

# More Physiologic IOP in Cataract Surgery Matters: Here's Why



During a recent symposia series, respected cataract surgeons explained the key advantages of performing cataract surgery with more physiologic IOP when using CENTURION® Vision System with ACTIVE SENTRY®.

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**M**aintaining a more natural IOP during cataract surgery preserves the health of the anterior segment, reduces postoperative corneal swelling, enhances endothelial cell protection, and minimizes anterior segment inflammation compared to higher IOP levels.<sup>1-3</sup> Recent data indicate significant benefits when operating at lower irrigation pressures, specifically:

- Less corneal edema as exhibited by an increase in corneal volume at 1 month<sup>1</sup>
- Less of an increase in central corneal thickness at days 1 and 7<sup>2,3</sup>
- Better corneal clarity at day 1<sup>3</sup>
- Lower presence of Descemet's folds at day 1<sup>2,3</sup>
- Less anterior segment inflammation as indicated by the presence of flare and cells at day 1<sup>2,3</sup>

The CENTURION® Vision System with ACTIVE SENTRY® (Alcon) allows surgeons to operate at a more physiologic IOP without compromising anterior chamber stability, surgical efficiency, or patient comfort and safety.

## EFFICIENT PHACOEMULSIFICATION IN A STABLE CHAMBER

The CENTURION® Vision System with ACTIVE SENTRY® enables surgeons to operate at lower fluidic rates while still extracting cataractous lenses efficiently. The ACTIVE SENTRY® technology senses intraoperative changes in IOP and responds by sending real-time feedback to adjust fluid flow and vacuum levels. These constant fluidic adjustments keep

the anterior chamber stable while allowing surgeons to use higher aspiration and vacuum levels for accelerated fragment removal with reduced repulsion, lower dissipated energy, and less aspirated fluid.

## CHAMBER STABILITY AND SURGE CONTROL

The ACTIVE SENTRY® Handpiece and QuickValve™ technology use an integrated, responsive pressure sensor to mitigate IOP fluctuation and surge. When the sensor detects the onset of postocclusion surge, the QuickValve™ technology within the FMS responds immediately to supply BSS to the aspiration line, thereby maintaining the surgeon's predetermined IOP settings and optimizing the fluid dynamics for each case.

## PATIENT COMFORT

Research pinpointing anterior chamber distention as a cause of patient discomfort during cataract surgery underscores how maintaining a more natural IOP and stable anterior chamber could significantly support patient comfort during the procedure.<sup>4</sup> The CENTURION® Vision System with ACTIVE SENTRY® Handpiece ensures a stable anterior chamber, allowing the surgeon to focus on the procedure without concerns about IOP fluctuations that could require reduced fluid speeds. To learn more, scan the QR code. ■

1. Suzuki H, Oki K, Shiwa T, Oharazawa H, Takahashi H. Effect of bottle height on the corneal endothelium during phacoemulsification. *J Cataract Refract Surg.* 2009;35(10):2014-2017.

The AutoSert® IOL Injector Handpiece achieves the functionality of injection of intraocular lenses. The AutoSert® IOL Injector Handpiece is indicated for use with the AcrySof® lenses SNG6WF, SNGAD1, SNGAT3 through SNGAT9, as well as approved AcrySof® lenses that are specifically indicated for use with this inserter, as indicated in the approved labeling of those lenses.

**Warnings:** Appropriate use of CENTURION® Vision System parameters and accessories is important for successful procedures. Use of low vacuum limits, low flow rates, low bottle heights, high power settings, extended power usage, power usage during occlusion conditions (beeping tones), failure to sufficiently aspirate viscoelastic prior to using power, excessively tight incisions, and combinations of the above actions may result in significant temperature increases at incision site and inside the eye, and lead to severe thermal eye tissue damage.

Good clinical practice dictates the testing for adequate irrigation and aspiration flow prior to

2. Vasavada AR, Praveen MR, Vasavada VA, et al. Impact of high and low aspiration parameters on postoperative outcomes of phacoemulsification: randomized clinical trial. *J Cataract Refract Surg.* 2010;36(4):588-593.

3. Vasavada V, Raj SM, Praveen MR, Vasavada AR, Henderson BA, Asnani PK. Real-time dynamic intraocular pressure fluctuations during microcoaxial phacoemulsification using different aspiration flow rates and their impact on early postoperative outcomes: a randomized clinical trial. *J Refract Surg.* 2014;30(8):534-540.

4. Hou C-H, Lee J-S, Chen K-J, Lin K-K. The sources of pain during phacoemulsification using topical anesthesia. *Eye (Lond).* 2012;26(5):749-750.



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entering the eye. Ensure that tubings are not occluded or pinched during any phase of operation.

The consumables used in conjunction with ALCON® instrument products constitute a complete surgical system. Use of consumables and handpieces other than those manufactured by Alcon may affect system performance and create potential hazards.

**AEs/Complications:** Inadvertent actuation of Prime or Tune while a handpiece is in the eye can create a hazardous condition that may result in patient injury. During any ultrasonic procedure, metal particles may result from inadvertent touching of the ultrasonic tip with a second instrument. Another potential source of metal particles resulting from any ultrasonic handpiece may be the result of ultrasonic energy causing micro abrasion of the ultrasonic tip.

**ATTENTION:** Refer to the Directions for Use for the accessories/consumables and Operator's Manual for a complete listing of indications, warnings, cautions and notes.