The CENTURION® Vision System

The Only Intelligent Phacoemulsification Technology Designed to Optimize Cataract Surgery

Cataract surgery is one of the most common surgical procedures, with almost 22 million procedures performed worldwide each year. The number of cataract procedures is growing rapidly due to demographic changes and increased access to health care. In addition, standards for cataract surgery are advancing worldwide, resulting in demand for advanced equipment.¹

Several techniques can be used for cataract surgery, and surgeons’ choices are largely dependent on access to advanced equipment and training. The most common and widely applied surgical procedure for the removal of cataracts is phacoemulsification (phaco), which includes a small incision made in the eye, followed by the insertion of a tiny probe where ultrasonic phaco (USP) energy is used to help fragment and remove the cataract from the eye.²

As the world leader in eye care, Alcon is on the frontlines of surgical innovation development for the treatment of cataracts, including the new CENTURION® Vision System - the industry’s only intelligent USP technology platform. The CENTURION® Vision System is designed to optimize every moment of the cataract procedure by providing eye surgeons control and improved efficiency.

Phaco - The Standard of Care for Cataract Surgery

Cataracts are the leading cause of treatable blindness globally – contributing to nearly 51% of the world’s blindness.³ Cataracts develop when the eye’s lens becomes cloudy and prevents the passage of light to the retina, the innermost layer in the back of the eye.³ USP is the standard of care for cataract surgery in developed nations, and the technique is making strides towards becoming the standard of care in less developed and emerging regions.¹

In 2013, more than 14 million cataract surgeries will be performed using USP technology, and that number is expected to increase to more than 19 million by 2018.¹ The new CENTURION® Vision System represents the next-generation in
phaco technology, and provides surgeons with superior cataract removal capabilities.

Technology Overview and Unique Features

The CENTURION® Vision System sets a new standard of performance in cataract surgery by combining multiple, intelligent technologies and key features to provide surgeons control and improved efficiency during the cataract phaco procedure.

The CENTURION® Vision System is the only intelligent phaco technology that optimizes every moment of the cataract procedure. The new system automatically and continuously adapts to changing conditions within the eye, providing more consistent IOP (Intraocular Pressure) and greater anterior chamber stability during each step of the surgery. The CENTURION® Vision System places optimized energy technology at the surgeon’s fingertips through enhanced fluidic management and surgical precision.4

Intelligent Technologies

Active Fluidics™ Technology is an automated system that optimizes anterior chamber stability by allowing surgeons to proactively set and maintain target IOP within the eye during the cataract procedure. This provides enhanced IOP control during the procedure in comparison to gravity fluidics and fixed pressure irrigation; reduces surges due to occlusion breaks; maintains a consistent IOP; and eliminates the need to manually adjust fluid pressure.

Balanced Energy™ Technology enhances phaco efficiency through proven OZil® Intelligent Phaco and the INTREPID® Balanced Tip probe. This increases efficiency and control, while reducing energy levels and accommodating surgeon settings for aspiration and vacuum by keeping the fragmented lens material at the shearing plane for emulsification.5,6

Applied Integration™ allows the CENTURION® Vision System to be used seamlessly with multiple cataract surgical technologies, such as the LuxOR™ Q-VUE surgical microscope platforms and the LenSX® Laser from Alcon, to create a comprehensive cataract surgery suite designed to minimize variability at every step of the procedure.

The CENTURION® Vision System also offers surgeons an improved ergonomic design, wireless footswitch and intuitive touch-screen display.

Market Availability

The CENTURION® Vision System is available in those countries where it has received the necessary regulatory approvals. Alcon will continue its global rollout
throughout 2014. Those interested in learning more about the CENTURION® Vision system can visit www.centurionvisionsystem.com.


CENTURION® Vision System Important Safety Information

Caution: Federal (USA) law restricts this device to sale by, or on the order of, a physician.

As part of a properly maintained surgical environment, it is recommended that a backup IOL Injector be made available in the event the AutoSert® Injector Handpiece does not perform as expected.

Indication: The CENTURION® Vision system is indicated for emulsification, separation, irrigation, and aspiration of cataracts, residual cortical material and lens epithelial cells, vitreous aspiration and cutting associated with anterior vitrectomy, bipolar coagulation, and intraocular lens injection. The AutoSert® IOL Injector Handpiece is intended to deliver qualified AcrySof® intraocular lenses into the eye following cataract removal.

The AutoSert® IOL Injector Handpiece achieves the functionality of injection of intraocular lenses. The AutoSert® for use with the AcrySof® use with this inserter, as indicated in the approved labeling of those lenses.

Warnings: Appropriate use of CENTURION® 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 entering the eye. Ensure that tubings are not occluded or pinched during any phase of operation.

The consumables used in conjunction with ALCON® 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 and Operator’s Manual for a complete listing of indications, warnings, cautions and notes.