

New approaches to patients with lens opacities:

HOW CAN WE HELP OUR OLDER PATIENTS SEE WELL?



In a recent round table discussion with some of the San Francisco optometrists, the following observations were made:

- at least a third of patients in primary eye care practices are 50 y.o. and older
- this number is increasing
- the older the patients get the more likely their vision worsens due to cataracts
- the older the patients get the less likely they are to proceed with cataract surgery despite worsening vision
- younger patients are more likely to undergo cataract surgery when it is recommended to them

Older patients, those in their late 70's, 80's, and 90's, may be more reluctant to undergo surgery than younger patients because they may fear intra-operative morbidity, especially if they have conditions that put them at higher risk for intra-operative cardiovascular or pulmonary incidents. They may fear problems during recovery. They may not want to inconvenience their family in taking time off to take them to doctors. Some may feel they don't have much longer left to live and see no reason to have what they may perceive as elective surgery during this time.

And yet, the majority of older patients want to lead active and vital lives. They cherish their independence and want to continue driving. They want to enjoy reading, knitting, sewing, golf, theater and opera. Vision loss due to lenticular opacity may proceed slowly and insidiously. They may, therefore, not attribute their decreased mobility and declining energy to slowly deteriorating vision. They may feel that they are simply getting older and that slowing down is a natural consequence of getting older and not the result of suboptimal vision. Once the cataract surgery is performed

in one eye, however, most patients invariably want the other eye operated on immediately – the difference is so remarkable to them.

Why are we waiting then to recommend cataract and lens replacement surgery? How can we present cataract and lens surgery to patients early, before their BSCVA is worse than 20/40, so that they have many years to enjoy good vision and all the health and lifestyle benefits it brings? How can we encourage patients to proceed with lens replacement while the lens opacity is mild, the surgery is faster and easier, there are no concomitant eye conditions such as glaucoma or retinal degeneration to delay recovery, the patient is taking fewer medications, the pupil dilates easily and stays dilated during surgery, the patient is strong and healthy and the recovery is quick? The answer to these questions is – education. Educating the patient early and often helps to dispel myths about cataracts, about lens opacities, about lens surgery, about recovery, and it encourages the patients to proceed with treatment in a timely manner.



Patient counseling – talk about lens changes early with every patient

Telling a patient they have a cataract may be daunting. They often perceive the news as a diagnosis of “you are getting old.” They may associate cataracts with their parents, their old aunts and uncles, with the old-fashioned surgery of staying in the hospital for days, may be even with aphakic spectacles. They don’t want to hear it. They cringe when we say it. We want to make them feel better. So, we immediately follow our diagnosis with “don’t worry, the cataracts are part of the natural aging process and you may not need surgery for 10 to 15 years.” In saying so, the surgery is inadvertently presented in a negative light, postponement is inevitable, and the door to discussion may be closed until the patient becomes significantly incapacitated by symptoms or until their visual acuity drops below the

Symptoms of lenticular opacities that may be relieved by cataract and lens replacement surgery

- Glare
- Decreased contrast sensitivity
- Chromatic disturbances
- Multiplopia
- Binocular imbalance

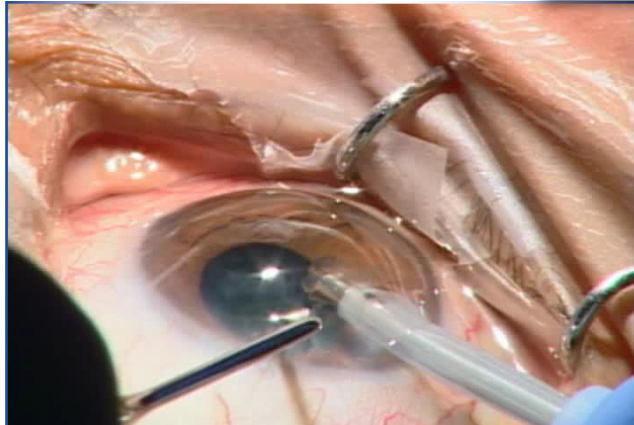
level approved by the state DMV for driver’s license renewal. At this point, the patient is different – a much older patient who may be more reluctant to undergo treatment than when they were 10 years younger and felt strong and healthy. We may begin to wonder why they wouldn’t want to follow our surgical recommendation now that they “need it.” Here are some helpful strategies in counseling the patient so that they are more likely to follow our recommendation early.



TIPS ON PATIENT COUNSELING TO HELP WITH TIMELY CATARACT AND LENS REPLACEMENT SURGERY

- Make the discussion of lens changes part of the presbyopia discussion with every patient. For example – “as the lens gets less flexible over time, it also changes color and density. At first, you will need reading glasses, but over time, you may notice that vision, even with glasses, becomes not as sharp as before. You may notice that you need to increase the light when you read, that the colors become faded, and/or headlights get glary and it becomes difficult to drive at night.”
- Explain the effect that lens opacity, increased density, and change in color may have on both, the visual acuity and the quality of vision
- Let the patient know that the changes in lens and consequently their vision will be insidious and that by the time their symptoms are pronounced, the lens surgery may become more complex
- Reinforce to them that early surgery means easier surgery, better outcomes, and faster recovery
- Let the patient know that visual acuity does NOT have to be “really bad” or their cataract have to be “ripe” or “ready” before surgery is performed. Studies show that the quality of vision can be improved even if patient’s visual acuity is 20/20.¹⁻⁴
- Ask the patient about their activities and if they’ve experienced any changes. Patients may be reluctant to spontaneously volunteer that they are not playing golf as often as they used to or that they haven’t renewed their season tickets to the opera. They may attribute their lower activity level to slowing down with age and may not necessarily associate it with declining vision. Unless you ask them, they may not let you know.
- Consider administering Visual Function 14 (VF-14) Questionnaire developed by National Eye Institute to assess quality of life and measure visual function in patients with cataracts, even the mild opacities, and even in the presence of 20/20 visual acuity.¹
 - VF-14 score has been shown to be the strongest predictor of decreased satisfaction with vision in patients with lens opacities. In contrast, the correlation between the Snellen Visual Acuity and satisfaction with vision in these patients was found to be 0⁵
 - A score of 75 or less on the VF-14 correlates with 90% chance of dissatisfaction with vision in patients with cataracts⁵
 - A score of 90 and above is a threshold above which patients are unlikely to benefit from cataract surgery¹
- Let the patient choose what financial consideration makes sense to them. Let them know that insurance will pay for cataract surgery if visual acuity is at the certain level. However, they need to be aware that cataract and lens surgery can be performed before the visual acuity gets to that level. The surgery will be easier for the patient and the recovery will be faster, but there will be an out-of-pocket expense.

THIS IS NOT YOUR FATHER'S CATARACT SURGERY



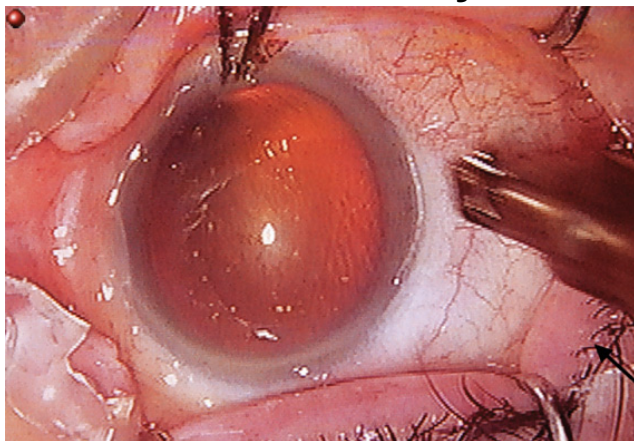
Topical anesthesia, no stitch, no patch modern cataract surgery

Comparison between modern cataract and lens replacement surgery vs. surgery performed in the past.

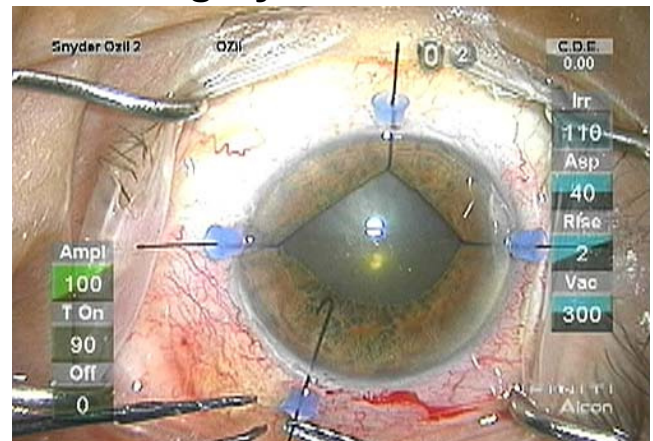
Modern surgical techniques optimize refractive outcomes, patient safety, and comfort.

Cataract surgery in the past
Retrobulbar block or other injections
30 minutes and greater
Large and wide incision extending into sclera
Multiple sutures and leaky wounds
Overnight patch
Cataract/lens replacement surgery today
Topical anesthesia
10 minutes or less for most cases
Sub 3 mm clear cornea incision
Suture-less, self-sealing incision
No patch (patient can see right away)

Early vs. Late Cataract Surgery



Early cataract surgery – wide pupillary dilation allows for excellent visibility and safe capsulorhexis. Red reflex allows for safe removal of the lens. Low nuclear density facilitates quick lens removal with minimal phaco energy, minimal effect on the cornea, and minimal postoperative inflammation with low risk of macular edema



Late cataract surgery – small pupil may require intraocular instrumentation with iris rings to achieve adequate opening. Dense cataract decreases visualization and ease of nuclear removal. High phaco energy and time may result in corneal edema postoperatively and increased intraocular inflammation with increased risk for cystoid macular edema

Early cataract surgery	Late cataract surgery
Nucleus is soft, requiring less ultrasound energy and less time for removal	Nucleus is hard, requiring more ultrasound energy and more time for removal
Minimal effect on corneal clarity and health of other eye structures	Significant effect on corneal clarity and health of other eye structures
Intra-operative visibility is excellent resulting in safe surgery	Intra-operative visibility is reduced, requiring special dyes to perform surgery, and increased risk of the effect on other eye structures
Pupil dilates well and stay dilated during surgery allowing for clear visibility and easy lens removal	Pupil may not dilate well and may not stay dilated, requiring special hardware to be used during lens removal surgery with significant effect on surrounding ocular tissues
Concomitant ocular morbidity is usually absent	Concomitant ocular morbidity (diabetic retinopathy, glaucoma, macular degeneration, retinal atrophy, etc) may be present
Easy and uncomplicated surgery allows safe placement of special IOLs	Complex surgery and co-existing ocular morbidity may preclude placement of special IOLs
Patient is healthy and is on few medications resulting in a straightforward surgical process and recovery	Patient is less healthy and may be on multiple medications resulting in a more complex surgical process and recovery
Minimal corneal swelling postoperatively resulting in good visual acuity right away	Cornea may be swollen postoperatively resulting in slow recovery of vision

Guidelines to IOL selection with currently available IOLs

Desired Refractive Outcome	IOL
Plano distance OU	<ul style="list-style-type: none"> • Monofocal IOLs OU with Limbal Relaxing Incisions (LRIs) if corneal astigmatism is less than 1.5D • Toric IOLs OU if corneal astigmatism is greater than 1.5D
Monovision	<ul style="list-style-type: none"> • Monofocal IOLs OU with Limbal Relaxing Incisions (LRIs) if corneal astigmatism is less than 1.5D • Toric IOLs OU if corneal astigmatism is greater than 1.5D
Distance and intermediate (computer) vision	• Crystalens OU +/- LRI's for astigmatism
Distance and near (reading) vision	• ReSTOR IQ 3.0 OU +/- LRI's for astigmatism

A silver lining – predictable refractive outcomes

The hallmark of modern cataract surgery is NOT ABOUT GETTING PATIENTS OUT OF GLASSES. It is about achieving a predictable refractive outcome. This is accomplished by a flawlessly performed surgery, by matching the right IOL to the right patient, and by having low threshold for laser vision correction enhancement for residual refractive error, if necessary, to give the patient the refractive outcome they desire. Most patients who have been successful in adapting to monovision will do well with a monovision refractive outcome goal. Special considerations are given to patients with previous corneal refractive surgery.

- Previous LASIK or PRK – either monofocal or Crystalens IOL only, no multifocals are recommended
- Previous RK – monofocal IOL only, no Crystalens or multifocals are recommended

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