

# EYE NEWS

SPRING 2023



STUART R. WINTHROP, M.D., F.A.C.S

515 East Micheltorena Street · Suite D

Santa Barbara · California · 93103

LASIK Line (805) 730-9111

Medical Office (805) 963-4272

www.seewinthrop.com

## A Note from Dr. Winthrop

The happy news I would like to start this year's newsletter with is that Betsy and I celebrated two weddings within two months of each other this past year. Both were in Santa Barbara. So strange and wonderful to go from 3 single adult children to an expanded family in a blink. Exciting and thrilling and life changing! Mia married Daniel from Toronto, Canada in November and Sam married Lindsay from London, England in January.

Both weddings were intimate, meaningful and filled with love. They were very small, with parents, siblings and their spouses, and a few friends in attendance. There is nothing like seeing your children in love and happy. I'll take it every day!

Believe it or not, Mia will finish her formal medical education in June as she completes her one-year fellowship in Geriatric Psychiatry at UCLA. This past year she passed the examination boards of the American Academy of Psychiatry and Neurology and is now a "Board-Certified" Psychiatrist. She is figuring out the next step in her career, and Betsy and I hope Santa Barbara will be in the equation.

Her husband Daniel has an interesting background as an athlete. Although he is happy to tell you his best sport was hockey (after all he is Canadian), he switched his focus to soccer as a teenager. He played soccer as an undergraduate at Cornell, and in his junior year led the nation in scoring. He was named a Division I First Team All-American and Ivy League Player of the Year. He followed his dream to play professional soccer in Europe and North America for roughly 7 years before returning to Cornell to finish his degree. Daniel is now working in the technology sector.

Sam is continuing to thrive at the same hedge fund and really enjoys what he does. He spent 7 months working remotely in London last year and loved the experience. Everything was within walking distance - the pub, butcher, fishmonger, haircuts, etc. Sam claims that the only time he needed to be in a car was going to the airport.

His wife Lindsay was born and raised in London. Her parents are Americans who spent their careers in London. She attended Oxford University and after her first job brought her to New York City, she obtained her MBA from Columbia University. She is an executive with a multinational corporation.



Rachel continues to flourish in Whitefish, Montana and tremendously enjoys her lifestyle. She has an awesome group of friends, is constantly on the move and is game for all new adventures. This year she finishes her 2-year master's program in Social Work from USC (online) and plans to work with teens. Her 2 dogs, Edward and Piper, are the best.

Betsy and I have maintained a very lowkey lifestyle. We are content to stay home and have our children travel. We did some home improvements for the weddings and, as always, just feel blessed to be in Santa Barbara, living in the same house for over 35 years. Betsy and I were married in our backyard and now we have 2 children who also used our home for their wedding activities.

Professionally, this past year has continued to

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## *Thank You For Your Referrals*

*Each year we definitely want to recognize and thank you for your referrals. Dr. Winthrop continues to see new patients in his practice of comprehensive ophthalmology. It is our pledge to give your family and friends the same care you enjoy, whether they are seeking a routine eye exam, a surgical treatment, or a second opinion.*

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cement my plans to continue working with no retirement plans in sight. I love what I do and the positive feedback I receive. The ability to help people and improve and change their lives is a huge boost to me. I thrive on being busy and as I talked about in last year's newsletter, I have the best staff. No doctor's office is perfect, but my staff are sensitive, kind, courteous, considerate and just lovely people. The office teamwork is fabulous, and they are always doing their best for you. Having the energy and passion to show up every day at the top of my skills, with a dedicated and well-trained staff to support my work is incredibly rewarding.

A big change from last year is that Lake Cachuma is once again full. It is worth the drive to go see it. Another change is the status of COVID. I do think that COVID will be labelled endemic as opposed to pandemic, and that booster shots will be a once-a-year event, much like flu shots. I think that where and when masks will be required or utilized will be more dependent on each individual's perspective and medical condition. One of my responsibilities is to try to keep everyone in my sphere safe: myself, my staff and you, the patient. As you know, I instituted a vaccination requirement for my office. Throughout the pandemic, I have been strict with a locked front door and screening protocols, as well as a cleaning protocol between each patient. I have received tremendous positive feedback from many of you who appreciate our efforts to ensure a safe environment. I do recognize and make exceptions for those that have a medical condition, such as cancer or an immunodeficiency, that precludes their vaccination. As I write this, masks are no longer required to enter my office provided you are vaccinated and have received one booster shot. I follow the recommended guidelines for medical facilities. To me, given the choice, it is still best to avoid COVID in its acute phase as well as a potential "long" COVID phase.

The pandemic has changed all of our lives in unimaginable ways, but at the same time has made us focus on the truly important things in life. Above all else, family, good health, safety and happiness. My Mom recently turned 96, such a blessing, and we were finally able to celebrate her birthday with her as a family.

In terms of my practice, this past year was again rewarding. Patients who I saw regularly before COVID, but have not seen for several years, are starting to come back in for appointments. The rhythm in the office is getting back to normal. One of my great joys and rewards in the longevity of my practice is seeing your familiar faces.

My practice still revolves around providing the best care with the latest technology. I have now had my new Excimer laser, the Allegretto EX500, for 2 years. I'm not sure who is happier with the results of this LASIK technology, me or the patients. This is truly awesome technology that I will detail in this newsletter. As well, my practice has matured with the high adoption rate for the FEMTO second laser in cataract surgery, also detailed here in the newsletter. These technologies are amazing and as technologies do, they just keep getting better.

Finally, I wish all of my patients a safe and healthy 2023. It is a privilege to provide your eye care and I am honored by the trust you place in me. I remain deeply committed to delivering the highest possible level of care and service to you. I sincerely appreciate your continuing confidence in me. Be well. 🍀

## Highlights

The professional highlight of this year has been the continued integration of the Femtosecond laser into my cataract practice. With the advent of the Femtosecond laser (LenSx), premium Intra-Ocular Lenses (IOLs), ARGOS, ORA, and Verion in cataract surgery, the improved vision achievable through cataract surgery nearly duplicates the fantastic outcomes obtainable with LASIK. This has never before been possible. In fact, my practice patterns have changed because of the great results I am getting with laser-assisted refractive cataract surgery.

ARGOS is the machine I use prior to surgery to determine the appropriate power IOL that will replace your clouded, cataract lens. ARGOS is a swept-source OCT-based biometer for the most precise measurement of the axial length of your eye, a key component in determining the IOL power. The ARGOS also measures the corneal curvature, anterior chamber depth (ACD), and corneal white-to-white (WTW) more accurately. With this improved data, the computer formulae can



better predict the correct IOL power for your eye.

The LenSx laser creates surgical incisions and eliminates the use of scalpel blades and diamond surgical knives. The laser creates an idealized 2.4 mm (1/10 of an inch) incision that is dimensionally a 3-plane incision with a perfect 1500-micron cord length which allows the incision to self-seal without stitches. It also creates a centered, perfectly round 5 mm capsulorrhexis (or opening for the lens capsule that holds the lens/cataract). No human can replicate this accuracy. Finally, the LenSx creates grooves in the hardened cataract allowing for easier removal with phacoemulsification. By standardizing the potential variables in these steps of your cataract surgery, LenSx greatly assists in the appropriate positioning of the IOL and thus enhances the refractive outcome.

If you have astigmatism, the Toric premium IOL can internally correct this irregularity. Together, Verion and ARGOS technology ensure precise placement of this IOL. Astigmatism has an axis or angle, and the Toric IOL must be placed on the "steep" axis. Before surgery, I measure your astigmatism with the ARGOS in the upright, sitting position, but I perform cataract surgery in the supine, lying position. When you go from the upright to lying position, your eyes "cyclotort" (or rotate) and each patient is a little bit different. The ARGOS records limbal registration and records your data, that is then transferred to the Surgery Center and used with the LenSx laser. This auto corrects for any cyclotorsion and then plugs into my operating room microscope with another piece of equipment called Verion that projects the steep axis onto your cornea for the most accurate placement of the Toric IOL. Very cool.

Another technology of which I make great use is ORA. ORA is an aberrometer that is mounted on the underside of the operating room microscope. It has its own article in the newsletter under new equipment, so I won't repeat it here. Taken together, all this fabulous technology creates a powerful surgical tool. It has made my cataract patients and me very happy. 🐼

## Premium IOL's

I always like to give an update on premium intra-ocular lenses (IOL's) in the newsletter. The

ultimate goal for a replacement lens following cataract surgery is a "multifocal" IOL, meaning that it provides good distance vision, good vision at an intermediate (computer) distance, and lastly, good vision for reading, without any annoying side effects. Candidly, IOL technology has not totally achieved this goal-but there is a product that is getting us much closer. It is a new design called the Alcon Pan Optix. Pan Optix is a quadrafocal lens that works as a trifocal lens in the eye. As opposed to previous multifocal IOL's that relied on "extended depth of field," the Pan Optix has a power correction for each distance. I'm often asked if this works like trifocal glasses and the answer is no. There is no jump between focal points and the different distances are all in focus as you look. Reading with this IOL is the best I've encountered in any of the multifocals, and the typical side effects of glare and halos are reduced by over 50%. The Pan Optix is the only multifocal IOL I am presently implanting.

Multifocal IOL's are "diffractive" lenses, meaning that there are rings of varying powers. The center optic is biased for increased clarity and quality for distance vision and the peripheral rings are for mid-distance and reading. Since diffractive lenses divide light, they are dependent on good light, especially for reading. Under normal good lighting, reading is fine; but in a dimly lit restaurant, for example, a low power reading glass or the flashlight of your cell phone may be needed. After surgery, it generally takes about one month for the patient to adjust to the optics. For maximum benefit, both eyes should have the Pan Optix. Furthermore, for best results, your eyes should be free of any ocular pathology other than the cataract. With Pan Optix, about 30% of patients will see some glare and halos around lights at night. The majority of patients report that over time, these side effects lessen as your brain "neuro adapts" to the Multifocal IOL.

The other premium lens that I often use and like very much is the Toric IOL, which corrects astigmatism. Astigmatism occurs at the corneal plane, yet the Toric IOL can correct astigmatism internally. The Toric IOL qualitatively and quantitatively improves vision by eliminating astigmatism without the use of glasses, a result otherwise not attainable. Cataract surgery offers the surgeon a clean slate to correct existing refractive errors, and astigmatism is a significant component of



that refractive error. I use the Toric IOL in combination with the LenSx laser, ARGOS, ORA and Verion. The end result is a happy patient and a happy doctor. 🐾

**Staff Notes**

This past year my already professional, experienced staff has become more adept at making your experience in my office more efficient and pleasant. My front office team, led by my receptionist Linda and medical assistants Edgar and Yessi, are truly outstanding. They have the difficult task of ensuring all the required paperwork is completed and up to date, getting the correct tests performed while being polite, respectful, and informative. They are great multi-taskers!

My surgical schedulers, Claudia and Peggy, both 30-year employees, are fabulous at their difficult job of juggling my surgical schedules, getting all the paperwork completed and delivered to the surgery center, and, most importantly, answering all your questions. I try to make the process as seamless as possible, but it is their hard work, diligence and kindness that brings it all together. They do a great job.

Upstairs, a place you don't see, is my back office. Charlotte, my administrator, does a great job wearing the many hats that are necessary to run a medical practice. On Fridays she changes her work clothes for scrubs and works with me in my laser center running the Excimer laser for LASIK. She oversees Claudia Q and Elisabet, who happen to be sisters. They process charts, help answer the phones, fill in where needed downstairs and keep things running smoothly in the clinic. Couldn't be without them.

Finally, a nod to Christian and Rindi. Rindi is my long-time bookkeeper, and she is my interface with Medicare compliance issues. A very trying exercise.



Many of you now know Christian, who replaced Jeff 2 years ago, as my medical technician. Christian is a wonderful addition to our staff who has the personality, knowledge and passion to help people. He is a great listener who relates and connects to everyone. I feel very fortunate that Christian has joined my practice. The common thread for all my employees is their commitment, professionalism and a great work ethic. I am so lucky! 🐾

**ORA**

I've discussed ORA in the past and it is mentioned in the different segments of the newsletter dealing with cataract surgery. ORA is a revolutionary device that allows for verification of the IOL power during cataract surgery once your cataract has been removed. It originally entered my life about 8 years ago when I was one of the first to adopt and utilize this new technology. The original unit was nearing its end-of-life cycle and the manufacturer, Alcon, came out with an updated model.

The new unit is faster. It also allows for direct integration with ARGOS and Verion, so a memory stick is no longer required to link the systems together. This eliminates potential transcription errors and is more sophisticated in its acquisition of data. ORA is essentially an aberrometer that sits under the operating room microscope. Once your cataract has been removed, I utilize ORA to confirm the IOL power choice I've made. With the cataract removed, the measurement can be more accurate as there is no "noise" or interference from the previous cataract. This is another step forward in the accuracy of cataract surgery. 🐾

**Which Vision Correction Procedure Is Right For You?**

There are three different procedures that can correct vision. They are refractive lens extraction (RLE), refractive cataract surgery and lastly, LASIK. I recognize that changing nomenclature and technological advances make it difficult to determine which procedure would be appropriate for you. I will describe the three choices and discuss their pros and cons.

RLE is essentially the same procedure as cataract surgery, with the removal of the natural lens you were



born with and its replacement by an intraocular lens (IOL) that is selected to give you good vision. The difference between RLE and cataract surgery is that with RLE the natural lens being removed has not clouded over to form a cataract. This procedure is for people who have high refractive errors (nearsightedness, farsightedness and/or astigmatism) and wish to be less dependent on visual aids. They may also be LASIK candidates, but choose not to have LASIK because LASIK will correct either distance vision or near vision but not both, whereas with RLE the patient can select a multi-focal lens that provides good near, middle and distance vision. RLE candidates are typically in their 40's to 60's. If you are younger than 40 and can still focus close up without reading glasses, RLE is probably not for you. For RLE candidates, once the lens is removed, the ability to focus is reinstated with the implantation of either a Pan Optix multifocal intraocular lens (IOL) or a monofocal IOL (which would provide either good distance vision or good reading vision, but not both.) The procedure is done at an outpatient surgery center, with one eye done at a time. Since insurance companies have certain criteria to meet the "cataract" diagnosis and provide insurance coverage and there is no diagnosable cataract in RLE, it is not covered by insurance. The costs are paid entirely by the patient.

Refractive cataract surgery involves the replacement of the cloudy natural lens with an IOL selected to improve vision. Refractive cataract surgery is now by far more common than the conventional cataract procedure. With the diagnosis of a cataract, this surgery is partially covered by insurance. That insurance coverage would include my cataract surgery fees, the cost of the surgery center and the anesthesiologist. The part that is an out-of-pocket expense is the "refractive" component associated with implanting the upgraded lens. This includes the use of technology to determine the precise lens to correct your vision (the FEMTO second laser, ORA and Verion), the premium IOL itself, and any astigmatism correction. The surgery is done at a surgery center, with one eye done at a time. This procedure is very accurate, with little dependence, if at all, on glasses.

LASIK is still an excellent choice for correcting any refractive error, and remains the gold standard.

The procedure is done in my office, both eyes in one sitting. And, as is true for all 3 of these procedures, the down time is just the day of surgery. One day post-op you can essentially resume full activities. I have performed LASIK since 1996, so it is a mature technology that offers staggering results. The upside is that it is an office procedure that is fast and painless, with wonderful results. The downside is that if you are older than mid-40's, I can correct vision for distance or for close up, but not both. If you are younger than 45 years of age, you can achieve both good distance and near vision. LASIK is an out-of-pocket expense not covered by insurance. 🐦

## Looking Back at LASIK

Last year, I included an article under the same title of "Looking Back" but on cataract surgery. This year I thought, why not do the same for LASIK? Although the Excimer laser for refractive surgery was FDA approved in 1996, it now has a long history of use.

The Excimer laser was originally an IBM product for etching computer chips and was extremely adept at miniscule corrections. For human tissue, it is able to remove 0.25 angstrom of tissue with each pulse with no collateral damage to adjacent tissue. This discovery led to a long march of over a decade to finally getting FDA approval for eye surgery. In the meantime, the technology was approved in Europe, and I originally trained on the technology in Switzerland and Mexico when the FDA would not allow importation of the machines into the US.

Summit and VISX were the original two companies manufacturing LASIK equipment; now there are several other companies that make Excimer lasers.

## I Welcome New Patients

I welcome all new patients and value your kind referrals for their comprehensive ophthalmology needs. I do not limit my practice only to LASIK or surgical ophthalmology. I love my LASIK and cataract practice because patients are so pleased with their outcomes, but the heart and soul of my practice will always be taking care of patients with medical problems of the eye, and routine "well-patient" care to prevent those problems in the first place. 🐦



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My first machine was a SUMMIT, and then I had a VISX. Both were “broad beam” lasers. In 2000, the first “flying spot” laser came to the market from a small company in Florida which was subsequently purchased by Alcon. Called LADARVISION, this was a huge step forward in speed, accuracy, tracking ability and range of correction. For the first time I didn’t need to tell my patient to “look at the fixation light” as the machine could fixate the pupil and track it during the procedure. Many of the potential risks and complications were eliminated with this technology.

Then in 2010, I purchased my first Allegretto, a German machine that was designed by a Swiss Ophthalmologist who was actually one of my instructors in the first course I took in Switzerland. The Allegretto was also a “flying spot” laser that ran at 400 hertz or fired a laser pulse 400 times/second. Surgery that would take 15 seconds/diopter of correction could now be done in 1.8 seconds with greater accuracy. But the biggest advance in this newer technology was in the ablation profile and blend zones. With the earlier Excimer lasers, the ablation zones were smaller, almost limited to the optical zone, so there were relatively abrupt, steep angles to where the ablation started and stopped. The effect of this was that regression was common. In fact, for all the lasers prior to the Allegretto, the retreatment rates were 8-10%, which is still true for many of the commonly used lasers. The Allegretto’s retreatment rate is 1-2%, which is even more impressive given the fact that the Allegretto is much more robust in its treatment range for myopia, hyperopia and astigmatism. The larger ablation profile has also eliminated glare and halos that were previously common.

The next step forward came with the 500 hertz Allegretto. It is slightly faster at 1.4 seconds/diopter of correction. It also has a tracking device that runs at 500 hertz, which is about 7 times faster than you can move your eye. With the matching 500 hertz capabilities, each laser pulse is calibrated and tracked 500 times/second. All the other technologies can track your eye relatively quickly but can only move the laser beam every half second, so they are always playing catch up. Not so with the Allegretto.

Yet another feature of the Allegretto is the “Perfect

Pulse” technology that I’ve mentioned elsewhere in the newsletter. It is amazing how this technology is able to safety check and calibrate each pulse at 3 separate locations before being delivered. But the biggest advance with the Allegretto is its ability to do “topography driven” LASIK or PRK.

Alcon calls this “CONTOURA.” Up to this point, all ablation profiles have been symmetric although the Allegretto performs an upgraded wavefront optimized treatment as its standard ablation treatment. With CONTOURA, an aberrometer measures each eye and creates an ablation profile that is unique to your eye. It essentially makes a “fingerprint” of your corneal profile, mapping high and low points, and any astigmatism asymmetry. It creates a unique laser treatment pattern that will only correct your unique eye. The Allegretto is the only machine in the world with this capability.

So, although the original results obtained back in the late 90’s were good, they would not be acceptable today. Most of the potential albeit rare complications have been engineered out of the procedure. The larger ablation profiles, the extremely fast flying spot technology, the newer wavefront optimized ablations and CONTOURA produce unbelievable results and exuberant, happy patients. 🎉

## Social Media

Many new patients find their way to my office via social media. We have always encouraged our LASIK patients to post about their experiences on Yelp or Facebook, but with the rapidly changing ways in which we all make use of the Internet, even more new avenues for finding professional referrals are augmenting the old tried and true method of asking advice from relatives and friends. So now we urge all of our patients who use social media to post comments about their eye care online, whether they come to see me for LASIK, cataracts, a unique problem or even well patient care. Of course, we should all evaluate online reviews critically, but Yelp and Facebook are frequently the first source for referral, whether one is looking for a restaurant, a general contractor, or a doctor!

We have a new social media post called “Patient of the Month.” Patients who have had LASIK or cataract surgery will post comments and pictures describing



how their procedures have changed and improved their lives. Thank you for taking the time to post. I sincerely appreciate your trust in me, whether you recommend me to a family member or friend, or post a review online. 🌟

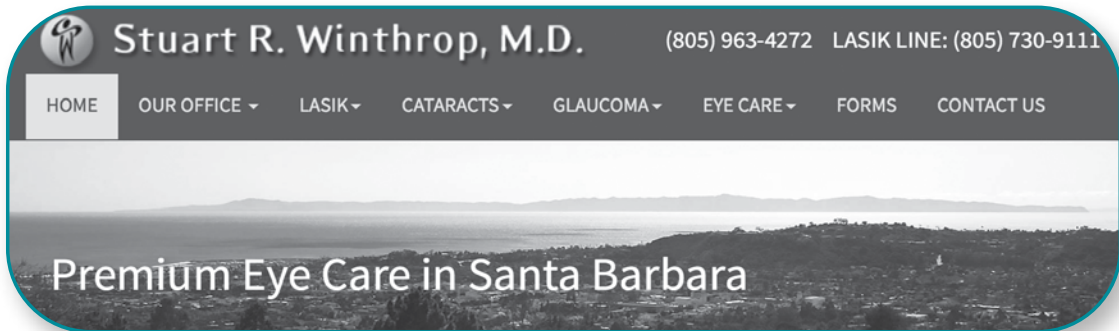
**We Invite you to Visit Our Website**

I encourage all my patients to visit my website: [www.seewinthrop.com](http://www.seewinthrop.com). It is constantly updated with new information and is formatted so that the content seamlessly adjusts to whatever device you are using. You will find answers to many of your questions about general eye anatomy, diseases of the eye, or a surgical procedure you may be contemplating. There are video clips and this year's newsletter as well. You can also check out my academic credentials and training history, download registration forms, get directions, or determine our office hours.

Whether you are a new or existing patient, visiting the website before an appointment will shorten your check-in time upon arrival. Since registration forms and insurance information need to be updated on a yearly basis, I highly recommend that you download these forms from the website and fill them out prior to your visit. We now have Medicare forms online too. If you come to your appointment armed with these completed forms, together with a list of all medications you are currently taking, you can make a big contribution toward minimizing your "wait" time. Thank you. 🌟

**Free Screening for LASIK**

Are you still not sure if you are ready for LASIK? In our experience family members wait to see who will "go first". Call us to schedule a complimentary screening at 805-730-9111 for you or your loved one. 🌟




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STUART R. WINTHROP, M.D., F.A.C.S  
515 East Micheltorena Street • Suite D  
Santa Barbara • California • 93103