

Exceptional Pulse Control and Placement ^[1]

Footnotes:

References

* As compared to conventional PRK.

+ The results presented in this section are from a prospective, non-randomized study of 230 eyes that had myopia with or without astigmatism and that were treated with topography-guided LASIK with the ALLEGRETTO WAVE[®] Eye-Q Excimer Laser System. Eyes had nearsightedness up to -9 D and astigmatism up to 6 D.

? Pentacam is a trademark of OCULUS Optikgeräte GmbH.

1. Data on File / WaveLight[®] EX500 Excimer Laser User Manual.
2. Mrochen M, Donitzky C, Wüllner C, Löffler J. Wavefront Optimized[®] ablation profiles: theoretical background. J Cataract Refract Surg. 2004;30:775-785.
3. Kanellopoulos AJ, Binder PS. Management of corneal ectasia after LASIK with combined, same-day, topography-guided partial transepithelial PRK and collagen cross-linking: the Athens Protocol. J Refract Surg. 2011;27(5):323-331.
4. Coskunseven E, Jankov MR, Grentzelos MA, et al. Topography-guided transepithelial PRK after intracorneal ring segments implantation and corneal collagen CXL in a three-step procedure for keratoconus. J Refract Surg. 2013;29(1):54-58.
5. Anera RG, et al. Changes in corneal asphericity after laser refractive surgery, including reflection losses and nonnormal incidence upon the anterior cornea. Opt Lett. 2003;28:417-419.
6. Cummings A. Innovations in excimer laser refractive technology – focus on the WaveLight[®] EX500 Excimer Laser System. Eur Ophthalmic Rev. 2010;4:44-46.
7. Data on File / WaveLight[®] FS200 Femtosecond Laser User Manual.
8. Stulting RD, Fant BS. Results of topography-guided laser in situ keratomileusis custom ablation treatment with a refractive excimer laser. J Cataract Refract Surg. 2016;42;11-18.
9. PERS - Declaration of Conformity for WaveLight EX500 (Nov 2017)
10. Procedure Manual EX500 (1016) rev04 2017-02-27
11. Analysis of ethanol effects on corneal epithelium PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/23674759> ^[2]
12. Epi-LASIK: comparative histological evaluation of mechanical and alcohol-assisted epithelial separation PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/?term=Epi-LASIK%3A+comparative+histo...> ^[3]
13. Single-Step Transepithelial PRK vs Alcohol-Assisted PRK in Myopia and Compound Myopic Astigmatism Correction PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/?term=3%09Single-Step+Transepithelial+PRK+vs+Alcohol-Assisted+PRK+in+Myopia+and+Compound+Myopic+Astigmatism+Correction> ^[4]

Tab:

PerfectPulse Technology ^[5]

Designed to maintain the cornea's natural asphericity, preserve image quality, and prevent visual disturbances¹



Featuring¹:

- Enhanced repetition rate of 500 Hz
- Small, Gaussian beam profile
- Smart energy control
- Closed loop beam path
- Compensation for cosine effect
- True optical zones
- Proprietary eye tracking

Precise Pulse Placement ^[6]

Exceptional pulse placement – from generation to eye contact¹



Monitors and maintains precise parameters¹:

- Z-axis alignment
- Cross-line projector
- Customized centration, cyclorotational alignment
- NeuroTrack technology
- Multi-spatial eye tracking

Source URL: <https://www.wavelight.de/node/14521>

Links

[1] <https://www.wavelight.de/node/14521>

[2] <https://www.ncbi.nlm.nih.gov/pubmed/23674759>

[3] <https://www.ncbi.nlm.nih.gov/pubmed/?term=Epi-LASIK%3A+comparative+histological+evaluation+of+mechanical+and+alcohol-assisted+epithelial+separation>

[4] <https://www.ncbi.nlm.nih.gov/pubmed/?term=3>

[5] <https://www.wavelight.de/produkte-infos/wavelightr-ex500-excimer-laser/exceptional-pulse-control-and-placement#tab-1>

[6] <https://www.wavelight.de/produkte-infos/wavelightr-ex500-excimer-laser/exceptional-pulse-control-and-placement#tab-2>