

EYE NEWS

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A Note from Dr. Winthrop

True to my past practice, I'm writing this newsletter while on vacation. Yet, it is a struggle to leave my cares and concerns at home with both COVID and Russia's invasion of the Ukraine on my mind. Not only that, but it is mid-May and we have not had rain in Santa Barbara since December. Not good!

But I still have many blessings to count! I continue to love my work, and have the energy and passion to show up every day at the top of my skills. I have the best staff. They are kind, thoughtful, considerate, and just lovely people. The office teamwork is fabulous - no drama or ego. Just the drive to do their best for the patients. At this point, I could take this gift for granted, but I hear about it all the time from you as well.

One feature of my office of which I'm particularly proud is that, as an existing patient, if you have a problem, you will get seen. We've all had the experience where you call a physician's office for a new problem and you're told the next appointment is in 3 weeks or months. What good is that? In past newsletters I've discussed why I chose Ophthalmology as a specialty. One of the reasons is that people have a very high regard of their vision and seek care at the onset of a problem. So it makes sense to have an office policy that new problems get seen promptly. As with everything in life, there are pros and cons. In this instance, the pro is getting right in; the con is that there will be occasions when it creates a greater wait time for the rest of my patients. I hope you can appreciate the balance in running an office practice this way, as I'm sure all those patients who have been seen quickly do. Be assured that I am as unhappy as you are if you have a longer wait time than you are expecting.

Getting back to COVID, when the Delta and Omicron mutations were at their worst, 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. Now, the front door is still locked

but we no longer take temperatures or do a screening questionnaire. Rather, we require a copy of your vaccination card, much like asking for your insurance cards.

One of my responsibilities is to try to keep everyone in my sphere safe: myself, my staff and you, the patient. I

recognize each person can make their own decision with regard to vaccination, but I have an equal right to make my own decision for my practice. And it is my decision that vaccinations are required. The overwhelming response from the vast majority has been positive, and I'm thanked daily for providing a safe environment. I do recognize and make an exception for those that have a medical condition, such as cancer or an immunodeficiency, that precludes their vaccination.

I had my booster back in August of last year and am often asked about a second booster. Both Pfizer and Moderna have been approved by the CDC for the second booster, and I have received my second booster. The second booster should increase one's immunity again, and my understanding is that it will more specifically target the COVID mutations that have occurred. Given the time span that this

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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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pandemic has raged and the contagious nature of it, especially Omicron, many people have already had COVID. However, given the choice, it is still best to avoid COVID in its acute phase as well as a potential “long” COVID phase.

As I wrote in my last newsletter, the pandemic has focused us all on the truly important things in life. Above all else, family, good health and safety. My mom recently turned 95, such a blessing, and is as sharp as ever (although her joints are not as cooperative!) Her birthday celebration was greatly scaled back because of COVID as there are so many grandchildren and great-grandchildren that go from less than a year old to almost 50. I hope my family can have a proper celebration when she turns 100!

A while back I had planned a bucket list trip for my whole family to go to the Galapagos Islands off the coast of Ecuador. After the US State Department put Ecuador on the “do not fly” list, I canceled the trip (seems like I’ve gotten very good at canceling trips.) I was unwilling to potentially be quarantined or require medical care in Ecuador. In the old days, if you were traveling and became ill you got on an airplane and flew home. No longer an option. Since I had already booked the time out of my office, I did go to Poipu Beach on Kauai with my daughter, Mia. We spent most of our time hiking and snorkeling. A beautiful place to hike with so many options.

My wife Betsy and I have had a very lowkey lifestyle. We are starting to see my high school buddies again and are now entertaining some friends as overnight guests. Other than the trip with Mia to Hawaii, I’ve only flown to Montana to visit Rachel. Whitefish, Montana is just a beautiful place. Rachel is obtaining her Master’s degree in social work, while continuing her employment with two non-profits in Whitefish. She spends her time skiing in the winter and rafting in the summer, and loves Montana!

Mia has only one more year in her long journey of medical education. This past year she has been chief resident of her psychiatry program at USC/Keck and greatly enjoyed the responsibility of training and teaching her junior residents. She likes preparing and giving lectures but above all else, she treasures her psychotherapy time with patients. Mia will soon begin one year of Fellowship training in Geriatric Psychiatry at UCLA.

Sam is continuing to do well working at the same hedge fund and really enjoys what he does. He is currently working remotely while living in London, and traveling for pleasure as time permits. I’m so proud of my 3 children!

In terms of my practice, this past year was again rewarding. Dealing with COVID has become more of a regular fact of life to which we have adapted. I do think that the present pandemic will soon be labeled an endemic and we will be receiving yearly booster shots as we do for the flu. I’m hopeful that these boosters will be more protective and specific against COVID.

Patients who I saw regularly in the past, but have not seen for several years, are starting to come back in for appointments. Often their reaction is disbelief that it has been so long since their last appointment. For many, it seems that 2020 and 2021 were a foggy time when you just didn’t venture out. Even now, my schedule fluctuates as patients make last minute decisions about whether they want to keep their appointments. Each day is different.

My practice still revolves around providing the best care with the latest technology. I have now had my new Excimer laser, the Allegretto EX 500, for a year. 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 later in the newsletter. As well, my practice has matured with the high adoption rate of the FEMTO second laser in cataract surgery, also detailed in this 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 2022. 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 for 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 on a memory stick that I take to the Surgery Center and then use 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. Once your cataract is removed, ORA will reconfirm and double check the correct IOL power to be used. In some instances ORA can be more accurate than pre-operative measurements because it takes the measurements after the cataract is removed, and there is no potential obstruction caused by the cataract. Taken together, all this fabulous technology creates a powerful surgical tool. It has made my cataract patients and me very happy. 🧐

[Guiding You Through the Process of Cataract Removal](#)

It is often the case that my patients know they have cataracts for a while before we agree that it is time to schedule surgery. I monitor the progression of the cataracts and wait until the effect on the patient's vision is significant enough to impair his or her lifestyle. There can be any number of deficits that culminate in the decision to go ahead with the surgery, such as difficulty driving at night, glare and halos around lights, poor reading, or not being able to see text on the TV. Once that point is reached, there are a number of decisions that must be made concerning the procedure. If you have cataracts and are anticipating surgery, I want to assure you that I will help you through this process and recommend the choices that are best suited to both your unique lifestyle and your financial requirements.

I have an interactive video program loaded on an office iPad for you to watch. After you have viewed the video, I will personally discuss your options with you and answer your questions. The broad outline of cataract surgery is that you only ever do one eye at a time and usually, if indicated, surgery on the second eye is performed about 2 weeks later. Cataract surgery need only be performed once in a lifetime. It is important to me that I understand each of my patient's individual needs so that you will be happy with the outcome. I will recommend the choices that will ensure not only the best possible outcome but also provide a better, improved lifestyle for you. Informed patients are happy patients. 🧐

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.

A new IOL product that I have started to use with increasing frequency is the Alcon VIVITY IOL. This is a monofocal IOL with "extended depth of field." As a monofocal IOL, it is free of the potential side effects of multifocal diffractive IOL's, but still provides for intermediate vision along with distance vision. With the VIVITY IOL, low power reading glasses are still

needed but most daily visual tasks can be done free of gasses. VIVITY is also available in a TORIC version for correction of astigmatism.

Another 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

Fortunately, this past year was a "quiet" year with no retirements. Christian, who replaced Jeff, has been a gem. I get positive feedback from literally every patient Christian sees. He is an excellent listener, relates and connects to all, and has an engaging demeanor that everyone loves. He has been a wonderful addition to my practice, loves Santa Barbara, is constantly learning and looking to improve his skills, and has a real passion to help people.

My bookkeeper Rindi, having decided retirement is not for her, has settled back into her Santa Barbara lifestyle. She is my interface with Medicare and all of the everchanging compliance issues that entails. Thank goodness she is willing to navigate the maze. It is no easy task.

A special nod to both Claudia and Peggy, my surgical schedulers. They have difficult jobs juggling schedules, paperwork and answering your questions. We try to make the process seamless but it is their



hard work, diligence and kindness that brings it all together. They do a great job.

Linda, my receptionist, is extraordinary in her handling of the front desk. This is not an easy thing to do considering how busy we are! Linda checks on insurance and gets the correct tests performed in a timely manner, while being polite, respectful, efficient and informative. Plus, on Fridays, she changes hats and works with me in the LASIK suite. She is a great multi-tasker.

And of course, my continuing gratitude to Edgar, Yessi, Claudia Q, Charlotte and Liz for their commitment, professionalism, and great work ethic!

Allegretto EX 500 Excimer Laser

2022 marks the 26th year I have performed LASIK and PRK. For the past year I have been using the Allegretto EX 500, my fifth excimer laser. I am more excited about it now than when it was first installed. It is an upgrade from my previous Allegretto, which is manufactured in Germany. What sets the Allegretto EX 500 apart, and why it is the gold standard of excimer lasers, is its speed, accuracy, customization and precision. It is the only FDA approved laser for topography driven LASIK. The EX 500 is the first excimer laser to offer Wavefront technology, allowing a customized treatment for the unique corneal irregularities and aberrations that each patient may have.

The EX 500 runs at 500 hertz, which means it emits 500 laser pulses per second. All the other laser platforms take about 15 seconds to perform one diopter of correction. This means that on average, it takes those other machines 1-2 minutes of laser time to accomplish what the EX 500 can do in 1.4 seconds. The average ablation time for the EX 500 is 3-10 seconds. In addition to its speed, the EX 500 has "Perfect Pulse" technology, meaning each and every pulse is calibrated and safety checked at 3 positions before the laser pulse is delivered. It also has an automated eye tracking system that operates at 500 hertz, which is 7 times faster than you can move your eye. Finally, the EX 500 has FDA approval for the highest levels of correction for nearsightedness, farsightedness and astigmatism. That is significantly greater than any other excimer laser. Just fabulous

technology, and to my knowledge, I am the only ophthalmologist in Santa Barbara that has one.

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

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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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 Cataract Surgery

After cataract surgery, it is not uncommon to hear the patient comment that the procedure was easier than what they remember for their parent or grandparent. So true. I thought it would be fun to take

a look at advances in cataract surgery over the last few generations.

When I came to Santa Barbara from my training in Boston, all the eye surgery was done at St Francis Hospital. You were admitted into the hospital the night before surgery and could count on a three-day hospital stay. Surgery typically took about an hour. Anesthesia was administered with a long needle placed behind the eye, while a Honan balloon was placed over the eye, exerting pressure to help diffuse the anesthetic and soften the eye. The surgery called for an almost 180-degree incision, which was ultimately closed with 9 sutures. The cornea was peeled back to expose the cloudy lens. The cataract was removed with a freezing cryoprobe. Implants were in the early stages of development and limited to anterior chamber IOLs that sat in front of the iris.

The calculations for the correct IOL were crude and it would be rare to be close to the correct power IOL, especially considering the induced astigmatism created by the large wounds and sutures. The eye would be bandaged for the first month with little improvement in vision. After 4-6 weeks, the sutures would be selectively removed. Sometime later, new glasses would be prescribed. Surgery on the second eye would be months to years later.

Today, cataract surgery is performed as an outpatient without a local anesthetic block. Anesthesia is administered by topical drops and a gel. The incision is 2.4 mm (1/10 inch), is self-sealing (without sutures) and is commonly performed with a FEMTO second laser. Since the small incision is astigmatically neutral, pre-existing astigmatism can now be corrected with the FEMTO second laser or a premium (Toric) IOL. The correct axis of the astigmatism is determined by Verion and the correct power of the IOL is verified with ORA, having originally been determined by ARGOS. Surgery takes 10-12 minutes, it is painless, there is no bandage at the end of surgery and you are able to bend, lift and exercise the day after surgery. Surgery on the second eye typically follows 1-2 weeks later.

Now that being said, surgery is still surgery, and the only “minor” surgery is when it is performed on someone else. Surgery incites an inflammatory response and the eye still needs to heal, which usually takes a few weeks. Complications are much rarer, but with any surgery there is always a risk of infection. Other, infrequent, complications can include a rupture



of the cataract capsular bag, or inflammation of the retina - called Cystoid Macular Edema (CME). In spite of the inherent risks of this surgery, the advances I have experienced over the course of my career are truly magnificent! Hats off to the innovative scientists and researchers who have made it all possible. 🍷

Social Media

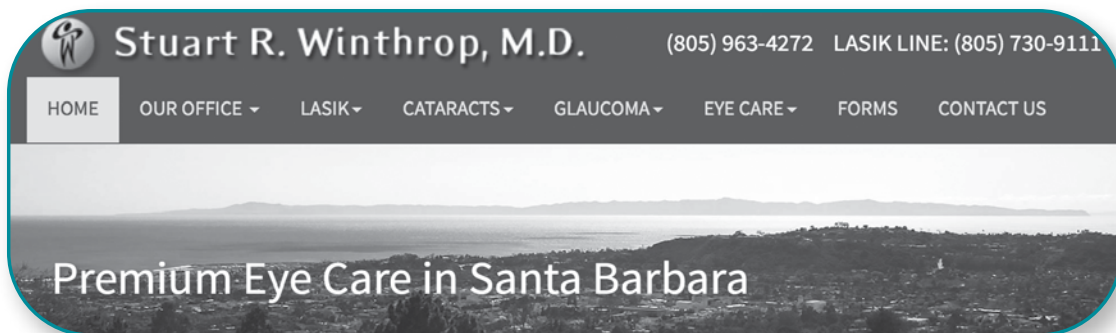
Many new patients find their way to my office via social media. We have always encouraged our LASIK patients to post about their experiences on Yelp or Facebook, but with the rapidly changing ways in which we all make use of the Internet, even more new avenues for finding professional referrals are augmenting 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. 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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