

Issue 108 Fall 2005







The attendance at the 4th Annual San Francisco Cornea, Cataract, and Refractive Surgery Symposium held earlier this year reached an all-time high. PVI affiliated doctors Eliot Kaplan (Mill Valley, CA) and Gina Day (Larkspur, CA) [left] during the break. Dr. Steven Schallhorn [middle] of the U.S. Naval Medical Center concludes that large pupils are not a risk factor for night-time glare. Dr. Barry Seibel (Director, Cataract and lens surgery, PVI) and Dr. George Waring (Editor-In-Chief, Journal of Refractive Surgery) [right] discuss phakic IOL designs.

Many options for good vision are now available to patients of all ages

Highlights of the 4th Annual San Francisco Cornea, Cataract, and Refractive Surgery Symposium

Both optometrists and ophthalmologists from the US and abroad attended the one-of-a-kind symposium on the West Coast, covering the advances in Cornea, Cataract, and Refractive Surgery. World-renowned faculty presented clinical challenges and discussed the many different surgical options now available to our patients with both simple and complex refractive problems.

Dr. Ronald Krueger (Cleveland Clinic Foundation, Cleveland, OH) presented clinical experience using the wavefront map to diagnose and treat highly aberrated eyes, such as detecting early keratoconus, for example, diagnosing early cataracts, and treating symptomatic patients following refractive surgery. In these patients, their symptoms often correlate with the objective findings on the wavefront scan and can, therefore, be helped with either the wavefront-guided corneal treatment or cataract surgery.

Dr. Steven Schallhorn (U.S. Naval Medical Center, San Diego, CA) analyzed the relationship between pupil size and the postoperative symptoms of glare and haloes using forward stepwise regression analysis. He found that the size of the pupil did not correlate with the postoperative night-time symptoms after LASIK. Dr. Schallhorn also presented the U.S. Navy data comparing the outcomes of wavefront-guided LASIK and PRK. He found that both the refractive outcomes and the quality of vision were similar in the two procedures.

Dr. Ella Faktorovich (Pacific Vision Institute, San Francisco, CA) compared the LASIK outcomes with Intralase FS laser vs. mechanical microkeratome). Both uncorrected and best-corrected visual acuity were better in the Intralase group. Fewer eyes had the signs of dryness in the Intralase group as well. She also presented a flow chart of adjusting laser settings and techniques to Gontinued with Vision Options on page 5

An 89-year old patient undergoes LASIK at PVI



Mr. Kurt Orban is one week after his LASIK procedure, playing against a tennis pro

Patient History: 89-year old avid tennis player with slowly deteriorating vision.

Preoperative examination:

UCVA 20/50 OD and

20/60 OS. MRx +3.25
2.50x95 OD and +1.75
1.75x62 OS. BSCVA

30/30 OD and 20/60 OS.

Cataracts OU.

Procedure: Phacoemulsifi-

cation cataract extraction with intraocular lens placement OU. Postoperative UCVA 20/20 OD and 20/50 OS. MRx plano OD and plano-2.25x82 OS. BSCVA is 20/20- OS. Patient wants better UCVA OS. Treated with LASIK OS

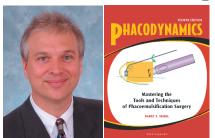
Outcome: UCVA 20/20- OS with plano refraction

Discussion: Combined lens and corneal surgery can improve vision in the elderly patient. Age should not limit surgical options for excellent uncorrected vision.

Clinical News & Views

The Next Chapter in Presbyopic IOL solutions:

The Multifocal Apodized Diffractive/Refractive RESTOR



Author: Barry Seibel, M.D., Director of Cataract and Lens Surgery, Pacific Vision Institute. Dr. Seibel is the author of Phacodynamics, a best-selling textbook on cataract surgery that is a frequently quoted international teaching reference.

The Alcon RESTOR IOL is now available as a potential choice for our patients undergoing cataract and lens surgery. I was among the first group of surgeons to be credentialed nationally in this new technology and the first surgeon in California to have implanted this lens in patients undergoing cataract surgery. In fact, my first patient was a 59-year old San Francisco artist.

The RESTOR IOL was very well explained by Alcon's Paul Soye, PhD, whom I would like to credit with much of the following information. The RESTOR was designed to address many of the issues surrounding previous presbyopic IOLs such as the Array zonal refractive IOL as well as the Eyeonics Crystalens accommodating IOL. The RESTOR utilizes a central 3.6mm zone of concentric bifocal diffractive rings surrounded by a monofocal refractive annulus set for distance vision. By comparison, the Array (and more recent version, the Rezoom), have a central 2.2 mm distance vision zone sur-

rounded by 4 rings of alternating distance and near zones.

The Array design therefore means that a patient attempting to read under photopic reading light conditions will have a small pupil that might preclude light from the first near vision ring, while only allowing light through the central distance vision zone. Many Array patients have therefore learned to actually dim the lights for reading to produce a mesopic pupil that would allow light through the more peripheral near vision rings. As the pupil dilates past 3mm, about 50% of available light energy is directed toward near vision while the other 50% is directed toward distance vision. Therefore, as the pupil dilates fully in dark mesopic conditions, 50% of light energy is relatively wasted due to the fact that essentially nobody reads in the dark; distance vision is correspondingly compromised.

A diffractive optic design, like a refractive design, has both zones of power as well as optical discontinuities. However, unlike a refractive design, the zone boundaries are placed to minimize interference patterns whereby the optical path length increases by 1 wavelength (nominally 550 nm), producing a phase discontinuity with two images. Therefore, light from each zone focuses both near and distant images, and phase interference is reduced. A pure diffractive IOL, however, does share the same relative liability as a zonal refractive IOL in that light energy is divided between distance and near images with a mesopic pupil, therefore compromising night distance vision.

In order to enhance night vision, the RESTOR utiliz-

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NEWS at PVI

- Dr. Dean Edell ABC Chanel 7 and KGO Newstalk Radio interview Dr. Faktorovich about the safety and efficacy of Intacs for treatment of keratoconus.
- Ocular Surgery News and Ophthalmology Times provide in-depth coverage of the 4th Annual San Francisco Cornea, Cataract, and Refractive Surgery Symposium.
- Ocular Surgery News interviews Dr. Faktorovich and publishes her results in the article "Intralase techniques can decrease learning curve."
- Dr.Faktorovich presents "Comparison of LASIK outcomes with Intralase FS laser vs. Hansatome microkeratome" at the American Society of Cataract and Refractive Surgery in Washington, DC.
- Pacific Vision Institute becomes the first center in the Bay Area to treat presbyopia with RESTOR intraocular lens.
- Grand Rounds "Refractive surgery options for presbyopic patients" held on June 23rd at PVI. Over 70 Bay Area optometrists attended.
- Pacific Vision Institute is selected by Bechtel Employee Club and Alta Bates Medical Center to be the Laser Vision Correction provider of choice for their employees.
- Ophthalmologists/Optometrists/Family/Staff who recently had LASIK at PVI with Dr.Faktorovich: Dr. Christina Chun (Novato), Jeff Harris (Dr. Joe Torres, San Francisco, CA), Eric Breedon (Dr. Marc Lester, San Francisco, CA), Roger Chew (Dr.Stacie Low, Taraval Eye Care, San Francisco, CA), Darryl Louie (Dr. Kyna Wong, Taraval Eye Care, San Francisco, CA), Carly Vergara (Dr. Isaac Vergara, Fresno, CA), Kevin Diep (Dr. Terrance Chan, San Francisco, CA), John Cerbatos (Dr. Chester Quan, San Francisco, CA), Janelle Pasigui (Dr. Sandra Lee, San Francisco, CA), Matthew Van Maren (Dr. Lassa Frank, San Rafael, CA), Lil Mah (Dr. Bradford Chang, San Francisco, CA), Kenneth Lee and Chrystine Lee (Dr. Scott Lee, San Francisco, CA), Judy Fong (Dr. Darren Lee, Redwood City, CA), Jennie Byrd (Dr. Bruce Mebine, San Francisco, CA), Mark Johnson (Dr. Monique Mai, Palo Alto, CA), Veronica Torres (Dr. Kenneth Owyang, Palo Alto, CA), Cindy Waananen (Dr. Robert Monetta, San Francisco, CA).
- PVI Top 5 dinner held on May12th, 2005 at the Chef's Table at Quince restaurant in San Francisco.

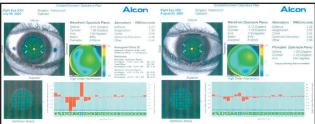
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es a combination design in which the central 3.6 mm of the IOL is diffractive (combination of distance and near vision power), while the remainder of the 6 mm optic is a distance vision monofocal lens. In addition to the outer region of the optic, mesopic pupil performance is further enhanced by the design of apodization, which has been used in microscopy and astronomy to enhance images by modifying the optical properties of a lens from the center to the periphery. In the case of the RESTOR, this translates into a gradual reduction of the step height of the diffractive rings from the center to the periphery, while maintaining the same ratio of height to width so as to maintain the same 4 diopter add (3.25 diopters at the spectacle plane). The larger step height at the center of the IOL divides light 50:50 between near and distance images, while the smaller step heights toward the periphery transfer progressively more light from distant images. This progressive weighting of distance light energy toward the periphery, coupled with the monofocal distance periphery, was designed to enhance night vision with a mesopic pupil relative to previous multifocal lens designs. Bear in mind that these step heights are quite subtle; the first step height is 1.3 microns, while the last outer ring has a height of 0.2 microns. Notwithstanding this weighting of distance vision with increasing pupil size, a substudy of RESTOR patients revealed their ability to read restaurant menus in dimly lit conditions.

...to be continued in the next issue of the PVI Newsletter.

An RK patient with poor quality of vision undergoes Advanced Wavefront LASIK at PVI



Higher order aberrations (red bars) before (left) and after (right) wavefront-guided LASIK. Significant reduction in higher order aberrations was observed as well as more even grid on the Hartmann-Shack image following LASIK.

Patient history: 38-year old Vietnamese woman s/p Radial Keratotomy (RK) in China 15 years ago. Patient complains of glare and haloes at night not helped by eyeglasses correcting mild residual myopic astigmatism.

Preoperative examination: UCVA: 20/60 OD and 20/70 OS. MRx: plano – 1.25 x 144 OD and plano – 1.25 x 174 OS. BSCVA: 20/25 OD and 20/30 OS. Six incision RK

in both eyes with mild optic zone decentration in the left eye

Procedure: Wavefront-guided LASIK with appropriate nomogram adjustments

Outcome: UCVA: 20/25 OD and 20/40 OS. MRx: 0.50-0.50x121 OD and 0.25-1.00x124 OS. BSCVA: 20/20 OD and 20/25 OS. Much improved quality of vision at night. Discussion: Wavefront-guided treatments can improve the quality of vision in patients with previous refractive surgery by significantly reducing higher order aberrations, especially spherical aberration and coma.

Role of Restasis in postoperative management of refractive surgery patients

Authors: Dr. Scott Lee, Emily Nosov, Dr. Ella Faktorovich

We have conducted a prospective study comparing safety and efficacy of Restasis (Cyclosporine A 0.02% ophthalmic solution) bid with lubricant control (Celluvisc) bid in the prevention of dry eye signs and symptoms following LASIK. Twenty patients in each group were age- and gender-matched. Restasis or Celluvisc were started post-operatively. Patients could supplement with Refresh Plus as needed. Patients were examined at weekly intervals for five weeks postoperatively. They were asked to rate their symptoms of dryness on both discrete scale (0 through 4) and continuous one (0 to 10 mm). Punctate keratopathy and tear break up time were also measured.

We observed no difference between Restasis and lubricant control group in either signs or symptoms of dryness following LASIK. Subjective symptoms peaked at one week postoperatively with mean dryness score of 4.77 +/- 2.8 (out of 10.0 on the continous scale) in the Restasis group and mean dryness score of 5.06 +/- 2.03 in the Celluvisc group. Both groups experienced nearly complete resolution of dryness symptoms by week 5 postoperatively. Mean dryness score was 2.73 +/- 1.41 in the Restasis group and 2.29 +/- 1.40 in the Celluvisc group. These scores were not significantly different from the preoperative scores.

In conclusion, patients with normal ocular surface preoperatively do not benefit from Restasis started postoperatively in terms of helping with signs and symptoms of dryness in the initial healing phases. Mean dryness scores were not high postoperatively and returned to preoperative levels by week 5. Studies are under way to determine if patients with significant ocular surface disturbance will benefit from Restasis started prior to LASIK. Comparison of Wavefront Aberrations following LASIK with Intralase FS laser vs. mechanical microkeratome

Authors: Emily Nosov (PVI Research Foundation Summer 2005 Fellow), Dr. Scott Lee, Dr. Gina Day, Dr. Ella Faktorovich.

We have retrospectively compared higher order aberrations at three months postoperatively in patients who underwent either wavefront or conventional LASIK with either Intralase FS laser or mechanical microkeratome. The patients were age- and refraction- matched. All data was analyzed at the 6.0-mm pupil diameter. SPSS statistical software was used for comparison with a student's T-test for independent samples. P-values < 0.05 were considered statistically significant.

Although the differences in higher order aberrations between the Intralase and mechanical microkeratome procedures were small, the eyes that underwent procedures with the mechanical microkeratome did show significantly greater amounts of higher order aberrations in both conventional and wavefront LASIK procedures. Higher order aberrations, especially coma and spherical aberrations, are correlated with night-time vision symptoms such as glare, haloes, and ghosting.

Table 1. Postoperative aberrations after Conventional LASIK with Intralase FS Laser vs. mechanical microkeratome

| | Intralase FS Laser | Mechanical Microkeratome | p-value |
|--------------------------------|--------------------|-----------------------------|---------|
| Total Higher Order Aberrations | 0.52 +/- 0.21 | 0.62 +/- 0.29 | 0.028* |
| Spherical Aberrations | 0.32 +/- 0.21 | 0.33 +/- 0.20 | 0.951 |
| Vertical Coma | 0.18 +/- 0.15 | 0.22 +/- 0.20 | 0.161 |
| Horizontal Coma | 0.18 +/- 0.13 | 0.26 +/- 0.26 | 0.027* |
| Trefoil | -0.02 +/- 0.11 | 0.02 +/- 0.19 | 0.175 |

Table 2. Postoperative aberrations after Wavefront LASIK with Intralase FS Laser vs. mechanical microkeratome

| | Intralase FS Laser | Mechanical Microkeratome | p-value |
|--------------------------------|--------------------|-----------------------------|---------|
| Total Higher Order Aberrations | 0.47 +/- 0.20 | 0.43 +/- 0.14 | 0.260 |
| Spherical Aberrations | 0.23 +/- 0.16 | 0.23 +/- 0.12 | 0.714 |
| Vertical Coma | 0.16 +/-0.13 | 0.24 +/- 0.20 | 0.042* |
| Horizontal Coma | 0.15 +/- 0.13 | 0.16 +/- 0.12 | 0.752 |
| Trefoil | -0.01 +/- 0.07 | 0.03 +/- 0.08 | 0.008* |

Table 3. Changes in aberrations after Wavefront LASIK with Intralase FS Laser vs. mechanical microkeratome

| | Intralase FS Laser | Mechanical Microkeratome | p-value |
|--------------------------------|--------------------|-----------------------------|---------|
| Total Higher Order Aberrations | 0.15 +/- 0.19 | 0.10 +/- 0.15 | 0.096 |
| Spherical Aberrations | 0.07 +/- 0.08 | 0.12 +/- 0.11 | 0.035* |
| Vertical Coma | 0.26 +/-0.17 | 0.20 +/- 0.15 | 0.067 |
| Horizontal Coma | 0.15 +/- 0.13 | 0.15 +/- 0.13 | 0.812 |
| Trefoil | 0.00 +/- 0.16 | 0.09 +/- 0.19 | 0.022* |

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maximize the outcomes with the Intralase.

Dr. Stephen McLeod (UCSF Medical School Department of Ophthalmology, San Francisco, CA) reviewed strategies to minimize the risk of infection during cataract surgery. He suggested that pretreatment with topical antibiotics prior to surgery does not reduce the risk of infection. Rather, it is the Betadine prep immediately preop, meticulous surgery, and postoperative antibiotics initiated after the surgery that reduce the risk of infection.

Dr. Lisa Battat (Everett and Hurite Ophthalmic Association, Pittsburgh, PA) evaluated dry eye therapies in both younger and older patients. She emphasized that decreased visual acuity, especially in the older patient, is often due to dry eyes with unstable tear film and decreased tear production. Once the dryness is treated, the visual acuity often improves. The treatment is multifactorial and includes omega-6 fatty acids and Restasis.

Dr. Robert Maloney (Maloney Vision Institute, Los Angeles, CA) entertained and enlightened the audience on how to achieve a memorable, positive experience for every patient in our practice. He inspired the doctors by his Seven Commandments – how to make each experience the patient has with our practices feel like a great movie hit with a happy ending.

Dr. I. Howard Fine (Oregon Health and Science University, Portland, OR) reviewed the new intraocular lens designs aimed at reducing higher order aberrations, correction of presbyopia, and easy insertion through minimal incisions. Excellent distance and near vision following cataract surgery was achieved in properly selected presbyopic patients.

Dr. George O. Waring (Editor-in-Chief, Journal of Refractive Surgery, Atlanta, GA) presented data on the safety and efficacy of different phakic IOL designs as well as indications for their placement in patients with very high myopia, hyperopia, and very thin or irregular corneas – patients who are not candidates for laser vision correction. More than 50% of highly myopic patients (-15D or greater) achieved 20/20 or better uncorrected vision, often better than their best-corrected vision preoperatively.

Dr. David F. Chang (Department of Ophthalmology, UCSF Medical Center, San Francisco, CA) reviewed strategies to ensure good cataract surgery outcomes in patients with weak lens zonules due to trauma and pseudoexfoliation, for examples. He recommended capsular tension rings in patients with relatively small areas of zonular dehiscence, intact posterior capsule, and minimal residual cortex. Capsular retractors are a better option for patients with large areas of zonular weakness. However, unlike the capsular tension rings they are removed at the end of the procedure and don't provide the permanent capsular support.

Dr. Barry S. Seibel (Pacific Vision Institute, San Francisco, CA) described the principles of phacodynamics – a theory he pioneered to help synthesize the microsurgical maneuvers with the phacoemulsification machine settings to enhance safety, control, and adaptability during cataract extraction. By integrating vacuum, aspiration, flow, ultrasound power and modes as well as bottle height, the surgeon can adapt the settings to the technique, such as phaco chop or divide and conquer, for example, to maximize the outcomes in patients with different cataract and lens considerations.

IA) presented the update on different viscoelastic materials used in cataract and lens surgery – some with endothelial protective properties, others with the cohesive properties.

Dr. James Davison (Wolfe Eye Clinic, Marshalltown,

protective properties, others with the cohesive properties to allow the ease of removal and lower incidence of post-operative increase in intraocular pressure.

Dr. Samuel Masket (Jules Stein Eye Institute, UCLA School of Medicine, Los Angeles, CA) demonstrated clinical examples of performing lens and cataract surgery in patients with severe ocular problems, such as displaced IOL due to trauma, for example. He emphasized that surgery for malpositioned IOLs requires an individual approach for each case and, in many cases, the use of new tools and refined surgical skills. The difference in techniques would depend on the amount of capsular support. For example, IOL dislocated after ocular trauma may be repositioned back into the capsular bag. However, if the capsular support is not adequate, or the capsular bag is fibrosed, the IOL needs to be sutured.

Practice Development

5 steps to building successful OD Laser Vision Correction practice

1. Let patients know you do Laser Vision Correction care

From your on-hold message to the posters in your office, your patients should know that LVC is an important part of your practice. By letting patients know you do LVC, you encourage patients to ask you questions, rather than possibly get misinformation elsewhere. You establish an image in your patients' eyes and in the community as a LVC expert.

Let every encounter the patient has with your



Dr. Jennifer Quirante (Pacifica, CA) displays LVC posters to let patients know she is active in LVC care

practice reinforce that you are experienced in LVC care. If you have an on-hold message, add LVC care to the list of services you provide. Place brochures and posters not only in your waiting room, but in your exam room as well. Provide seasonal information to patients. During the spring, educate them how LVC may be helpful if they are active in sports or if they can't wear contact lenses because of allergies. In the fall, educate them about flex plan pre-tax savings. Ask them on their intake questionnaire if they would like to discuss LVC during their exam.

Display your LVC training certificates. Consider putting together a book of patient comments and displaying it in the waiting room. You can include comments from all your patients – contact lens wearers, families you treated, LVC patients.

Consider doing quarterly mailings to your patients informing them about the advances in eye care, including LVC.

By letting your patients know that you are up-to-date on sophisticated eye care, you establish yourself as the eye care expert and encourage them to come to you for advice.

PVI Affiliated doctors should inquire about many cooperative patient education activities they are eligible for.

2. Bring up Laser Vision Correction option to every patient

You want to educate your patient about all the vision options available to them. Don't wait for them to ask. They may not realize you take care of LVC patients. By bringing it up to all your patients, you open a dialogue with them, encourage them to turn to you for advice. After all, you know their eye history, their lifestyle, what prescriptions worked for them in the past. Who, if not their eye doctor, is best suited to discuss LVC with them, to provide them with accurate information, to send them to

Practice Development

a good surgeon. Don't hesitate to bring it up. Your patients will be relieved to speak with you about it. They will be less likely to seek LVC through a less than reputable source. Don't worry about them asking you complex questions. As a PVI Affiliated doctor, you can e-mail or call your surgeon, or send the patient for a consultation and we can help you to address all their concerns.

3. Designate a Laser Vision Correction Coordinator for your practice

You may not have time in your busy schedule to discuss the routine details of LVC process, to schedule the appointments, to carry out communication with the surgery center, and to maintain the paperwork. LVC Coordinator is a designated staff member who can help you with these activities and simplify the process significantly. As a member of the PVI team of doctors, you have access to all the staff training

resources, including observing the patient consultation process and live surgery. Your staff will receive a certificate of completion, knowledge, a sense of accomplishment, and confidence to help patients in your practice with their LVC questions.

4. Educate all your staff about Laser Vision Correction

The more informed all your staff is about LVC, the more comfortable they are in discussing it with patients, both on the phone and in the office. If you or your LVC Coordinator is busy, your other staff can help explain the routine steps



to patients. They can also help reinforce the importance of follow up care and proper drop regimen. The more familiar your staff is with LVC, the more enthusiastic they will be with your patients. Special staff learning sessions for PVI practices can be arranged at either the PVI surgery center or in your office.

5. Follow up with your patient the evening of their laser vision correction

Over the years, we found that the single most important call you will make to your patient will be to ask "How are you doing?" on the evening of their procedure. Patients will, most likely, not expect the call from the doctor, but will be touched and pleasantly surprised by your care and attention.

Keep in touch with your patient. As a PVI affiliated doctor, you will receive a fax from the PVI counselor with your patient's procedure date on it. Your office can then call the patient to reinforce the importance of follow up visits and set up the appointments for the patient. Call the patient the evening of their procedure. They will see how actively involved you are with LVC. They will remember it and will pass on the good word to their friends.

Practice Development

As an eye care provider, you are committed to educating your patients about all the modern vision correction options, including laser vision correction. What is the best way to discuss this option with your patients? We interviewed high volume comanaging doctors about their approach to educating patients about laser vision correction. Here is a typical dialogue they have with their patients during the course of their examination.

LASER VISION CORRECTION DIALOGUE

Always Start With a Plan For Each Patient!

INTRODUCTION

"I'd like to briefly explain what will happen today. First, I'd like to talk to you about any changes you have noticed with your eyes. We'll address any problems, questions, or concerns you have. Then I'll conduct an eye exam to see if your prescription has remained stable or has changed."

"I'd also like to talk about what I now consider to be a very important option for patients to consider – Laser Vision Correction. Because of the significant advancements in safety and accuracy with Lasik, I've become very confident offering this option to patients who I believe are candidates."

"Patients are often confused about the best course of action for their eye care needs, 'Should I wear glasses, contacts, or should I now consider LASIK?' What I'm finding is that the best way to approach this is to discuss your comfort level with glasses/contacts. And talk about your lifestyle and how laser vision correction may be an option you should consider."

DETERMINING PATIENT NEEDS

Ask detailed questions to determine the best option.

"Tell me a little bit about your lifestyle. Examples: your work, activities, family"

"Are you finding that your glasses/contacts are impacting your ability to work or any part of your lifestyle? Examples: heavy computer use, activities, family life."

"What is most important to you-convenience, appearance, functionality, or comfort?"

EDUCATING THE PATIENT

"You've expressed concerns or discomfort about wearing contact lenses due to your: Active lifestyle, concern about breaking or loosing your glasses, or the expense to frequently update your prescription. Also, your prescription is stable and is within the range for laser vision correction. You are ready to move out of glasses and contacts. With the advanced technologies and the latest custom procedures, Laser Vision Correction is an excellent option for you. Do you know much about it?"

"I would strongly recommend the safest and most advanced procedure available to you, IntraLasik. The procedure is now an entirely laser procedure, it's extremely safe – virtually eliminating the risk of any complication."

SCHEDULING THE CONSULTATION

"The next step for you is to go in for a complimentary evaluation to have the additional measurements and mapping done that can only be done at the surgical facility. At the consultation, you will have all your specific questions answered. And because you have just had your eye exam with us, we can schedule this appointment for you today. We will call the laser center and set it up for you before you leave."

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Spotlight on OD

Spotlight on Bay Area Optometrist: Dr. Robert Monetta

More than meets the eye

A third-generation San Franciscan, Dr. Rob Monetta has one of the busiest practices in the Bay Area with multiple locations and patients who come to see him from around the world. For many patients, from 3-year olds to 93-year olds, a visit with Dr. Monetta is a special occasion. Seeing patients 6 days a week, his schedule is usually booked well in advance.

What accounts for such patient loyalty? Dr. Monetta thinks it is because he approaches a patient as an entire person, rather than just a pair of eyes. As specialists, we are trained to zoom in on a particular body part, a symptom, a finding, a slit lamp image, a view in the oph-

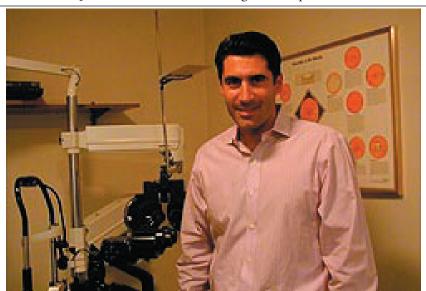
thalmoscope. It often takes a conscious effort to turn on the light in the exam room, sit back, and listen to the patient. And then look at them - from head to toe. What is their real problem? Is it blurry vision or is it not doing well in school because they can't concentrate? Is it "my glasses don't work any more" or is it malignant hypertension with macular exudates? Dr. Monetta believes that we often hold the key not just to our patients' better vision, but to their overall health and happiness. We just have to look and listen.

He describes a 9-year old girl whose mother brought her in for glasses

because "she couldn't see well at school." Dr. Monetta found minimal refractive error and good visual acuity. He then asked the girl to tell him more about the difficulty she was having. He found out that rather than not being able to see, she couldn't concentrate and would quickly loose track of what she was reading. Other kids teased her. She was very unhappy at school and with herself. Her performance was deteriorating. Realizing that this wasn't just a matter of prescribing a simple pair of glasses, Dr. Monetta evaluated the girl's ocular mo-

tility and alignment. He found that she had difficulty fusing images at near. He recommended vision training therapy. Within six months, the youngster's grades improved and so did her self-esteem.

Dr. Monetta also recalls a 55-year old who came in to his office on a Friday afternoon asking for a new eyeglass prescription. Dr. Monetta tested her vision and found best-corrected visual acuity of 20/80. She has always been 20/20 on previous exams. He dilated her eyes and much to his surprise (and hers) found severe hypertensive retinopathy in both eyes. The patient was not even aware that she had high blood pressure! Dr. Monetta



Dr. Robert Monetta in the exam room of his Ocean Ave office. Informative posters help him educate his patients about their ocular health

referred her urgently to an internist and followed up over the weekend to make sure that she had gone in to see him for prompt management of her hypertension.

He is an old-fashioned doctor in many ways. He doesn't rush, he lets his patients speak, he listens, he looks. And patients feel it. They get ready to see their eye doctor as though it were a special occasion. And it is. We see many patients a day, but each patient sees us once or twice a year. "We have to make it special for each patient, we can't disappoint them" says Dr. Monetta.

Dr. Monetta Optometry, 2532 Ocean Ave., San Francisco, CA 94132, (415) 239-2544 Eyes in Disguise, 2189 Union Street, San Francisco, CA 94123, (415) 474-5321

Research Foundation

Founded in 2004, Pacific Vision Institute Research Foundation (PVIRF) is dedicated to advancing the science of diagnosis and treatment of patients with such congenital disorders as keratoconus, corneal dystrophies, and refractive errors.

PVIRF Functions

- Advance the field of corneal diagnosis and treatment through original clinical and basic science research
 - Past projects research to prevent blindness in hereditary degenerations, mathematical analysis of refractive surgery techniques to treat astigmatism, development of new surgical techniques to enhance the safety of corneal transplantation in children, study of corneal healing following refractive surgery
 - Current projects study of safety and efficacy of advanced surgical procedures for correction of nearsightedness, farsightedness, and astigmatism, study of new medications to enhance healing following refractive surgery
- Provide education to health care professionals (both from US and abroad) seeking to advance their skill and knowledge of corneal and refractive surgery
 - Annual San Francisco Cornea, Cataract, and Refractive Surgery Symposium
 - Quarterly Grand Rounds
 - Fellowships for both US and Foreign doctors. This year's fellow is a student from NYU interested in pursuing work in ophthalmology. In the past years, the fellows from Europe and Africa underwent training at PVI. Foreign doctors return to their communities with the advanced skill and knowledge enabling them to treat corneal and refractive surgery problems in their native countries more effectively
 - Educational publications and events for health care professionals
- Provide educational opportunities to middle school and high school children interested in the field of health care
 - Surgery observation
 - "Spend-a-day with a doctor" program
 - Research projects children learn the scientific method of data collection and analysis and have an opportunity to do a research paper
- Provide medical and surgical treatment to the indigent population
 - Treatment of keratoconus and other congenital corneal disorders
 - Corneal transplantation in adults and children

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Research Foundation

These are examples of the ongoing activities of the PVIRF and the individuals who benefited from the research, education, and clinical work.



Emily Nosova, a sophomore at NYU, is the PVIRF 2005 Summer Fellow has conducted research to compare higher order aberrations in patient following LASIK with Intralase FS laser vs. mechanical microkeratome. Her work will be part of the scientific publication in a peer-reviewed journal and she will present her data at the 2006 American Society of Cataract and Refractive Surgery Meeting



Jose Owel Rivera is an 19-year old immigrant from Mexico who underwent Intacs for the treatment of his keratoconus. Prior to Intacs, Owel's best-corrected vision with contact lenses was 20/40. Now, 2 years after his procedure, he can wear contact lenses comfortably and his vision is 20/20. Owel is studying computer technology at Heald College.



Julio is a 26-year old with a history of advanced keratoconus and inability to wear contact lenses. His best corrected vision was 20/400 in both eyes. Two years ago Julio underwent bilateral corneal transplants by Dr. Faktorovich. Since then, he can wear contact lenses comfortably and his vision is 20/20. Julio is enrolled in college, studying computer technology.



Bay Area optometrists attend a lecture by Dr. Kim Cooper "Strabismus update: Diplopia made Twice as Easy". Dr. Cooper is on the PVIRF Board of Advisors. Her lecture focused on diagnosis and treatment of diplopia in adults. The lecture is part of the ongoing PVIRF educational series.

Refractive Advisor



Q: With the FDA approval of presbyopic IOLs, how do you make a decision whether lens or corneal surgery is best for the patient?

A: In the absence of a cataract, I am reluctant to recommend refractive lens

exchange for patients younger than 50-years old, who still maintain some accommodative reserve. If the patient's corneal thickness is adequate to allow treatment of up to -12D of myopia and up to +5D of hyperopia, I recommend LASIK for these patients. In patients 50 years old and older, when the remaining accommodative capacity is minimal, we can consider refractive lens exchange. The exception to this would be a patient with significant corneal astigmatism. It is best corrected with corneal laser vision correction. Laser vision correction may also be a better option for an older patient with mild-moderate myopia (i.e. up to -6D). IOL power calculations are less precise than laser vision correction and the patient has a greater chance of ending up with 20/20 distance vision after LASIK than after refractive lens exchange. If good distance vision is a priority for the patient, LASIK may be a better solution for them. I always counsel my patients that, as they get older, they may develop cataracts - regardless of whether they had corneal procedure or not. Cataract surgery can then be performed, followed by additional laser vision correction to fine tune the result, if necessary.

Q: I heard that patients may get light sensitive after LASIK with Intralase. How common is it and how do I manage it?

A: Light sensitivity after LASIK with Intralase occurs in less than 1% of patients in a practice that is experienced in using the technology. When a surgeon is in the beginning stages of learning how to use the Intralase, neither the energy settings nor the technique have been optimized. As a result, too much energy is being delivered to the cornea and this may result in higher percentage of patients experiencing light sensitivity. Once the surgeon optimizes energy settings and technique, the incidence of light sensitivity is less than 1% - similar to flap-related complications with a mechanical microkeratome. The difference is that the light sensitivity typically resolves within a few days with topical steroids and doesn't effect vision at all where as flap-related complications with a mechanical microkeratome can have serious permanent effect on vision.

Treatment typically involves Pred Forte every one to two hours for the first week, followed by qid for the following week, then bid for a week, then stop. Patients should experience marked improvement after the first several days of using the drops. If symptoms don't improve after a week of using the drops, the patient is probably not using them often enough. A reminder to use the drops every one to two hours will generally result in significant improvement. Of course, IOP should be measured weekly when the patient is using the drops.

PVI CONTINUING EDUCATION SERIES

"Retina Update – new approaches to AMD prevention and management"

J. Michael Jumper, M.D.

August 4th, 2005; Teatro Zinzani, San Francisco, CA

"Glaucoma Update – managing a glaucoma suspect in primary eye care"

Sidney Williams, M.D.

August 11th, 2005; Teatro Zinzani, San Francisco, CA

"Glaucoma Update – managing a glaucoma suspect in primary care eye practice"

Sidney Williams, M.D.

September 7th, 2005; Draeger's Cooking School, San Francisco, CA

"Systemic Medications"

Ella G. Faktorovich, M.D.

September 23rd, 2005; San Francisco Optometric Society Meeting, San Francisco, CA

"Strabismus Update - diplopia made twice as easy" Kim Cooper, M.D.

September 29th, 2005; Bay Club, San Francisco, CA

5th Annual San Francisco Cornea, Cataract, and Refractive Surgery Symposium

March 17th, 2006; Four Seasons Hotel, San Francisco, CA and haloes.

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