

# The Patient Experience in a Successful Refractive IOL Practice

It is much easier to handle a situation postoperatively if we have reviewed the many possible outcomes beforehand.

BY JOHN F. DOANE, MD

Some patients consider the symptoms of presbyopia to be the worst experience that has ever happened in their lives. I consider having to explain presbyopia to patients or laypeople as the worst experience that I have had to endure in my clinical practice. Frequently, when the discussion starts, the patient and significant other are confused; by the time it ends, they are overwhelmed. These discussions with patients undergoing laser vision correction have troubled me for more than a decade and have motivated me to effectively communicate the concepts, natural progression, and prognosis of presbyopic symptoms to patients. Importantly, this talk is a catalyst to discussing which surgical option makes the most sense for an individual patient.

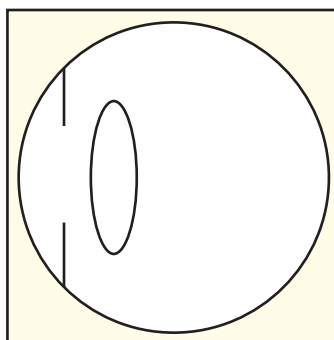


Figure 1. Schematic of an eye with the cornea and lens to the left and the retina to the right.



Figure 2. Add power to see at near after age 40: x-axis = age; y-axis = add power required.

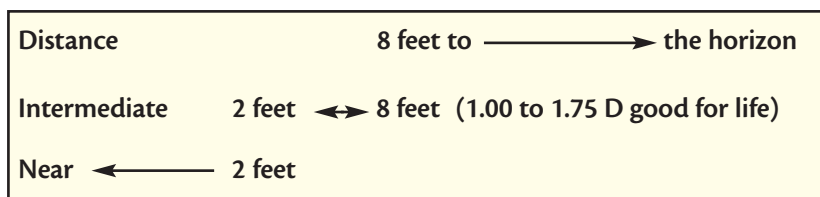


Figure 3. Descriptor of three focal points: distance = 8 feet to the horizon, intermediate = 2 to 8 feet, and near = 2 feet.

## KEEP IT SIMPLE

My first goal in the initial consultation is to very simply draw the optical mechanics of the eye (Figure 1). I explain to the patient that the cornea and lens focus light into the eye, and the retina is like the “film” in a 35-mm camera. I tell him that the cornea is a fixed optic, but the lens can change in order to focus up close. Now for the first bombshell: I tell the patient that at age 40 and beyond, his focusing ability will decrease (Figure 2). For me, it has been helpful, if not relationship-saving, to tell each patient that everyone will experience this process after age 40. No one is immune to this progression.

## FOCAL POINTS

The next step in the refractive preoperative workup that needs to be addressed is the patient’s focal-point needs after surgery. This conversation sets the foundation for the patient to recognize and decide what optical aides, if any, he is willing to live with for the rest of his life. Patients must understand that there are three basic focal-point ranges used on a daily basis. Although this is an obvious concept, I believe an educated and informed patient is an asset to both himself and the surgeon post-operatively. I describe distance (driving vision) as the ability to view from 8 feet to infinity, intermediate (dashboard, computer screen, cell phone, PDA) as viewing ability from 8 feet to 2 feet, and near (reading documents) as 2 feet and closer (Figure 3).

I then describe historically what standard distance monofocal IOL surgery has provided patients. I try to illustrate the vision that the patient will obtain both uni- and bilaterally, depending on which IOL we select based on the end-target refraction. If we treat the right and left eyes for plano, we can show the patient that he will have both eyes for distance vision (Figure 4). The monofocal pseudophakic patient will need glasses for near tasks, and his need for correction may be unpredictable for intermediate tasks. I handle the issue of intermediate vision case by case, depending on the unique optics of a patient’s eye.

## TOLERATING MONOVISION

The first opportunity to suggest something other than creating iatrogenic presbyopia (ie, implanting monofocal

D	R & L
I	??????
N	Glasses

Figure 4. Descriptor that both the right (R) and left (L) eyes will be for distance (D), that near (N) will require glasses, and intermediate (I) is patient dependent (question marks).

D	R
I	R L
N	L (-2.00 D)

Figure 5. Descriptor showing the right eye (R) for distance (D) and the left eye (L) with a -2.00 D refractive error will provide near (N) focus, and both eyes (R and L) will provide intermediate (I) vision.

D	R L
I	R L
N	R L

Figure 6. Descriptor showing that both the right (R) and left (L) eyes will provide distance (D), intermediate (I), and near (N) focal points either independently or simultaneously.

IOLs with plano sphere refraction), is the discussion of monovision. In my experience, approximately 50% of patients will tolerate monovision happily. In this dialogue, using the distance, intermediate, and near plot (Figure 5), I again explain that if we select the right eye for plano and the left for -2.00 D, that the right eye will provide distance focus, the left will provide near focus, and the combination of the two will provide intermediate. With this choice, I make it very clear that at least 15% of patients will require glasses when driving at night, some may want reading glasses on occasion to “feel more balanced,” and roughly 1% of patients will not like monovision and will require both eyes to be set for a plano sphere refraction.

At this point, I have presented the same information to the patient as I did before presbyopic IOLs became available. If I stopped here and did not give the presbyopic IOL talk, I will have shortchanged the patient and not provided him with all available options. If presbyopic IOLs are not discussed or at least described even briefly, this omission may later create distrust in the physician-patient relationship.

## THE GOAL

I show patients the ideal goal for presbyopic IOLs (Figure 6). In this scenario, we want both eyes to see at distance, intermediate, and near equally and at a very high level. I firmly believe patients want and expect near-perfect vision (at least 20/20) at distance, intermediate, and near with essentially no or minimal unwanted subjective visual phenomenon. At present, there is not an individual presbyopic IOL that will provide this type of vision every time for every patient, but there are techniques to maximize overall visual function. Accommodative IOLs such as the Crystalens (Eyeonics, Inc., Aliso Viejo, CA) involve targeting plano sphere in one eye and slight monovision (-0.50 to -1.00 D) in the other eye. For multifocal IOLs, either mixing the Acrysof

Restor IOL (Alcon Laboratories, Inc., Fort Worth, TX) and the Crystalens or the Acrysof Restor and the Rezoom IOL (Advanced Medical Optics, Inc., Santa Ana, CA) can compensate for the weakness of one lens with the strength of the other.

### POSSIBLE CONCERNS

Finally, I tell the patient there are two issues that may arise despite a perfect surgery. I tell him there is a 20% chance that I will perform YAG laser capsulotomy in the first year to improve his vision at distance, near, or both. I also emphasize that the best results occur in most cases when the final refraction is plano sphere from target with optimal refraction postoperatively and that he may require laser vision correction to perfect the unaided vision. For me, the chance for this correction is about 20% per eye.

### IN SUMMARY

The information in this article may seem somewhat tedious, but it is complete, and I have found it to be essential for a healthy physician-patient relationship. At the conclusion of my discussion with the patient, I date and sign the document and place it in his chart.

It is not uncommon for patients to ask for a copy of this sheet to review with their spouse. Until we have a lens that with 99% certainty can provide 20/20 or better unaided vision for distance, intermediate, and near in each eye (separately and with little-to-no unwanted subjective symptoms), surgeons and their staff should educate all pseudophakic IOL patients using the guidelines in this article, because they can minimize patient misunderstandings. I have elected to overeducate before surgery, as I find it much easier to deal with a patient and situation postoperatively if we have reviewed as many outcomes as possible in advance. ■

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