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The Best VisionNewsletter

It's Arrived! The Implantable Contact (Collamer) Lens (ICL)

The Visian ICL™ (Staar Surgical) was U.S. FDA approved on December 23, 2005, quite the holiday gift for an estimated 90 million people who have nearsightedness so severe that they cannot be safely corrected with Custom LASIK or other procedures. It is approved for use in adults over age 21 with myopia from -3 to -20 diopters (D). A toric version to correct both myopia and 1 to 4 D of astigmatism is in FDA trials and has demonstrated dramatic results to date; its approval should not be far behind. The ICL for hyperopia remains in FDA trials, but its indications are limited to those few axial hyperopes with adequate anterior chamber depth to permit safe implantation within the posterior chamber.

The ICL is already in its fourth generation with approximately 40,000 implanted worldwide. Its collamer material is a proprietary biocompatible porcine copolymer with studies demonstrating no evidence of long-term inflammation. This lens is folded and inserted through a no-stitch, clear cornea incision under topical anesthesia, requiring no patch. It is implanted in the posterior chamber with its plate haptics securely anchored in the ciliary sulcus such that it does not rotate. Due to its close proximity to the crystalline lens, the concern of surgically- or metabolically-induced cataracts were carefully evaluated in the FDA study. Only 2 of 526 eyes (0.4%) required cataract extraction at three years. Refractive accuracy of the ICL was excellent with uncorrected visual acuity of 20/40 in 95% of patients and 20/20 or better in 59% of patients at 3-year follow-up.

Richard A. Erdey, M.D. has been an investigator for Starr Surgical's Visian ICL™ U.S. FDA Study since 1998. Twenty (20) eyes implanted with an ICL with -8.5 to -20.0D of pre-existing myopia, have been followed in our practice for as long as 7 years. The fact that all patients have reported higher quality vision, especially at night as compared to pre-operative satisfaction with glasses or contacts has been impressive.

The ICL has several distinct advantages when compared to the other FDA approved phakic intraocular lens, the Verisyse™ (AMO). The non-folding Verisyse requires an incision twice as large at 6 mm, which can induce astigmatism and must be closed with sutures. The Verisyse may cause pupil ovalization as it is an anterior chamber lens that is physically anchored (enclavated) to the iris. Since the Verisyse lies closer to the cornea, there is a greater risk of long-term endothelial cell loss than ICL. These advantages along with the fact that the ICL can more quickly be combined with LASIK or PRK for residual refractive error make ICL our phakic intraocular lens of choice for most patients.

There are several circumstances in which the ICL is preferable to Laser Vision Correction (LVC). The visual results of the ICL are superior for myopia greater than -6.0 D, because the refractive effect of the ICL (posterior chamber) occurs much closer to the eye's nodal point than LVC (corneal surface) and because LVC induces increasing optical aberrations with larger corrections. Additionally, the ICL eliminates the risk of LVC-induced iatrogenic keratoconus in corneas that are too thin to be weakened further with LVC. Also, the ICL does not place corneas with flatter curvature at risk for increased optical aberrations due to additional laser-induced flattening. Finally, those with early nuclear sclerosis can do well with ICL as it can be easily removed at the time of cataract surgery, thereby avoiding the difficulty in calculating accurate intraocular lens power following LVC. The result is a more predictable outcome with superior optics following cataract surgery, as the cornea has been spared previous laser reshaping.

Questions?

Please visit our website at <http://www.icanseeclearly.com/LVC/icl.htm>; you will find answers to frequently asked questions and multimedia presentations on the Visian ICL™!

Please contact us to schedule a complimentary ICL examination for your patients. Thank you!

Richard A. Erdey, M.D.

Gregory D. Searcy, M.D.

Erdey Searcy Eye Group

5965 East Broad Street
Suite 490
Columbus OH 43213

Voice: 614.863.3937
Fax: 614.863.5010

Richard A Erdey MD
Medical Director

Gregory D Searcy MD
Ophthalmologist

Wilbur C Blount MD
Consultative Ophthalmology

Patrick A Janson OD
Clinical Director

Matthew U Neal OD
Optometrist

Douglas J Bosner OD
Director of Education

Jonelle J Knapp OD
Optometrist

We dedicate ourselves to enhancing the quality of life of every individual whose life we touch, by helping each to see his or her best, and by preserving our patients' vision and eye health throughout life.

bestvision@icanseeclearly.com