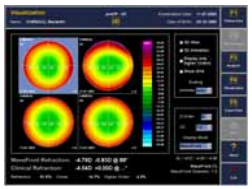
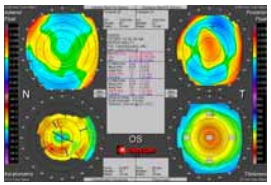
“Preparing for LASIK: basic steps for informed consent and refractive error, cornea, systemic and wavefront measurements for safer and better results”

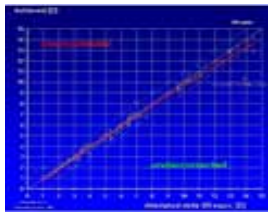
Giannis Agapitos DO, Mary Chalikia DO, Marianthi Chiridou DO, Nadia Daniil RN, Sophia Bourdou RN, Lawrence Pe MD, and A. John Kanellopoulos MD

From the Laservision.gr Institute, Athens, GREECE and the NYU Medical School, New York, NY, USA

Purpose: To describe our treatment methodology for LASIK patients, an essential parameter in the quality of our services.
Setting / Venue: Cornea, External Diseases, Refractive surgery practice in Athens, Greece
Methodology
Our approach to a LASIK patient is highlighted by 3-4 steps:
1-Efficient pre-op evaluation, 2-Informed consent 3- Maximize laser room parameters and conditions 4- Close up post-op care.
1: Initially a detailed ocular and medical history is taken, eliciting and any conditions may need special attention. This is followed by a comprehensive eye examination, which includes refraction (manifest, cycloplegic and a monovision trial if necessary), tonometry and a detailed indirect dilated funduscopy. We measure corneal thickness with both ultrasound and optical pachymetry to ensure that enough tissue is available for the treatment (We use a 270 micron “floor” for the patient residual stroma, and 420 micron “floor” for the total cornea left following the procedure). We perform corneal topography with both the Allegretto Topolyzer™ and the Obrscan II™ to screen out for keratoconus and other corneal irregularities (MDF dystrophy, dry eye e.t.c.). We perform endothelial cell count and optical biometry (IOLMaster™) as added measure. Wavefront measurements are obtained in all our patients to select those that may benefit from a customized ablation and to serve as a baseline evaluation of potential change with the procedure.
We have been involved with customized ablations (standard prolate, wavefront guided, topography-guided, and Q value adjusted treatments) since 2001. (Data presented in numerous past ESCRS meetings) In this regard we carefully select what type of treatment the patient will benefit from the most.
It is essential take into account the patient’s occupational needs, frequent activities, motivation in order to undergo the procedure and make adjustments accordingly.
2: Preoperative counselling and informed consent is done by both the surgeon and the staff. This exchange is further facilitated with the use of printed and videotaped material to make certain that the patient understands the procedure and has realistic expectations. The patient confirms that he/she fully comprehends the procedure and accepts that the methodology and potential risks. The patient’s understanding and consent to the procedure is documented in the chart.
3: Laser room conditions are strictly kept to 19-21 degrees Celcius and under 40% humidity throughout the year. External conditions in Athens span between -2 and + 40 degrees Celcius in temperature and 30% to 85% of relative humidity. The excimer (we currently use the **Wavelight Eye-Q laser** ;0.9mm flying spot, 400Hz, active Q-value correction) is calibrated daily, as well as in weeks that the center is not performing LASIK cases. All instruments in the procedure are disposable. (We utilize the Moria M2 130 and 90 micron disposable microkeratome heads). All data are evaluated by ALL optometric staff and the surgeon, in order to avoid mistakes.
4: Patients are seen at regular intervals in the postoperative period and all the preoperative measurements are repeated on the 3 month.
Discussion: LASIK, is the most popular laser vision correction worldwide. There are certain benefits, limitations and risks. Benefits and risks should be explained directly and clearly with simple words, avoiding medical terminology. Not everyone is a suitable candidate for LASIK. There are certain criteria used to select the suitable patients such as age, stability of refraction, absence of ocular and certain systemic conditions that may contraindicate the surgery. We attempt to maximize benefits and minimize risks in a highly reproducible and standardized fashion. Customized treatment technology offers more accurate measurements for more accurate surgical result with the so -called Wavefront-guided and Topography-guided treatments. With careful patients selection we rarely encounter complications and have been able manage them favorably. With this protocol we are able to improve our evaluation for LASIK patients and provide them with better information which will later translate to better satisfaction with the procedure.







www.brilliantvision.com
Mesogeio 2 & Vas. Sofias av
Athens Tower Building B’
11527 Athens GREECE
Tel.+30 210 7472777
Fax. +30 210 7472789