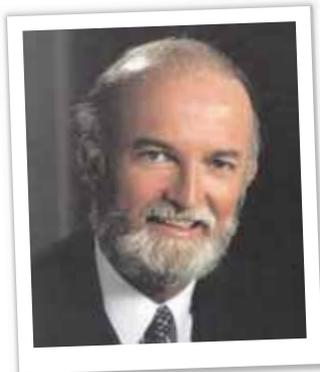


# James J. Salz, MD

Dr. Salz describes how his experience with early and new technologies influences the way he performs refractive surgery.



## How did your early experience with RK shape your philosophy of refractive surgery?

RK was the first popular refractive surgery in the US, and, as such, it was surrounded by a lot of hype. Because it was a completely new and controversial procedure, the National Eye Institute funded a study, the Prospective Evaluation of Radial Keratotomy (PERK), to evaluate its safety. I was the PERK surgeon at the University of Southern California in Los Angeles. The study showed that most patients achieved good results, with a high percentage of them seeing 20/40, and ultimately established RK as a safe, legitimate procedure. The investigators' ability to follow RK patients and track their long-term outcomes also confirmed the procedure's Achilles' heel: a progressive hyperopic shift. This phenomenon was first described by Michael R. Deitz, MD, who was then a clinical professor at the University of Missouri in Kansas City.

The PERK study showed that we need to be aware of the long-term consequences of any refractive procedure, even if it appears to provide good short-term results.

## Your policy is to perform refractive surgery on one eye at a time. How do your patients react when you tell them?

Most are relieved, actually. I have gained more patients because of this philosophy than I have lost. I understand that the risk of developing complications after bilateral surgery is low, and I do not have an issue with other surgeons treating both eyes as long as patients are fully informed of the potential risks. Bilateral refractive surgery is certainly not below the standard of care. I am not comfortable with this approach, however.

I think it is important for patients to experience what it is like to look out of an eye that has a flattened central cornea and to decide if they like the result before they proceed with a second surgery. They may not be satisfied with their night vision or contrast sensitivity. Over the years, a few of my patients have never returned for surgery on their second eye and continue to wear one contact lens. From my perspec-

tive, they achieved a perfect result, but they disliked some subjective aspect of the vision in their operated eye. Interestingly, I treated most of those patients 3 years ago before I began offering wavefront-guided surgery. Since then, everyone has returned for surgery on their second eye.

## What are the advantages of wavefront-guided laser correction?

For me, wavefront technology is an educational tool that helps me explain the aberrations of the human optical system to my patients. I can show them a wavefront map of their preoperative lower- and higher-order aberrations and explain how the surgery is likely to change these factors. This technology also lets me show patients who are having visual difficulties after surgery, especially those who were treated before wavefront testing was available, what kind of aberration is affecting their vision.

I obtain a wavefront map for every refractive patient in order to evaluate the degree of higher-order aberrations, obtain an excellent autorefraction, and explain the potential advantages of a wavefront-guided treatment. I perform wavefront-guided procedures on 70% of my patients, because I believe that studies have shown this approach improves their chance of seeing 20/20 and lowers the likelihood they will experience night vision disturbances.

## Have any recent studies influenced your selection of medications for cataract or refractive surgery patients?

I have been impressed by the clinical and laboratory studies that show that pre-dosing cataract patients with non-steroidal anti-inflammatory and new anti-infective drugs may reduce their risk of developing postoperative cystoid macular edema and endophthalmitis.<sup>1-3</sup> I have added both kinds of drugs to my preoperative regimen.

## How do you relax when you are not working?

I enjoy traveling with my wife, Judy (our most recent trip was a cruise to the Mexican Riviera), as well as playing golf, skiing, and watching USC football and Duke basketball. Last year, I started teaching my 3.5-year-old grandson Matthew to ski. Within an hour of practicing on a short T-bar run, he was ready to go up a long chair lift. When you are young and close to the ground, you tend to have no fear. ■

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