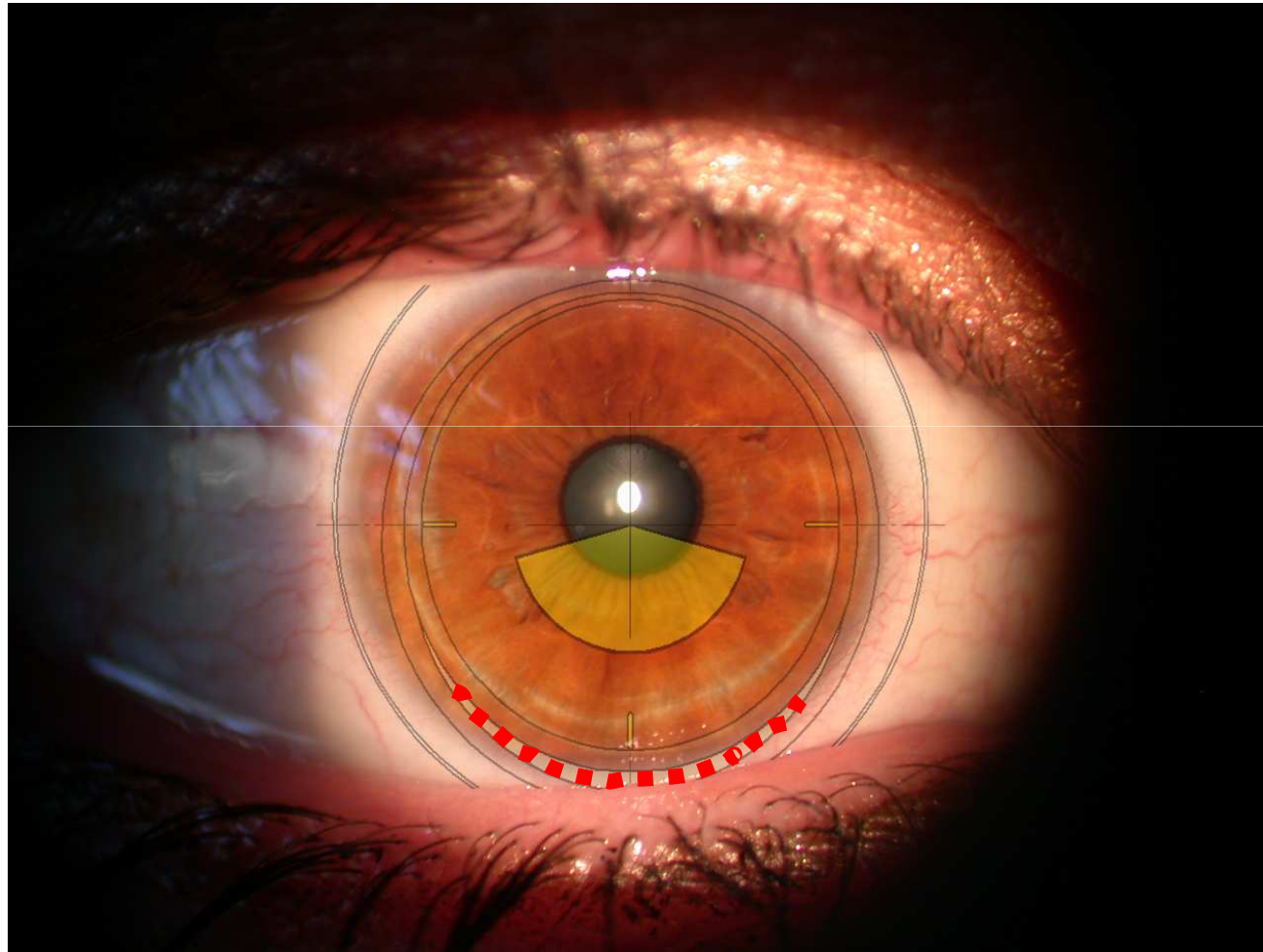
Transl. Soft (BYO Royal™)

- Translating Design from Procornea, Netherlands
- Indication is given as by the Triton™, but is distinguished by a more comfortable Design in the area of the lower lid

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Transl. Soft (BYO Royal™)



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The Future is Now!

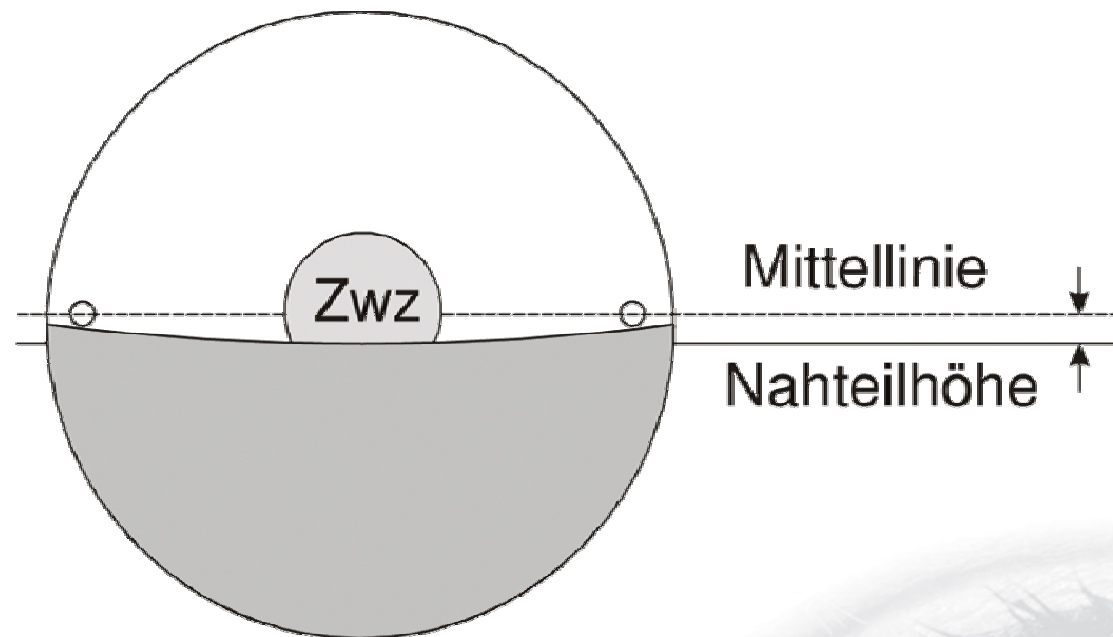
- Siliconhydrogel, individual contact lenses in 3month or 6month replacement schedule
 - Defintive™ Material, Contamac
- Orthokeratology
 - CRT Multifokal™ (Paragon)
 - Nypon Mulftifokal™

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The Future is Now!

- Translating-Simultaneous Design
 - (Falco Kontaktlinsen BA, Switzerland)



Zwz = Zwischenzone

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