

Get the IOL Power Calculation Right —No Matter the Circumstance

In January 2011, *CRST Europe* published a cover focus on corneal collagen crosslinking (CXL) that my fellow Chief Medical Editor Sheraz M. Daya, MD, FACP, FACS, FRCS(Ed), FRCOphth, predicted would become a classic—something that the reader should archive somewhere handy. Such was the quality and breadth of information in that issue that it represented just about everything cutting edge that was happening with CXL. I have a feeling that this month's issue of *CRST Europe* may fall into the same category.

Cataract surgery is the most commonly performed surgery on the planet. Safety of the procedure is at an all-time high in terms of complications and is likely to improve even further in the years ahead, coinciding with the evolution of laser cataract surgery.

The most common problem today, as well as being the most frequent subject of litigation in cataract surgery, is the occurrence of a refractive surprise. This issue is dedicated to getting the IOL power calculations right, irrespective of the eye's previous history or lack thereof.

If ever an issue of *CRST Europe* relied on the knowledge of experts, this one must rank with the best. Not only were the leading authorities on IOL power calculations consulted, but the authors of the original formulas that are still widely used today collaborated on an article that overviews these IOL power calculations. Newer approaches such as ray tracing are also described, again by the experts and the people who have experience using them. Additionally, an article by some of our esteemed colleagues is dedicated to revealing pearls for improving refractive outcomes. The latest approach to solving this issue, namely intraoperative aphakic aberrometry, is also discussed.

This collection of articles, for me at least, is the most comprehensive and appropriate package that I have seen on this topic in my years as a cataract and refractive surgeon. I know that I will be keeping this edition archived in my study. I am certain that, once you have read these articles, you will come to the same conclusion as I have: We all stand on the shoulders of giants in the ophthalmic field who have made and continue to make enormous contributions to both surgeons' and patients' overall satisfaction with cataract surgery.



There are giants in every field, and I would like to draw a parallel to the game of golf. I recently had the pleasure of caddying for my youngest son, who committed to golf for the University of North Carolina in the United States come this autumn. Caddying for my son was, for me at least, more exciting than watching the Masters at Augusta in April, but I won't forget when Bubba Watson's miraculous shot from the woods won him the coveted green jacket. Everyone watching was thinking, "What is he doing?" I couldn't help but think that another (more sane) golfer would play two shots and take the safest route to the green. But Bubba knew what he was doing; he has always taken a slightly different approach from some of the other greats. (He has never had a golf lesson, for example.)

Applying this lesson to ophthalmology, there are benefits to taking Bubba Watson's approach of thinking outside the box (or in the woods). Some of the best minds in ophthalmology continue to devise more complicated formulas that provide us with better IOL outcomes, and for that we are all grateful. Perhaps taking a more direct approach to our target is appropriate. Forget about formulas and fudge factors for a moment: Why don't we measure the exact optical properties of the eye with instruments designed for exactly this purpose? Why don't we then ray trace these individual eye models to determine what each individual eye requires in terms of IOL power? Surely this has the potential to consistently provide us with more accurate IOL predictions and fewer outliers or refractive surprises. I'm just asking, but I know which route Bubba Watson would take.

Enjoy this issue as you form your own ideas of what makes the most sense for you and for your practice. The editorial staff of *CRST Europe* deserves our sincere congratulations for an issue that I predict (without the benefit of any formulas) will stand the test of time. ■

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