

# Enhancing Cataract Surgery Outcomes

## OPD-Scan III provides spot-on keratometry readings

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**AN INTERVIEW WITH EDWARD HEDAYA, MD**

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**D**iligent pre-operative planning substantially increases the likelihood of satisfying patient expectations and achieving optimal results after surgery. In cataract surgery, because laser biometry measures axial length, anterior chamber depth, and lens thickness accurately, gathering and interpreting accurate K readings is the most critical variable in pre-operative planning. However, due to tear film variability, K readings are frequently inconsistent. Therefore, a device that allows doctors to review for consistent, reliable measurements is vital to successful surgery. Edward Hedaya, MD, has found the OPD-Scan III to be powerful for obtaining great readings, and also in managing patient expectations and earning patient trust.

### **Many Devices, Many Results**

A growing number of devices that measure K values are now on the market, but the method of data collection varies greatly. Each diagnostic device has its own particular data capture methodology and outcome for keratometry, corneal power, astigmatism magnitude, and axis. The results of each measuring device are not interchangeable, nor are they necessarily complementary. Further confounding the situation, some studies have shown high levels of variability in results obtained from the same device. If one reviews the mechanism of data acquisition, this variability becomes more understandable.

An important factor in assessing the device(s) you own or plan to acquire is the ability to optimize your surgical constant. Because every device measures the cornea at different diameters, consistency, and spatial resolution, using one superior device for data collection prevents variability and helps to achieve the consistency that is necessary for optimization.

### **Fast, Reliable Data**

The OPD-Scan III is an empowering tool in pre-operative planning for cataract surgery, as surgeons must target more than refractive emmetropia to augment satisfaction. In seconds, the OPD-Scan III collects and analyzes an immense repository of relevant ocular refractive data that can be viewed in a variety of customizable overview summaries based on each patient's particular needs. Doctors can achieve superior, targeted visual acuity by using properly selected surgical formulas, which are based on selecting the most accurate data collected by the OPD-Scan III.

The OPD-Scan III also has an alignment indicator to monitor that the patient is aligned properly to optimize image selection. "In our clinic, we've found that we can obtain the most consistent measurements by studying the placido disc topographic measurements. The OPD-Scan III consistently measures 359 points at a 3.0-mm diameter, regardless of the corneal curvature

radius," explains Dr. Hedaya. "Not only does it give us more consistent data sets, but also outstanding resolution for power and axis determinations."

### Optimize Results

Diagnostic equipment is highly important, but how you use it is equally important. The OPD-Scan III takes consistent images of eyes, and more importantly, allows the user to view the placido images to determine what images are optimal for usage in calculations. It also provides tools essential for patient education and communication in the pre-operative planning process. This results in enhanced outcomes and an educated patient with more concrete expectations.

### Obtain Strong Images

The tear air interface is the most powerful refractive element in the eye. Obtaining an ideal image is impossible if the surface of the eye is not optimized. The placido disc images (and resultant topography) can reveal inconsistencies or imperfections that would need treatment to prepare the eye for re-imaging. "If we don't acquire sufficient images on the first attempt, we give the patient a preservative-free lubricant every 5 minutes for half an hour; then take more images. If the images are pristine, I use them; if not, we put the patient on a corrective therapy plan, such as Restasis (cyclosporine ophthalmic emulsion 0.05%), omega-3 fatty acids, plugs, and so on, depending on the diagnosis," explains Dr. Hedaya.

Excellent placido images are a mainstay to obtain proper data for pre-operative planning. "You want the keratometry readings to be 0.1 to 0.2 diopters of each other, as well as very close in axis," explains Dr. Hedaya. He finds it essential to use a spreadsheet to review collected K data (axis and power) after selecting the best placido images. A minimum of three scans are used in each eye to obtain an average of axis and power used in the Holladay II formulas; outliers are thrown out. He says the extra two minutes to enter and review the data makes a significant difference in the spherical equivalent outcomes. His spherical equivalent results at 92% +/- 0.5 diopters.



### Manage Patient Expectations

A sometimes-neglected opportunity in the pre-operative planning process is managing patient concerns and expectations. The OPD-Scan III is a great communication tool because surgeons can demonstrate to patients that they understand what they're seeing, which helps patients feel more comfortable with the doctor and less fearful of what they're experiencing.

"Some surgeons may be afraid to tell patients what symptoms they may experience after surgery because they may be fearful that

patients will opt out of surgery, but the truth is the opposite. If you don't tell patients what to expect, you may have end up with an unhappy patient."

"We get multiple OPD-Scan III readings on every patient. We get them at pre-op, post-op, and then when needed. I explain to patients what's going on." After surgery, the OPD-Scan III has the simulated vision feature to remind patients of what their vision used to be, which is a great way to earn the trust and appreciation of forgetful patients. "After 6 months of better vision, they often forget how bad their vision used to be," says Dr. Hedaya.

### Successful Surgical Outcomes

Successful cataract surgery is a result of superior surgical skill and proper pre-surgery planning and procedures. The powerfully designed OPD-Scan III allows one to verify the pre-planning process by providing consistent, reliable data collection, as well as great patient education opportunities to help ensure the best surgical outcomes for your patients. ●

