

Which IOL Would You Choose?

CRST Europe polled Editorial and Global Advisory Board members to find out which lenses they might select when they become patients.

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MICHAEL AMON, MD



When I undergo cataract surgery, I will choose an IOL with a long track record and well-documented excellent results concerning uveal and capsular biocompatibility. To ensure the IOL has favorable capsular performance, I will select an IOL with a 6-mm sharp optic edge and very short optic/haptic junction. This will inhibit the formation of posterior capsular opacification (PCO).

Regarding the optic material, I would prefer silicone; for the haptic material, I would prefer polymethyl methacrylate (PMMA). My preference for silicone is because of its high uveal biocompatibility and its provision of optical clarity with no progressive development of microvacuoles.

I would not require any blue-light filter because I am used to protecting my eyes with sunglasses; however, I would opt for an aspheric optic to compensate for my documented corneal spherical aberrations. My cornea has no significant astigmatism, and therefore I would not need a toric IOL. In order to avoid any dysphotopsia and other disadvantages described with multifocal IOLs, the optic should be monofocal.

Concerning my refractive result, for my dominant eye I would aim for emmetropia, and I would choose a mini-monovision strategy. I think this selection would provide me with excellent optical results for a long time.

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JOHN S.M. CHANG, MD



If I had a cataract, I would have a Tecnis ZMB00 (Abbott Medical Optics Inc., Santa Ana, California) placed in my eye. I currently use this same lens for my patients who undergo presbyopic lens exchange (PRELEX), and it works well. It causes fewer halos than other Tecnis models (ZM900 and ZMA00), and it still provides strong near vision.

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ARTHUR B. CUMMINGS, MB ChB, FCS(SA), MMed (OPHTH), FRCS(Edin)



I would choose the same IOL that I choose for my patients in routine cases, namely the AcrySof SN60WF IQ (Alcon Laboratories, Inc., Fort Worth, Texas). There are a number of reasons that I would choose this IOL.

First, I have seen the results that it delivers on a regular basis for my patients. Second, I like the hydrophobic acrylic material, and I like the ease of insertion and the gentle,

controlled unfolding within the capsular bag. Third, I like the stability of the IOL within the bag, both axially and radially. Fourth, there is minimal PCO with this IOL, and it has a true 6-mm optic diameter. Fifth, thanks to the high refractive index, the AcrySof is thin (less than 1 mm thick) and can be inserted through a small incision. For myself, I would opt for the IQ lens model because it provides increased depth of field due to the negative spherical aberration included in the lens optic. Finally, I like the fact that the IOL is one piece, thus providing great predictability and stability in terms of refractive outcomes.

As a target, I would aim for plano in my dominant right eye and -1.00 D in my left. This target typically produces a good deal of spectacle independence and, for me personally, the smallest compromise. If I had astigmatism, I would opt for the AcrySof Toric IOL.

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JACK T. HOLLADAY, MD, MSEE, FACS



When the time comes for me to undergo cataract surgery, I would choose the Tecnis 1-Piece IOL. Like all patients, I want to achieve optimal vision. Because my corneas have 0.25 μm of positive spherical aberration, the -0.27 μm of spherical aberration in the Tecnis lens optic is perfect for me.

I would target my right eye for -0.25 D (distance) and my left eye for -1.25 D (ie, mini-monovision) so that I could see most print up close and enjoy good distance vision without glasses. With this lens, I would also expect no nighttime dysphotopsias such as glare or halos and the best contrast sensitivity and night driving performance.

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RONALD R. KRUEGER, MD



My personal choice will be a monofocal IOL such as the AcrySof aspheric. The reason I would choose this lens is because I have greater desire for sharp distance acuity than for depth of focus. I might consider monovi-

sion with a -1.50 D target in the nondominant eye to increase my depth of focus, but this could be easily corrected with spectacles or contact lenses in the event I have trouble adapting to monovision.

In addition to monofocal lenses, I also routinely implant accommodating IOLs such as the Crystalens (Bausch + Lomb, Rochester, New York) and multifocal IOLs. However, I would probably not select either lens for myself. With the Crystalens, there is the small risk of tilt with capsular contraction. With multifocal lenses, diminished contrast sensitivity or glare symptoms may be present. When I implant premium IOLs, I selectively choose those patients who are best suited, and personally I am not quite sure I fit into this best-suited category for premium IOLs.

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MICHAEL A. LAWLESS, MBBS, FRANZCO, FRACS, FRCOPHTH



At age 54, I hope IOL implantation is still some way off for me. I previously had LASIK in my nondominant right eye, and for the past 6 years I have been -1.50 D in that eye and plano in my left; before surgery, my right eye was plano. I adapted to blended vision very well. I do not wear glasses for any activities, and I have almost no corneal astigmatism.

If I were to have cataract surgery now, I would ask for an aspheric lens aiming for my current situation of plano in the dominant left eye and -1.50 D in the right. I know that this level of correction provides me with the ability to function well for all activities, and when operating I can dial in -1.50 D to the right ocular of the operating microscope and have normal clarity and binocular visual acuity.

If my cataract develops at an age when I no longer perform intraocular surgery, I would request an aspheric multifocal IOL in each eye aiming for plano. The lens with which I am most familiar and most comfortable is the AcrySof IQ ReStor +3.0 D aspheric IOL, and this is what I would choose to have implanted in both my eyes. A compromise it is, but a compromise that would suit me with a near guarantee of spectacle independence, a high safety profile in terms of lens biocompatibility and stability, and a tolerable compromise in terms of low contrast acuity and nighttime halos.

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KHIUN F. TJIA, MD



I believe that we are on the brink of significant progress in lens design, with many new and improved IOLs coming to the market in the near future. My choice will hinge on the availability of these IOLs when I am ready for cataract surgery; however, I will respond to this question as if my cataract procedure is scheduled in the coming days.

I require a monofocal toric correction due to my 1.00 D of astigmatism. I would like an IOL with a proven safety track record, excellent uveal and capsular biocompatibility, and blue-light filtering (because of the more natural color perception this provides). At present, this would lead me to choose an IOL with hydrophobic acrylic lens material. This type of lens also has a lower risk for PCO. There is currently only one manufacturer with a yellow hydrophobic toric monofocal IOL on the market (Alcon Laboratories, Inc.), but this will soon change.

IOL manufacturing technology evolves quickly, and we will see dramatic changes in the near future. There will be a much wider choice of lenses available in a few years, hopefully providing better optical and mechanical properties and lower PCO rates. I hope to postpone my own cataract surgery for some time so that I may enjoy these enhancements in my own eyes.

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KJELL U. SANDVIG, MD, PhD



If I should need cataract surgery, my choice of IOL is easy: I would select the same standard IOL that I encourage my patients to consider, the AcrySof IQ Natural. At this time, I believe this lens to be the best IOL on the market.

My keratometric astigmatism is less than 0.75 D in both eyes, and therefore I do not need a toric IOL—as long as I can persuade my surgeon to place the incision in the steepest axis. I am a passionate offshore sailor, and

therefore the quality of my dark-adapted vision is important. Neither will I compromise on other visual qualities due to my occupation as a microsurgeon. Because of my visual requirements, I would exclude the AcrySof ReStor and instead choose a mini-monovision solution, targeting between 0.00 and -0.25 D in my dominant right eye and between -0.75 and -1.00 D in my left. I have experienced high patient satisfaction with such a solution and expect the same happiness myself.

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PAOLO VINCIGUERRA, MD



If I had to undergo cataract today I would like to have the AcrySof IQ ReStor +3.0 D aspheric IOL. I know that I have no higher-order aberrations, and my refractive error is very low (0.02 Snellen). Additionally, my visual acuity is 20/10, and I am myopic (refraction: -4.50 D sphere with no cylinder). My visual axis is perfectly centered over the pupil, and my pupil size varies from 4.1 to 5.5 mm (the perfect condition for apodized lenses).

I am accustomed to wearing -4.00 D glasses, leaving me with -0.50 D of myopia so that I can read at near and still have acceptable distance vision. If needed, I simply remove my glasses for reading. This situation works better for me than aiming for emmetropia and then always searching for my reading glasses.

I have implanted the latest version of the AcrySof ReStor in many of my patients, and I have not heard a single complaint. All seem to have excellent far vision (frequently better than 20/20) and report satisfaction with their near vision. ■

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