

**Ablationsprofile
Mythen und Realität**

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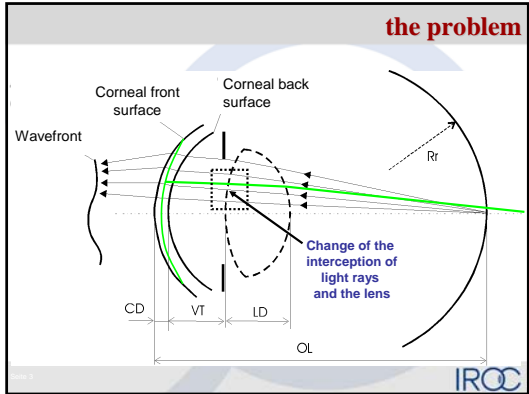
Primary goal of refractive surgery

1. To correct for the refractive error
2. Do not change the optical performance of the eye

Why?

Neuronal processing in the visual cortex matches the optical performance of the eye and takes years to change

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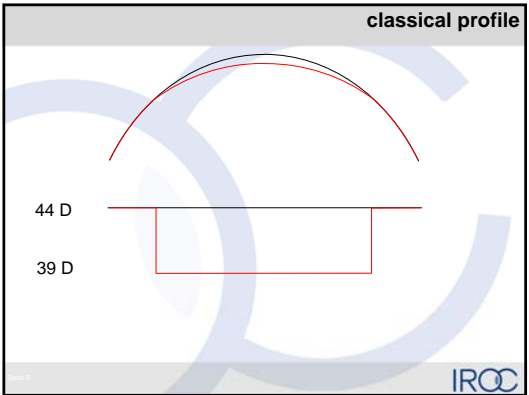
Theoretical optics

Can the aberrations of the entire eye be corrected at the cornea only?

No

**But all aberrations originating from the cornea can !
especially those that we created**

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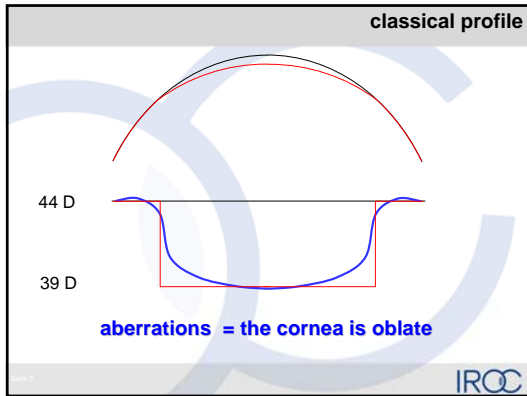
classical profile

UVA 20/20

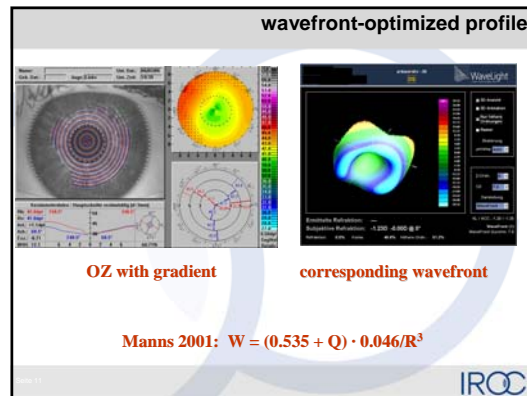
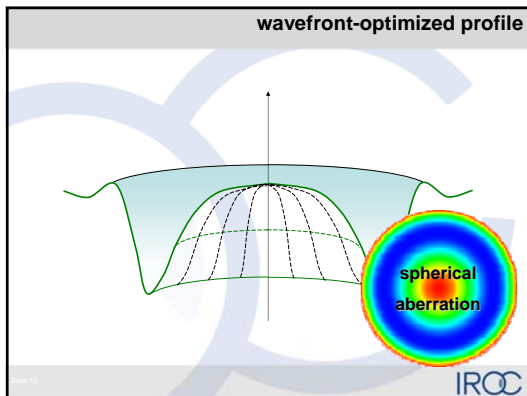
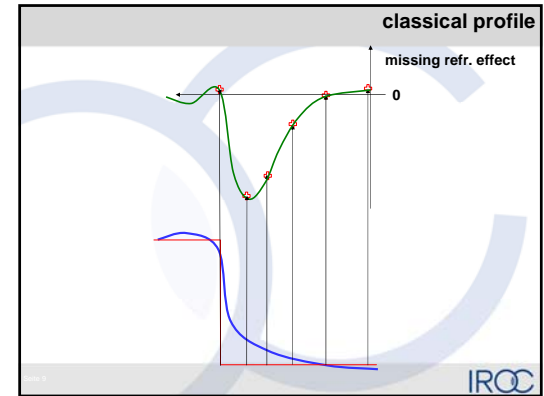
severe halos

aberrations

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- classical profile
- reasons for the induced aberrations**
- geometrical reduction of fluence
 - reflection of UV
 - biomechanical effects
 - healing
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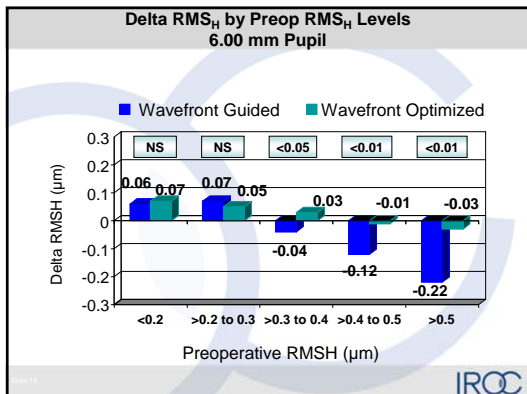
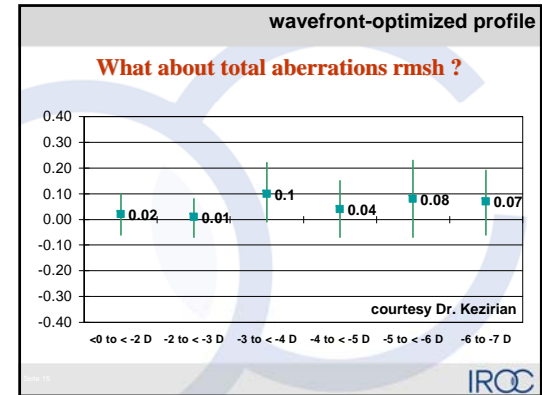
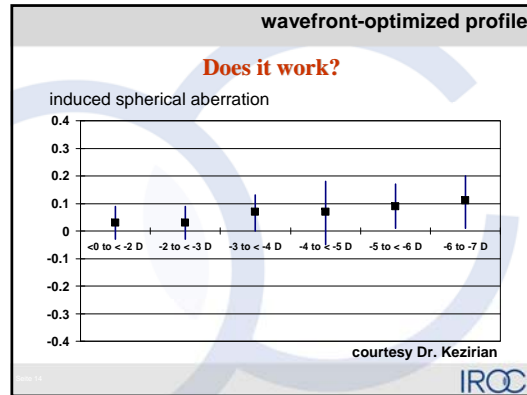
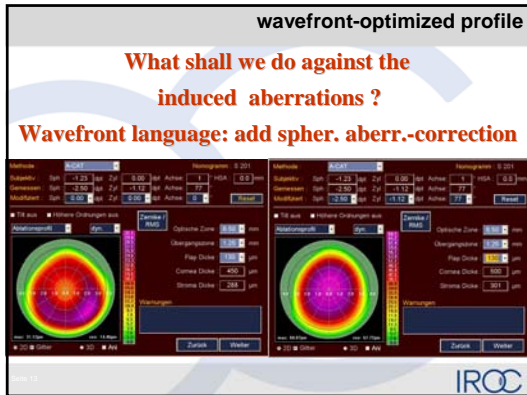


wavefront-optimized profile

Design of the wavefront-optimized profile

In addition to the sphero-cylindrical correction, the induced spherical aberration is compensated

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your laser in accordance with section 502(a) of the act. All promotion and advertising for these devices must include the following information on indications, risks and benefits:

j. Although the WaveScan Wavefront® System measures the refractive error and wavefront aberrations of the human eyes, including myopia, hyperopia, astigmatism, coma, spherical aberration, trefoil, and other higher order aberrations through sixth order, in the clinical study for this PMA, the average higher order aberration increased after CustomVue™ treatment.

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- Conclusions**
- 1. The wavefront-optimized profile corrects the refractive error only.**
 - 2. The wavefront-optimized profile requires minimal neuronal processing post-op.**
 - 3. Eyes with a poor optical performance (rmsh>0.3μm) and high VA (>20/16) may benefit from wavefront-guided treatment.**
 - 4. This subgroup represents only 5% or less of the population of a refractive surgery practice.**
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