

# First Impressions of the Crystalens HD

BY UDAY DEVGAN, MD; RICHARD L. LINDSTROM, MD;  
JACK A. SINGER, MD; AND JEFFREY WHITMAN, MD

For each installment of "Today's Topics," section editor John F. Doane, MD, identifies a hot-button topic in cataract and refractive surgery and asks several experts to share their thoughts.

**What is your impression of the Crystalens HD? How does it compare to the Crystalens AT-45 and Five-O models?**

## UDAY DEVGAN, MD

The Crystalens HD lens (all models of the Crystalens from Bausch & Lomb [Rochester, NY]) has increased the range of vision for many of my patients. I have observed that it provides one to three more lines of near vision than the Crystalens Five-O. This improvement is significant, and I may discontinue using the Crystalens Five-O, except for patients who need a power that is not available with the HD platform. I typically implant the Crystalens HD bilaterally and augment the patient's near vision by targeting plano in his dominant eye and mild myopia (approximately -0.50 to -1.00 D) in his nondominant eye. After implanting my first 50 Crystalens HD IOLs, my A-constant decreased from 119.0 to 118.8, which allows me to achieve more accurate postoperative results. I expect that every generation of accommodating IOLs will be an improvement, and that we will have truly amazing lenses in the foreseeable future.

## RICHARD L. LINDSTROM, MD

The Crystalens HD retains the excellent distance and intermediate vision of the Five-O with an added benefit of improved near vision. My patients are achieving one to two lines better near vision than with the Five-O, and 100% see J3 or better when emmetropic. I am using an A-constant of 119, and it seems to work well so far. I create a 6.0- to 6.5-mm capsulorhexis, perform careful cortical cleanup, and ensure that the wound is well hydrated. At the end of the case, I inject carbachol diluted 5:1 with balanced salt solution to stimulate

accommodation and create loose zonules, which allows for posterior vaulting of the IOL and results in a miotic pupil. As a result, patients' first-day visual acuity is enhanced, and the incidence of IOP spikes is reduced. Patients need to practice reading with their operated eye for best outcomes. If they use readers all the time, their accommodative amplitudes will be smaller. For patients who have poor near vision after surgery, I instruct them to instill 1% pilocarpine three times daily for 1 to 3 months after the IOL's implantation to enhance accommodation. In many cases, this results in improved near vision. Mild blended vision or mini-monovision with the distance eye seeing nearly plano and the near eye targeted to a refraction of -0.50 to -0.75 D further enhances depth of focus.

"The Crystalens HD retains the excellent distance and intermediate vision of the Five-O with an added benefit of improved near vision."

—Richard L. Lindstrom, MD

## JACK A. SINGER, MD

To date, I have implanted 39 Crystalens HD IOLs, and all of the patients who received the lenses are 20/happy! I target a plano result in patients' dominant eye and plano to -0.35 D in their nondominant eye. The lens typically provides my patients with one to two more lines of near vision than they would obtain with the Crystalens Five-O, without compromising their distance or intermediate vision. I push plus on refraction, as these patients will accommodate and absorb minus like a 30-something-year-old. The HD lens is also tolerant of small amounts of spherical and cylindrical ametropia. I use the HD lens for all presbyopic corrections in which the IOL power is available. I still use the Crystalens Five-O, (however, for posthyper-

*(Continued on page 20)*

## TODAY'S TOPICS

*(Continued from page 17)*

opic corneal refractive surgery and forme fruste keratoconus eyes, because these corneas have additional negative spherical aberration, as does the HD lens.

### **JEFFREY WHITMAN, MD**

I think I have met premium lens nirvana with the Crystalens HD. The Crystalens AT-45 caused a lot of trials and tribulations that were partially remedied by the Crystalens Five-O. Unfortunately, my patients did not consistently achieve good near vision with the Five-O, so they often required LASIK or a piggyback lens to boost their near vision. Now, with the Crystalens HD, my patients routinely achieve the same excellent intermediate vision I observed with the Crystalens Five-O, but they are consistently seeing J2 or better at near. I followed 107 eyes in which I had implanted the Crystalens HD for an average of 18 days, and binocular data showed that 100% saw 20/25 (J2+) at intermediate and 96% saw 20/25 (J2+) at near. I implanted the Crystalens HD bilaterally in my administrator's eyes about 6 weeks ago. He previously wore glasses only for reading, and his vision improved to 20/15 and J1 without mini-monovision. Winner! ■

*Section editor John F. Doane, MD, is in private practice with Discover Vision Centers in Kansas City, Missouri, and he is Clinical Assistant Professor for the Department of Ophthalmology, Kansas University Medical Center. Dr. Doane may be reached at (816) 478-1230; jdoane@discovervision.com.*

*Uday Devgan, MD, is in private practice at the Maloney Vision Institute, and he is Associate Clinical Professor of Ophthalmology at the University of California, Los Angeles. He is a consultant to Bausch & Lomb. Dr. Devgan may be reached at (877) 999-3937; devgan@ucla.edu.*



*Richard L. Lindstrom, MD, is Founder and Attending Surgeon of Minnesota Eye Consultants, and he is Adjunct Professor Emeritus at the University of Minnesota in Minneapolis. He is a consultant to Bausch & Lomb.*



*Dr. Lindstrom may be reached at (952) 888-5800; rllindstrom@mneye.com.*

*Jack A. Singer, MD, is in private practice at Singer Eye Center in Randolph, Vermont. He is a consultant to Bausch & Lomb. Dr. Singer may be reached at (802) 728-9993; jack@singereye.com.*



*Jeffrey Whitman, MD, is President and Chief Surgeon of the Key-Whitman Eye Center in Dallas, Texas. He is a member of the speakers' bureau for Bausch & Lomb. Dr. Whitman may be reached at (866) 605-4455; whitman@keywhitman.com.*

