Not Using Multifocal IOLs? This Lens Is a Good Start

Notes from an early adopter of multifocal technology

BY JOSEPH L. PARISI, MD, FRCSC, FACS

Dr. Parisi, who has performed more than 20,000 advanced cataract and refractive surgeries, is chief ophthalmologist and medical director at Clemson Eye, which serves patients throughout upstate South Carolina. Dr. Parisi is a paid consultant to Alcon.

I was an early adopter of multifocal IOLs, and our practice has experienced tremendous growth with the technology. However, some surgeons who tried lenses in this category when they were first introduced were unsatisfied with the results so they stopped using them. The evolution of the options that has taken place in the intervening years makes this a good time to reconsider. For example, the AcrySof® IQ ReSTOR® +2.5D multifocal IOL with the ACTIVEFOCUS™ design (Alcon) is a much different lens than previous-generation multifocals. It's much easier to use and provides good results. Here, I explain why and share strategies that have helped our practice succeed with IOLs designed to give patients reduced dependence on glasses.

■ **How the ACTIVEFOCUS™ design is different.** This lens fits under the umbrella of low-add multifocals, but it stands out because of the improved quality of distance vision it provides, something that had been lacking with earlier options. The central optic is 100% distance-directed, essentially the same as a monofocal. Outside of that area, there are fewer diffractive steps and they are farther apart. The area of apodization is smaller, and the peripheral area of distance focus is larger. All of these changes combine to produce excellent distance vision and reduce the impact of multifocality on quality of vision. The near-vision advantages of multifocality are achieved with uncompromised distance vision for sharp, clear images.

■ **Patient selection and education.** In our practice, everyone is a candidate for a multifocal IOL until proven otherwise. Ideal candidates for the ReSTOR® +2.5D IOL with the ACTIVEFOCUS™ design are those who have a distance-dominant lifestyle but also want to have the decreased spectacle dependence that comes from having some multifocality. As with any advanced IOL, patients shouldn't have any ocular pathology that could interfere with best possible postoperative vision, such as moderate or severe glaucoma that compromises contrast sensitivity, macular degeneration, epiretinal membrane, or corneal pathology. In some cases, dry eye should be addressed prior to surgery to help ensure the best outcome. With prior lenses, it was necessary to reduce corneal astigmatism to significantly low levels, ideally less than 0.50D. However, with the FDA approval of the ReSTOR® +2.5D toric IOL with the ACTIVEFOCUS™ design, we will have a chance to address any patients with astigmatism.

Also, patients who may receive the ReSTOR® +2.5D IOL with the ACTIVEFOCUS™ design should be accepting of the occasional need for reading glasses, not looking for a guarantee of full-time spectacle freedom. They should have realistic expectations as to how the lens will function. The latter includes an awareness of the potential for glare and halos, i.e., rings around lights, that they may notice postoperatively. These optical effects are less common with the ACTIVEFOCUS™ design than they are with some other advanced lens designs, but some people do notice them. I show every patient a plastic model of the lens that has the diffractive steps/rings on it. I tell them this is how the lens is designed; when they look at a light through it, it's normal to see some rings. Based on my experience with this lens, I feel confident telling patients that even if they're conscious of the rings, they'll most likely forget about them after a while. When patients know preoperatively they may see some rings, they don't consider it a complication, and it certainly saves on subsequent chair time.

We begin by providing patients with information about cataract surgery before they come in for their consultation. Via snail mail or e-mail, we send them animations and registration materials. We let them know what to expect at their consult, that we'll be performing tests to help plan their surgery, and what types of IOLs we offer. To streamline the patient selection process and facilitate our discussions with patients, we include a lifestyle questionnaire (Figure 1) with the information we send out. It helps us to zero

See Important Product Information about the AcrySof® ReSTOR® Multifocal IOLs on page 4

Clemson Eye

Lifestyle Questionnaire

Your Information

What is your name? _____

Visual Functioning

Do you have difficulty, even with glasses, with the following activities?

Reading small print, pill bottle labels, newspapers, books or the telephone book? Yes ☐ No ☐
Recognizing people when they are close to you? Yes ☐ No ☐
Seeing steps, stairs or curbs? Yes ☐ No ☐
Reading traffic signs, street signs, or store signs? Yes ☐ No ☐
Doing fine handwork like sewing, knitting, or carpentry? Yes ☐ No ☐
Writing checks or filling out forms? Yes ☐ No ☐
Playing games such as bingo, dominos or card games? Yes ☐ No ☐
Shaving or putting on your make up? Yes ☐ No ☐
Cooking? Yes ☐ No ☐

Symptoms

Have you been bothered by:

Poor night vision, color vision or double vision? Yes ☐ No ☐
Hazy and/or blurry vision? Yes ☐ No ☐
Seeing well in poor or dim light? Yes ☐ No ☐
Do you currently drive a car? Yes ☐ No ☐
Seeing rings or halos around lights at night while driving? Yes ☐ No ☐
Glare caused by headlights or bright sunlight? Yes ☐ No ☐
Do you do a lot of night driving? Yes ☐ No ☐ Somewhat ☐

On a scale of 1-5 (where 1 is none and 5 is a great deal), how much difficulty do you have driving:

1	2	3	4	5	
☐	☐	☐	☐	☐	during the day because of your vision?
☐	☐	☐	☐	☐	during the night because of your vision?

Lifestyle Considerations

What is or was your occupation? _____

List your favorite hobbies, sporting / recreational / outdoor activities? _____

Do you use a computer frequently? Yes ☐ No ☐ Somewhat ☐
Do you do a lot of close detailed work? Yes ☐ No ☐ Somewhat ☐
Have you ever tried monovision contact lenses? Yes ☐ No ☐ Now using ☐
If "yes", did/do you like it? Yes ☐ No ☐
Do you wear progressive/no-line bifocals now? Yes ☐ No ☐
Over your lifetime, have you generally been satisfied with your vision with prescription glasses? Yes ☐ No ☐

If "no", please explain: _____

Would you like to have, without glasses, good distance and near vision in good light, even if you might see some rings around lights at night? Yes ☐ No ☐ Maybe ☐
Have you had LASIK? Yes ☐ No ☐

Do you have any specific vision concerns? _____

Cataract surgery can be safely postponed until you feel you need better vision. If stronger glasses will not improve your vision, and if the only way to see better is cataract surgery, then do you feel your vision problem is bad enough to require cataract surgery now? Yes ☐ No ☐

Name (print): _____ Date: _____
Patient / Guardian / Guarantor

Signature: _____

12/10

Figure 1. To streamline the patient selection process, we provide a lifestyle questionnaire.

See Important Product Information about the AcrySof® ReSTOR® Multifocal IOLs on page 4

in on a number of factors, including whether patients have a near-dominant or distant-dominant lifestyle and whether postoperative glare or halo would be considered disturbing or tolerable.

When patients arrive at the office, they see a pre-evaluation counselor who talks about how surgery will be performed and provides more information about the IOL options. They also watch a video that reinforces the information. By the time they see me for the exam, they've already learned a great deal. After the exam, I give my IOL recommendation and we discuss it further if necessary.

While the preoperative patient education is crucial, it shouldn't end after surgery. In addition to making sure issues such as dry eye are in check, follow-up visits should be used to encourage patients and reinforce previously provided information as they work toward their vision goals.

■ **Refractive strategy.** For patients who ultimately choose the AcrySof® IQ ReSTOR® +2.5D IOL with the ACTIVEFOCUS™ design, my default refractive strategy is to use it bilaterally. I've never been a big fan of mixing different types of lenses, regardless of whether they're multifocal or monofocal. My results have been best when the same lens is used in both eyes. Initially, I expected that I'd want to use the AcrySof® IQ ReSTOR® +3.0D IOL in the non-dominant eye of my ReSTOR® +2.5D IOL patients to give them better near vision than bilateral ReSTOR® +2.5D IOLs would provide. I did that in some cases, and it worked well. However, I found that the patients with bilateral ReSTOR® +2.5D IOLs read very well, and I didn't feel the need to introduce the ReSTOR® +3.0D IOL, especially because the distance vison was superior with the ACTIVEFOCUS™ design of ReSTOR® +2.5D IOL bilaterally.

That said, if a patient specifically prioritizes near vision over distance vision, I'm not averse to implanting the ReSTOR® +3.0D IOL in the non-dominant eye, provided, of course, he or she meets all of the candidacy criteria. Finally, with range-of-vision lenses such as these, it continues to be important for the surgeon to individualize the A-constant for calculating IOL power and to ensure lens centration during surgery.

■ **Surgeon confidence and enthusiasm.** Few patients would choose an advanced IOL if they felt the surgeon didn't have 100% confidence in it. Therefore, it's important to convey confidence and enthusiasm about the IOLs we're recommending. Your positive attitude will flow to staff members and the patients with whom they interact. Knowing that the ACTIVEFOCUS™ design truly does improve the options we can offer patients makes it easy to discuss it in a positive light. That, along with quality outcomes, never fails to feed into patient satisfaction and word-of-mouth referrals.

■ **Visual acuity outcomes and patient satisfaction.** We track all of our visual acuity results and survey all of our cataract surgery patients after their procedures to learn how they view their experience with us and the IOLs they received. In a series of 38 patients who received bilateral ReSTOR® +2.5D IOL with the ACTIVEFOCUS™ design, binocular uncorrected distance visual acuity was 20/15 in 8%, 20/20 or better in 74%, and 20/25 or better in 100%. Binocular uncorrected near acuity (or best near acuity of either eye if binocular acuity wasn't measured) was J1 in 42% of the patients, J2 or better in 60%, and J3 or better in 86%.

When the same group of patients was asked how they would rate their postoperative vision without glasses, 92.1% reported their distance vision (e.g., watching TV, driving) as good, very good, or excellent; 86.8% reported their intermediate vision (e.g. computer, cooking) as good, very good, or excellent; and 63.1% reported their up-close vision (e.g., reading the newspaper, books) as good, very good, or excellent.

We've been very happy with our outcomes and survey responses pertaining to the ACTIVEFOCUS™ design. I suspect that for any practice considering adopting or re-adopting multifocal lenses, this lens would be a good place to start and build success.

See Important Product Information about the AcrySof® ReSTOR® Multifocal IOLs on page 4

ACRYSOF® IQ RESTOR® FAMILY OF MULTIFOCAL IOLS
IMPORTANT PRODUCT INFORMATION

CAUTION: Federal (USA) law restricts this device to the sale by or on the order of a physician.

INDICATIONS: The AcrySof® IQ ReSTOR® Posterior Chamber Intraocular Multifocal IOLs include AcrySof® IQ ReSTOR® and AcrySof® ReSTOR® Toric and are intended for primary implantation for the visual correction of aphakia secondary to removal of a cataractous lens in adult patients with and without presbyopia, who desire near, intermediate and distance vision with increased spectacle independence. In addition, the AcrySof® IQ ReSTOR® Toric IOL is intended to correct pre-existing astigmatism. The lenses are intended to be placed in the capsular bag.

WARNINGS AND PRECAUTIONS: Careful preoperative evaluation and sound clinical judgment should be used by the surgeon to decide the risk/benefit ratio before implanting a lens in a patient with any of the conditions described in the Directions for Use labeling for each IOL. Physicians should target emmetropia, and ensure that IOL centration is achieved. Care should be taken to remove viscoelastic from the eye at the close of surgery. The ReSTOR® Toric IOL should not be implanted if the posterior capsule is ruptured, if the zonules are damaged, or if a primary posterior capsulotomy is planned. Rotation can reduce astigmatic correction; if necessary lens repositioning should occur as early as possible prior to lens encapsulation. Some patients may experience visual disturbances and/or discomfort due to multifocality, especially under dim light conditions. A reduction in contrast sensitivity may occur in low light conditions. Visual symptoms may be significant enough that the patient will request explant of the multifocal IOL. Spectacle independence rates vary; some patients may need glasses when reading small print or looking at small objects. Posterior capsule opacification (PCO), when present, may develop earlier into clinically significant PCO with multifocal IOLs. Prior to surgery, physicians should provide prospective patients with a copy of the Patient Information Brochure available from Alcon informing them of possible risks and benefits associated with the AcrySof® IQ ReSTOR® IOLs. Do not resterilize; do not store over 45° C; use only sterile irrigating solutions such as BSS® or BSS PLUS® Sterile Intraocular Irrigating Solutions.

ATTENTION: Reference the Directions for Use labeling for each IOL for a complete listing of indications, warnings and precautions.

Alcon A Novartis Division