

Cataract & Refractive Surgery

TODAY

EUROPE

Crystalens HD™

First clinical experiences and insights
from the European experts

The Crystalens HD: Initial European Experience and Insight

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The Crystalens HD (Bausch & Lomb, Rochester, New York) is now available in Europe. This multipiece, silicone, posterior chamber accommodating IOL is indicated for the treatment of cataracts. Designed to mimic the natural crystalline lens, the Crystalens also treats presbyopia using 100% of available light rays at all distances, providing patients with the best quantity of vision at near, distance, and intermediate without compromising quality of vision or contrast sensitivity.

The HD is the fourth-generation Crystalens IOL. This premium lens has undergone a number of iterations since the first Crystalens design in 2003, including incorporation of the 360° square-edge, increased optic size (from 4.5 to 5

mm), modified shape of the haptic plates, and increased haptic arc. These refinements have improved the lens performance by increasing accommodation through greater plate motion, improving predictability, and providing excellent centration and fixation. The latest Crystalens HD features an enhanced accommodating optic to increase the accommodative arching effect. This design results in increased depth of focus for improved near vision, without comprising distance or intermediate vision.

The Crystalens has already gained widespread acceptance in the United States, with more than 150,000 lens implantations. Prior to the European launch, a limited number of European surgeons were involved in an international IOL registry project designed to collect data from

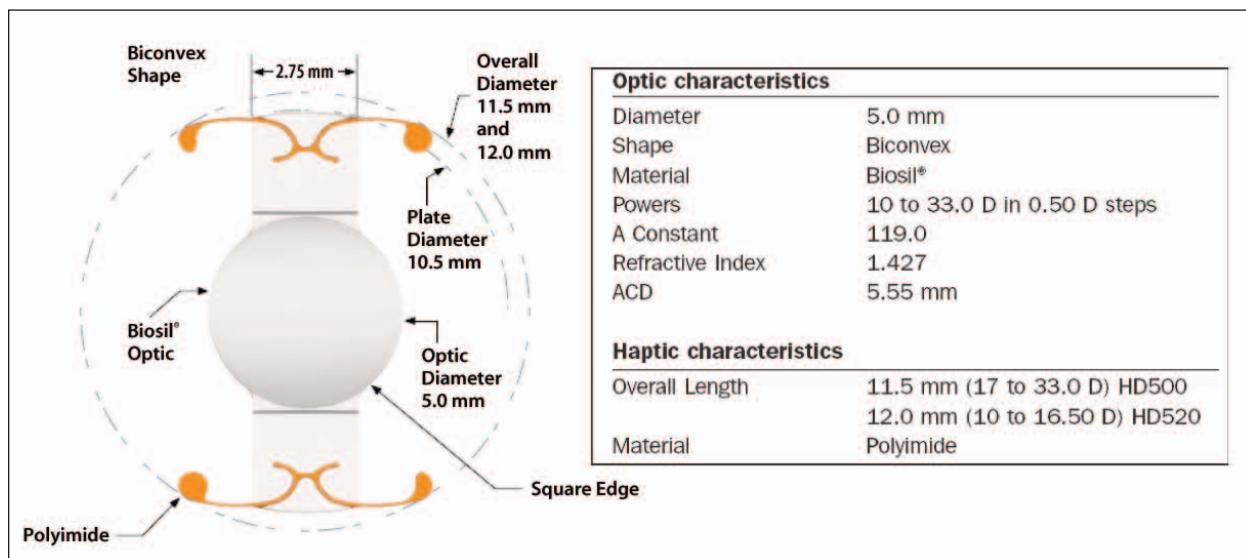


Figure 1. The design, optic and haptic characteristics, and basic characteristics of the Crystalens HD.

surgeons implanting the third-generation Crystalens Five-O, the first US Food and Drug Administration (FDA)-approved accommodating IOL, and more recently the Crystalens HD. During this year's Winter European Society

of Cataract and Refractive Surgeons (ESCRS) meeting in Rome, surgeons most experienced with implanting the Crystalens gathered to share their clinical experience with the Crystalens HD.

PATIENT SELECTION

Bellucci: This roundtable discussion is devoted to the Crystalens HD (Figures 1 and 2). This IOL addresses patient complaints with visual acuity at distance, near, and intermediate vision and provides pseudoaccommodation that has not been achieved with another IOL. We shall discuss a number of key subjects, including patient selection and education, recommendations for pre- and postoperative measurements, clinical outcomes, and pearls for lens implantation.

I would like to begin by inviting each panel member to comment on patient selection and education in his own area. Dr. Maus, how do you manage patients with the Crystalens HD?

Maus: Our office is in the center of Cologne, Germany, which has a population of approximately 1 million. With six other doctors in our practice, we see a lot of patients and do a lot of refractive surgery. We have many patients who are still working who come in for refractive surgery. Patients aged in their 50s are usually mild hyperopes, and they typically want spectacle independence—at least for distance or near vision. This is hard to achieve with LASIK. So, we have two choices. (1) For the patient who only wants to see at distance and be able to read, we implant a multifocal IOL and

tell him to wear glasses for intermediate vision. (2) For the working population, we would implant an accommodating lens because of the superior level of quality of vision, contrast sensitivity, and night driving.

We learned that one of the most important points is to reduce patient expectations—it is the popular concept of under-selling and over-delivering. We use a lot of written material so people can take the information home with them. At our office, we are currently seeing more patients choose the Crystalens HD.

Compared with multifocal IOLs, approximately 80% to 90% of our patients choose the Crystalens HD, especially because it does not sacrifice optical quality. It is an easy option to recommend to patients.

Bellucci: Dr. Hanneken, how do you present this lens to your patients? Do you mention its ability to provide near or intermediate vision as well as distance?

Hanneken: I practice with Dr. Maus, so we use a similar process. We noticed that the amount of patients who come in for cataract surgery are asking for multifocal IOLs as an alternative to glasses. Until recently, awareness of the Crystalens in Europe was minimal. But, we have recently seen an increase in the number of patients who opt for this lens.

CRYSTALENS HD: EUROPEAN ROUNDTABLE DISCUSSION

In addition to providing patients with written material, we recently conducted training to teach our staff how to properly recommend the Crystalens HD as well. If the patient's motivation is to gain spectacle independence, we explain the disadvantages of multifocal IOLs. For more active patients who require good intermediate vision, we suggest the Crystalens HD as the best option for them.

Bellucci: This is an interesting concept. More active people do need to see well at the intermediate distance, and people who need near vision probably are a separate part of the patient population. What about Greece, Dr. Kanellopoulos? Do you see the Crystalens HD as a cataract lens, a refractive procedure, or both?

Kanellopoulos: I think both. My practice is more the anterior segment, corneal transplant, refractive surgery practice. I have the honor, and difficulty, of treating approximately 30% to 40% of patients who are monocular cases. That creates a special population of patients where your choice of lenses has to be very strict.

Although the introduction of presbyopia-correcting IOLs over the past 5 years has brought many advantages to our field, this introduction has also brought some disadvantages. For example, European patients (in contrast to my experience in the United States) may come in for a cataract consultation with high expectations instead of us supplying the expectation to them. I spend more time trying to explain what cataract surgery is, what IOL options are available, and what the lenses can do, rather than discussing the options for seeing better at intermediate, near, and distance.

I may be very particular about contrast sensitivity and quality of nighttime vision, but for the patient population that I treat in Athens, it is an important issue for my practice. It has been the only bitter flavor that I have with multifocal IOLs because 10% of patients—which is significant for me—have quality of vision problems at night. I was unable to resolve these issues with refractive surgery or mixing-and-matching IOLs. At that point, we discontinued use of presbyopia-correcting IOLs until we were introduced to the Crystalens Five-O and now the HD. It opened a new frontier for our practice. I think the Crystalens HD is a great lens with good quality of vision at night, which immediately makes it a lens that I would incorporate into my practice invariably. Even in monocular patients, I would not think twice about using this lens for distance and for driving at night.

Bellucci: Most likely, all of us agree that the Crystalens HD can be implanted regardless of the condition of the contralateral eye, a situation not valid for



In the fall of 2008, 7% to 8% of my patients received the Crystalens. Now, 90% of patients receive a premium IOL, with 80% of these patients receiving the Crystalens.

multifocal IOLs. Dr. Daya, how many patients search the Internet for information on premium IOLs?

Daya: That is a good question. I think the Internet as a medium for patient queries continues to grow. In fact, about 55% of our inquiries are through the Internet and the other 45% are word-of-mouth. Now, the 55% of online inquiries do not translate into conversions—I wish they did. But, approximately 10% to 15% of those who inquire will come to us for the consultation.

Patients are looking for vision correction, and often they start with laser vision correction. Today's 50-year-olds are still active; they are looking for both vision correction and increased depth of focus. When they do inquire, we refer patients to our Web site, which highlights our results. We also send them printed material about lens-based surgery and the IOLs we offer. Therefore, when patients come in for their consultation, they already have an open mind. When a certain patient realizes that he is not a good candidate for laser vision correction and opts for lens exchange, I usually don't give them a choice of implant. Based on their patient questionnaire, I know what kind of psyche they have, and I make the choice accordingly.

Bellucci: Do you use a questionnaire to select patients?

Daya: Yes. Although it is not an extensive questionnaire like the Dell questionnaire, it asks for information regarding their activities, occupation, and desire for vision. If someone is going to put down a score of nine out of nine for night driving or computer use, I know that person is being unrealistic. We also ask how many hours a day they spend at the computer. If they are in that working group where intermediate vision is important, then they automatically get the Crystalens HD. Intermediate vision with this lens is superb. If the patient absolutely has to have near vision, then we may consider a multifocal IOL; however, more of our patients get the Crystalens. In the fall of 2008, 7% to 8% of my patients received the Crystalens. Now, 90% of patients receive a premium IOL, with 80% of these patients receiving the Crystalens.

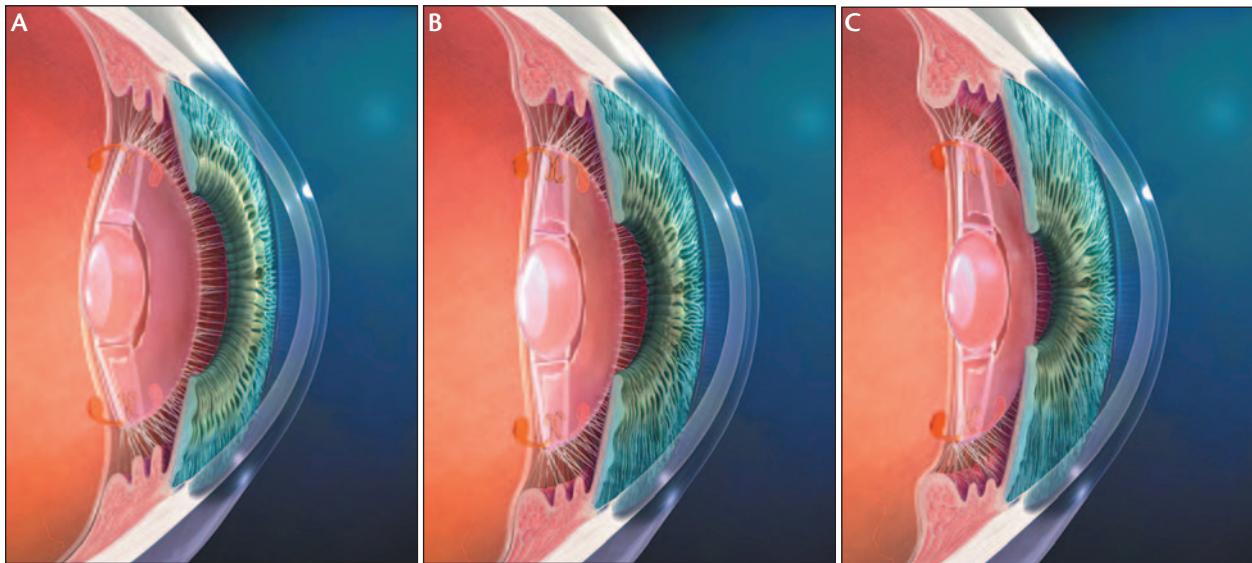


Figure 2. The (A) distance, (B) intermediate, and (C) near position of the Crystalens HD.

Bellucci: If the patient uses computers frequently, does intermediate vision substitute for near vision as the most important vision?

Daya: In terms of activity time, yes. But people also want to be able to read the menu without glasses while they are at a restaurant. There is no perfect solution for those people, but I agree that for most patients, the majority of their hours are consumed by intermediate visual tasks.

Bellucci: In patients with potential low visual acuity, multifocal IOLs reduce contrast sensitivity and may not be indicated. Dr. Mertens, would you comment on patient selection with the Crystalens HD?

Mertens: I do not have any problems putting in the Crystalens HD in patients with low visual acuity and a poor retina after surgery; however, I would not implant a multifocal IOL in that same patient because it compromises the quality of vision. With the Crystalens HD, patients can only gain from its ranges of vision. But I still implant both multifocal and accommodating IOLs.

We use a questionnaire to get a sense of what the patient's expectations are. Most patients come in for refractive laser surgery. But at 55 years old, refractive surgery is not a good idea. It takes a lot more time than it did a couple of years ago to counsel patients, and several assistants at my practice perform the consultations. Therefore, you can tailor your chair time when you see the patient. When you have to do it all yourself, it is too time consuming.

PREOPERATIVE MEASUREMENTS

Bellucci: Patient selection is just the first step of implantation. The second step is preoperative measurements to achieve the lowest possible postoperative refractive error. What preoperative measurements do you make prior to Crystalens implantation?

Hanneken: We do a complete range of preoperative exams—just as we do with all refractive patients.

Kanellopoulos: We do the same. Every cataract patient gets approached with a whole battery of tests. We use two laser interferometers (IOLMaster [Carl Zeiss Meditec, Jena, Germany] and Biograph [WaveLight AG, Erlangen, Germany]), topography, and endothelial cell counts. This provides the whole picture and simplifies IOL selection.



With the Crystalens HD, patients can gain from its ranges of vision.

Daya: Every patient is looking for optimal vision. Therefore, it is imperative to check everything. The patient is paying for value.

Bellucci: What if the cataract does not apply to the interferometer? Would you rely on immersion biometry?

Mertens: Actually, we rely on laser interferometry

and immersion scans for every case. If they don't match, we do them again. In most cases, there is no problem; however, small discrepancies between the laser interferometry and immersion scans may be seen in denser cataracts or patients with high myopia. Then, you have to ask yourself: Is it better to go forward with the premium IOL followed by a laser touch-up?

Measurements must be accurate. You must also calculate the axial power. The formulas we use depend on the axial length and the keratometry (K). We also

check the tear film. In this premium-IOL market, it is incredibly important to check the tear film.

Kanellopoulos: In all premium IOL measurements, we also include a meticulous optical coherence tomography (OCT) of the macula. It is important to allow these patients to have confidence in the outcome. We have seen a high percentage of epiretinal membranes in female patients over 55 years of age. It becomes a great disappointment for the patient to be diagnosed postoperatively of a limitation to the

GETTING STARTED WITH THE CRYSTALENS HD: FIVE RECOMMENDED GUIDELINES FOR SUCCESS DURING YOUR INITIAL 10 EYES

1. Preoperative measurements

- Use the IOLMaster (Carl Zeiss Meditec, Jena, Germany) or manual keratometry to obtain keratometry (K) readings before applying any eyedrops, applanation, or corneal manipulation.
- For contact lens wearers, contact lenses must be removed for the appropriate amount of time to allow the cornea to return to a stable state.
- Use the IOLMaster or immersion ultrasonography to measure Axial Length.
- Make sure Axial Lengths and K readings correlate with the patient's oldest known refraction.

2. Targeting

- Utilize the Crystalens nomogram for eyes 22 mm or shorter.
- Dominant eye: Target slightly plus (between plano and +0.25). If the calculation does not predict plano, select the lens power that predicts the first plus above plano.
- Nondominant eye: Target slightly minus (between plano and -0.25). If the calculation does not predict plano, select the lens power that predicts the first minus below plano.

3. Lens power calculations

- The SRK-T formula will be used for eyes with Axial Lengths measuring 22.01 mm or longer, and the A-constant for the Crystalens HD (HD500 and HD520) is 119.00.
- The Holladay II formula will be used for eyes with Axial Lengths measuring 22 mm or shorter and in eyes with mean K flatter than 42.00 D or steeper than 47.00 D, independent of the Axial Length.
- Anterior chamber depth for the Crystalens HD is 5.55.

4. Submit printouts

- Submit both the Bausch & Lomb-Datalink preoperative form and the A-scan or IOLMaster printouts to your Crystalens outcomes specialist for verification of IOL powers. Please indicate your lens choice and predicted outcome.

5. Surgical and postoperative care, follow-up

- Create a symmetrical capsulorrhesis measuring 5.5 to 6 mm.
- One day and 10 to 14 days postop, perform testing listed on the Bausch & Lomb form and submit findings via Surgivision Datalink.
- Remember to measure intermediate acuity using the intermediate scale, distance corrected near visual acuity, and visual acuity in both eyes at all ranges after the second eye to assess visual function.
- Remember to verify refractive findings with a cycloplegic refraction when visual acuities and refraction do not correlate or if near visual acuity is not J3 or better.

UCVA and BCVA that could not be evaluated by fundoscopy due to the cataract preoperatively.

Bellucci: But with the development of newer and more sensitive OCTs, it is evident that many patients have thin and epiretinal membranes.

Kanellopoulos: That is true, but I think it is important when making the choice between a multifocal IOL and the Crystalens to take that into account.

POSTOPERATIVE TOUCH-UPS

Bellucci: Dr. Maus, are you advising patients about the possibility of postoperative touch-ups with the laser?

Maus: Of course, that is mandatory. We use a limbal relaxing incision, and we do either LASIK or PRK afterward. We skip the procedure if the cornea is too dry in older patients.

Cataract patients with deteriorated visual acuity just want to see better. But in this premium IOL-driven market, we also talk about options that provide accommodation. Many patients, perhaps 80%, have an astigmatism of more than 1.00 D topographically. Therefore, we advise a laser touch-up, depending on how demanding the patient is. We just conducted a study that asked for less than 1.00 D in the topography, and it was awful. We are using 5-mm K readings.

Daya: But you wouldn't treat astigmatism based on a 5-mm K reading.

Kanellopoulos: Right, but this still brings up a good point because it will if you have to choose between the K readings. A lot of times, the level of astigmatism with the Pentacam (Oculus Optgeräte GmbH, Wetzlar, Germany) was 1.50 D but it was 0.30 D with the IOLMaster. What do you do in that patient? It is a difficult decision. If this was my refractive surgery patient, I would disregard the IOLMaster measurements. In cataract surgery, we go with the IOLMaster and Biograph K's.

Daya: Everyone has to find his own area of comfort. I perform and use autokeratometry. It correlates well with the refraction.

Bellucci: This lens might forgive weak postoperative refractive inaccuracies because of its mechanism of pseudoaccommodation, which may also promote better distance UCVA. The most demanding patient will only be satisfied when distance, intermediate, and near vision are sharp. But, this lens offers new possibilities for our patients.

Maus: That depends on how you sell it; you must under-sell and over-deliver. If you sell it as an accommodating IOL and the patient ends up with 0.75 D, he may have good distance vision because he can accommodate. But, he wouldn't be pleased with his intermediate or near vision. However, if you sell the Crystalens as a forgiving lens, the patient is more likely to accept the outcome.



I am most happy that my patients do not complain about ghosting or halos while driving at night.

Kanellopoulos: Perhaps we need to approach this from a different angle. Our preoperative discussions with cataract patients should not focus on their postoperative refractive outcome. Rather, we should be explaining the procedure, walking them through the potential complications of cataract surgery. I like to bring the focus back to the surgery itself when I talk with the patient preoperatively. For the demanding patient, I explain each step and measurement—I even explain the possibility of bias on these measurements. But the problem with spending too much time with the demanding patient before surgery is that even after perfect surgery that surpasses any limitations with the measurements, you will have to conduct the same discussion postoperatively. In my opinion, that is not medicine. I am therefore honest with such patients on potential complications and possible limitations to the perfect result.

The Crystalens HD certainly forgives a lot of small refractive errors, but we shouldn't forget that cataract surgery is cataract surgery. We are creating a population who will be unrealistic to this procedure if we are just focusing on how the patient will see at distance and near.

Daya: But this is not just cataract surgery, it is also refractive surgery. The whole paradigm has and is continuing to change. I agree that cataract is a disease, but presbyopia is a disease too. Maybe 15 years from now presbyopia will be considered a disease, and premium IOLs will no longer be premium but standard IOLs. It depends on patient expectations.

If you want to use a lens like the Crystalens and have good outcomes, then you need to be just as vigilant with cataract patients as you are with refractive patients. They are paying for value. You should under-sell, but you still need to over-deliver.

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CLINICAL OUTCOMES

Bellucci: Great points. We must all learn how to walk the line between reassuring patients that they will have a good outcome and not promising too much. Let's switch gears and discuss clinical outcomes, including visual acuity, spectacle independence, and quality of vision. I am aware that you have all implanted a considerable number of Crystalens IOLs. Dr. Kanellopoulos, can you share your experience?

Kanellopoulos: For me, the first, second, and third reason for using this lens, as far as the reward and the visual outcomes, is the excellent quality of vision at distance. The advantages of intermediate and near vision have been mentioned, and we have mirrored results from the US FDA clinical trials in our European site results.

But I am most happy that my patients do not complain about ghosting or halos while driving at night. It may sound funny, but another rewarding aspect of the Crystalens is that a lot of our patients (especially female) like that the lens is not reflected in artificial lighting. I don't know if it is a Greek cultural thing, but a lot of patients who have acrylic IOLs do not like when people tell them that their eyes sparkle.

Bellucci: So you mention the posterior location and the absence of any visible reflex as one of the advantages? This is a great point. How many of your bilateral implantation patients are spectacle independent?

Kanellopoulos: More than 80% do not need glasses for distance, intermediate, or near vision. The rest are at approximately +1.00 D for reading print, sewing, and other near activities.



We must all learn how to walk the line between reassuring patients that they will have a good outcome and not promising too much.

Bellucci: Do patients notice differences in their quality of vision in bright and dim lighting conditions? Did you receive any complaints?

Kanellopoulos: No. The only complaints are similar to any other IOL when capsular opacification is encountered. This will cause slight deterioration of mainly scotopic vision; however, I have lasered these patients with gratifying results.

Bellucci: Did you find any problems with the laser capsulotomies?

Kanellopoulos: No. However, I have noticed clinically that with capsular opacification, the lens moves slightly forward. I am quite careful that the opening is not too big and not to tear through the capsular equator.

Bellucci: We had insight from the old Crystalens that the lens had improved ability of accommodation after laser touch-up.

Kanellopoulos: That has been my experience as well.

Daya: I have asked myself why my use of the Crystalens has increased: Is it because I am seeing more appropriate patients, or is it that I prefer the Crystalens over other IOLs? The answer is a bit of both—but perhaps a bit more because I prefer the lens. This is because I don't have to worry about aberrations, halos, and glare.

Distance visual quality with the Crystalens is extremely good compared with monofocal IOLs, and intermediate vision is good as well. Patient reports and contrast sensitivity testing confirm the exceptional quality of vision, possibly due to its posterior vault and where it sits in the nodal point. The only time I have encountered trouble with near vision is in dim light conditions when some patients are fairly spectacle independent. These patients are adjusted with a slight bit of monovision (previously recommended by Bausch & Lomb for use with the Crystalens), and 75% of my patients are spectacle independent. That is good for a lens that only has so much accommodative amplitude. With monovision and plano in the dominant eye, we have patients who see quite well—well enough to see without glasses in 75% of cases.

Hanneken: I don't know if the Germans read more, but our patients are only spectacle free in approximately 60% to 70% of cases.

Mertens: Approximately 85% of our patients are spectacle independent.

Bellucci: Erik, are your patients satisfied with the behavior of this lens?

Mertens: I have implanted a few Crystalens IOLs in postrefractive surgery patients; however, I have never implanted a multifocal IOL after refractive laser surgery because I did not know what it would do. Results with the Crystalens are better than with monofocal IOLs.

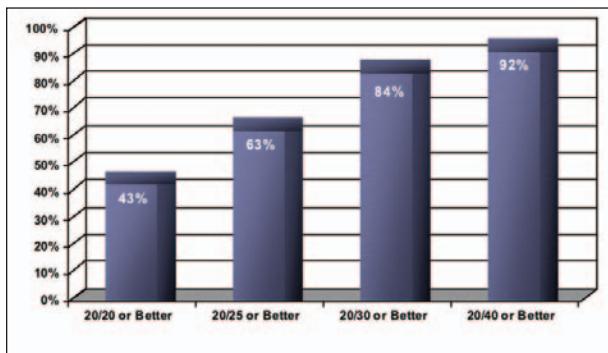


Figure 3. Initial European Crystalens outcomes: Monocular distance UCVA at 1 month postoperative (N=127).¹

Although the Crystalens is positioned more on the backside of the eye, I calculate it the same as I do for monofocals.

Bellucci: So, you rely on this lens for postlaser patients, and you can still calculate the power with precision?

Mertens: Better than with monofocal IOLs, yes.

Daya: My experience is the same. Postrefractive patients want more. They know they have a cataract but they do not want to lose their ability to read. I tell them that the Crystalens is the only option they have.

Hanneken: We have implanted a few, and the calculations and predictability were good. As we have mentioned, approximately 60% to 70% of our patients are spectacle independent.

Bellucci: Who are the patients you would not recommend for the Crystalens? Are there any specific cases where the lens was particularly useful?

Daya: We are extremely cautious choosing premium lenses in patients who may develop macular degeneration, those with glaucoma, or a family history of either. I would feel more comfortable sleeping at night knowing that I put a Crystalens in those patients versus a multifocal IOL.

PEARLS FOR IMPLANTATION

Bellucci: Regarding surgery and lens implantation, what surgical hints and tips can you share to improve the anatomical and visual outcomes for our patients? What is your current technique, and what would you suggest to others?

Daya: The wound must be constructed properly. I would suggest that every prospective Crystalens sur-

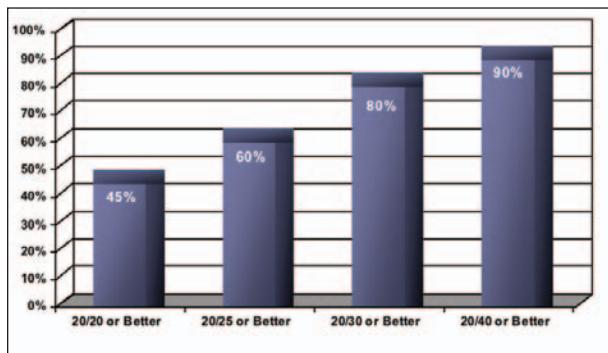


Figure 4. Initial European Crystalens outcomes: Monocular intermediate UCVA at 1 month postoperative (N=111).¹

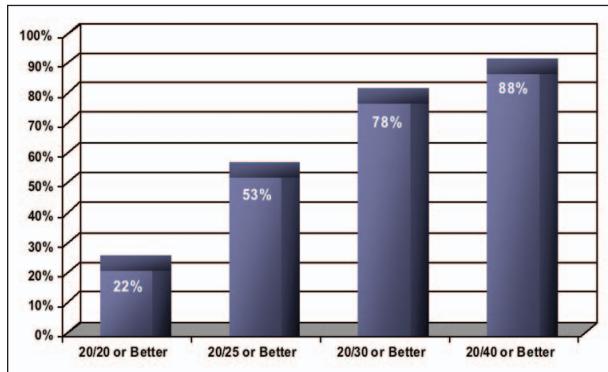


Figure 5. Initial European Crystalens outcomes: Monocular near UCVA at 1 month postoperative (N=128).¹

geon starts to work through scleral incisions if possible because they are more forgiving in terms of astigmatism, wound closure, and endophthalmitis. You may use a clear corneal incision but you have to be prepared to suture the wound. If you don't use sutures, the lens will come forward, and myopic shift and loss of accommodation will occur. The capsulorrhexis should be 5.5 to 6.5 mm.

Good cortical clean-up is vital to avoid capsular fibrosis and inflammation and prolong steroid use. Often, if the anterior and posterior capsules have cortex, it will be reactive. With regular implants, the anterior leaf sits on top of the optic and seals the remaining cortex. Eyes get quiet very quickly. That is a big difference with the Crystalens where the anterior leaf is typically away from the posterior capsule. If you want a quiet eye, you must remove the cortex. Rotating the lens is a useful technique to get rid of the ophthalmic viscosurgical device and residual equatorial cortex. Finally, make sure the lens is pushed and posteriorly vaulted at the end of the case. I use atropine to stop the ciliary body from moving the lens forward in the postoperative period.

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Mertens: Normally, I do not place stitches; however, I do when the incision is not watertight. My incision size is 1.8 mm, which is enlarged to 2.8 mm before implanting the lens. The smaller the incision size is, the better you can predict the induced astigmatism. If you know the induced astigmatism, you can take actions to lower it as much as possible, as this is extremely important in achieving good surgical results. My capsulorrhesis is the same size as Sheraz suggested, 6 to 6.5 mm. I have constructed both oval and round capsulorrhyses and did not notice a difference.

Hanneken: Wound construction is crucial. I start a little bit small, at 5.5 mm, but I see quite often that the edge of the rhesis still covers the optic. Therefore, I enlarge the incision to 6.2 or 6.3 mm so the optics are completely free. Recommendations from Bausch & Lomb are to stay between 5 and 6 mm (see *Getting Started With the Crystalens HD* on page 6).

Kanellopoulos: My classic capsulorrhesis is a bit under 6 mm; however, my surgical technique for the Crystalens is to use a larger capsulorrhesis, more toward 6.5 mm.

I do not like scleral incisions. Instead, I almost always use corneal incisions since one-third of cases will require suturing because the wounds are not really tight. Scleral incisions may be forgiving for other types of cataract surgery, but the loss of actual anterior chamber volume can make the lens roll forward.

I do use a suture but it is a mattress suture, not a suture that goes from the cornea to the sclera but parallel to the incision. It hooks the upper to the lower cornea. I use suturing more than I used to in regular cataract cases.

There is always the risk of disrupting the zonules if you overdo cortical clean-up. I think the larger capsulorrhesis protects some of the anterior capsule from most of the complications. In younger patients, I clean the anterior capsule right at the edge of the capsulorrhesis, splitting irrigation and aspiration and cleaning the endothelial cells. In these cases, a ring of stripped endothelial cells is visible at the capsular edge.

Bellucci: What about in the less-than-optimal capsulorrhesis, for example, a crescent shape? Would this prevent you from implanting the Crystalens?

Kanellopoulos: I don't think so, as long as I have good wound closure and I see posterior vaulting of the lens. I have spoken with a lot of my colleagues in

the United States who use larger capsulorrhyses than usual as a means to have this lens work better. If the capsular bag is intact, I don't see it as a disadvantage.

Bellucci: I encourage patients to wear spectacles with plus add immediately after surgery to delay accommodation. Does anyone else do that?

Kanellopoulos: We ask them to avoid movement of the lens and use reading glasses in the first week if they intend to read. Then, they are asked to read without glasses 100% of the time for at least the first month to encourage the actual learning curve.

Maus: The induced negative spherical aberration is something the patient has to get used to. It takes at least 4 to 6 weeks, if not longer, until they are happy.

INTRODUCTION OF THE IOL

Bellucci: This comes to the last part of our discussion. How did you introduce the Crystalens into your practice, and what can you suggest to surgeons when they introduce the Crystalens into their practice?



I like to decide what lens is best for each patient ... because only a few patients truly understand the difference between multifocal and accommodating IOLs.

Maus: One of the best things we have to teach patients is a large model of the Crystalens. You can press on its haptics to demonstrate how the lens stays in position. You can show the patient the difference between monofocal, multifocal, and accommodating IOLs. When you move the Crystalens back and forth, the patient notices how it changes its power in relation to the eye.

Hanneken: I like to decide what lens is best for each patient. I do not leave the decision to the patient because only a few patients truly understand the difference between multifocal and accommodating IOLs.

Bellucci: How do you present this lens? Do you pres-



One of the best things we have to teach patients is a large model of the Crystalens. When you move the Crystalens back and forth, the patient notices how it changes its power in relation to the eye.

ent it as a multifocal IOL or as a lens that will increase intermediate and near vision as compared with normal, monofocal lenses?

Kanellopoulos: I use the latter approach. I mention that they will have more liberty as far as intermediate vision. In our patient population, it is a strong point to discuss about cell phone vision, which is near the J4 or J5 range. But I would agree with what the other participants have already said. If you spend a lot of time with your patients, the final question is, "Doc, what do you think I should do?" They come to you because you are the expert. That is probably the most important point: It is us who should decide.

I explain to my patients why I choose the Crystalens, and I explain that I cannot predict their future retinal health or their rate of neuroadaptation. I know that many people are happy with their multifocal IOLs, but what happens if you are one of those who is not? I think these have been important parts of my discussion with patients. The bottom line is that I like the Crystalens. That is the strongest selling point in my practice. If I feel comfortable with it, it shows through my presentation.

Daya: At every point in the patient care pathway, one needs to consider and discuss the patient's options. For me, it starts off with when I first meet patients. If the patient is a suitable candidate, we discuss all of the options we have available. The other thing is that if my staff is not convinced that the lens works, the level of enthusiasm when talking about that particular option wanes. Patients pick up on that. The staff must be convinced.

By the time patients reach me, my protocol is the same as everyone else here. I really make the choice for the patient based on all the information I have. If I compromise and allow the patient to make the choice, I may be offloading the responsibility, but I still have to take care of that patient afterward and

hold their hand if things don't go right. If I am going to have to hold their hand afterward, I want to make the choice.

Bellucci: So, the best thing we can suggest to other ophthalmologists is to study the Crystalens and make sure their staff is convinced of its value. If we are convinced, then it is easy to tell the patient what would be the best option for him. Do you agree, Dr. Mertens?

Mertens: Completely. I used the Crystalens AT-45 quite extensively 6 to 7 years ago. The results were not what I expected, so I stopped using it. When the new model was released, I was skeptical because I did not know what to tell my patients to expect. However, after implanting the first 20 lenses, I was convinced that it was more than just a monofocal IOL. When you are convinced that the lens works, it is easy to convince the patient to choose an accommodating or multifocal IOL because you are guiding the choice.

Bellucci: Thank you all for your responses. What came out of this meeting is that the Crystalens' position in the eye may lead to better aberrometric results and better depth of focus. It is suitable for normal and corneal-operated eyes, for unilateral implantation, and for patients in whom other problems of the eye may happen, such as subperfect vision and macular damage. What is the most important benefit of this lens in your practice? Why do you prefer this lens? Please offer one take-home point.

Maus: Added value for the patient without any setback and optical quality.

Hanneken: Quality of vision.

Kanellopoulos: No special complaints of night vision.

Daya: It is forgiving, both now and in the future.

Mertens: Range of vision.

Bellucci: I think some new insight into the Crystalens came out of this roundtable. I thank every surgeon on this panel for such valuable contributions. Our discussion today will promote a new type of study of the Crystalens in the future, in the hopes that more of our patients will be implanted with such an interesting lens. Thank you all. ■

1. On file SurgiVision® DataLink (Surgeons with 10 or more eyes entered in SurgiVision® DataLink with at least 1 month follow-up).

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