STAARSURGICAL™

TORIC

EVO|EVO+
Visian ICL™

eDFU-0040/1

PHAKIC TORIC INTRAOCULAR LENS

Evolution in Visual Freedom™

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STAAR® SURGICAL

EVO|EVO+ Visian TORIC Implantable Collamer Lens (EVO|EVO+ TICL)

DIRECTIONS FOR USE

PRODUCT INFORMATION

Please review this product information completely before performing your initial clinical procedure. All physicians must complete the STAAR Surgical EVO|EVO+ TICL Physician Certification Program; special attention is placed on sizing methodologies for determination of EVO|EVO+ TICL overall diameter. Improper EVO|EVO+ TICL size may lead to adverse events ranging from mild to severe.

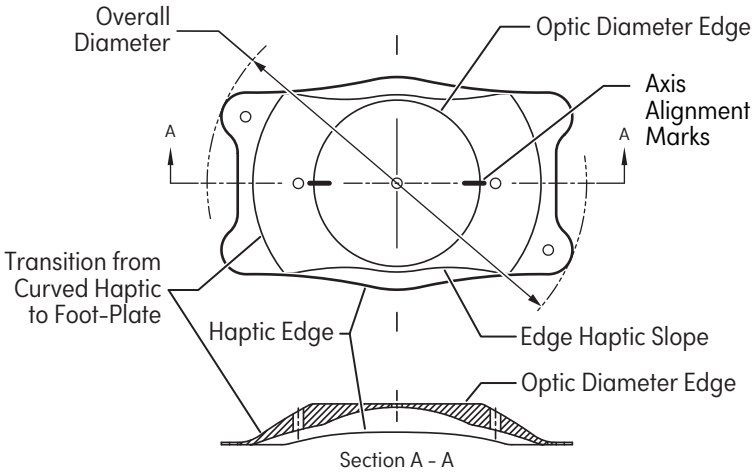
DEVICE DESCRIPTION

EVO|EVO+ TICL features a single piece lens design with a concave/convex optic zone of 4.9 to 6.1 mm diameter (according to model and diopter) and a 0.36 mm diameter central hole in the optic known as the KS-AquaPORT®. The lens is manufactured in four overall diameters: 12.1, 12.6, 13.2, 13.7 mm to suit different eye sizes. The lenses are capable of being folded and implanted through an incision of 3.5 mm or less. The lenses are manufactured from a proprietary ultraviolet (UV) radiation absorbing polymer containing hydroxyethylmethacrylate (HEMA) and porcine collagen. The 10% UV cut-offs for STAAR's phakic IOL lens family are:

- 377 nm for the thinnest central thickness lens, -5.5 D, and
- 388 nm for the thickest central thickness lens, +10.0 D.

Table 1 : VTICMO/VTICM5 Models

Brand Name	Model Name	Spherical Power (D)	Cylindrical Power (D)	Overall Diameter (mm)	Optic Diameter (mm)	Haptic Design
EVO Visian ICL	VTICMO 12.1	-0.5 to -18.0	+0.5 to +6.0	12.1	4.9 to 5.8	Flat, plate
EVO Visian ICL	VTICMO 12.6	-0.5 to -18.0	+0.5 to +6.0	12.6	4.9 to 5.8	Flat, plate
EVO Visian ICL	VTICMO 13.2	-0.5 to -18.0	+0.5 to +6.0	13.2	4.9 to 5.8	Flat, plate
EVO Visian ICL	VTICMO 13.7	-0.5 to -18.0	+0.5 to +6.0	13.7	4.9 to 5.8	Flat, plate
EVO+ Visian ICL	VTICM5 12.1	-0.5 to -14.0	+0.5 to +6.0	12.1	5.0 to 6.1	Flat, plate
EVO+ Visian ICL	VTICM5 12.6	-0.5 to -14.0	+0.5 to +6.0	12.6	5.0 to 6.1	Flat, plate
EVO+ Visian ICL	VTICM5 13.2	-0.5 to -14.0	+0.5 to +6.0	13.2	5.0 to 6.1	Flat, plate
EVO+ Visian ICL	VTICM5 13.7	-0.5 to -14.0	+0.5 to +6.0	13.7	5.0 to 6.1	Flat, plate



VTICMO/VTICM5 Diagram

INDICATIONS

EVO|EVO+ TICL is indicated for use in phakic eye treatment in patients 21–45 years of age for:

- The correction/reduction of myopia in patients ranging from -0.5 D to -20.0 D with less than or equal to 6.0 D of astigmatism at the spectacle plane.
- With an anterior chamber depth (ACD) equal to or greater than 2.8 mm, as measured from the corneal endothelium to the anterior lens capsule.

MODE OF ACTION

EVO|EVO+ TICL is intended to be placed entirely within the posterior chamber directly behind the iris and in front of the anterior capsule of the human crystalline lens. When correctly positioned, the lens functions as a refractive element to optically correct/reduce myopia with astigmatism.

CONTRAINDICATIONS

EVO|EVO+ TICL is contraindicated in the presence of any of the following circumstances and/or conditions:

1. Patients with low/abnormal corneal endothelial cell density, Fuchs' dystrophy or other corneal pathology.
2. Ocular hypertension in either eye.
3. Any cataract in the operative eye or non-traumatic cataract in the fellow eye.
4. Persons under the age of 21 years.
5. Primary Open Angle or Narrow Angle Glaucoma.
6. Narrow anterior chamber angles (i.e. less than Grade III as determined by gonioscopic exam).
7. Pregnant or nursing.
8. Previous or pre-existing ocular disease that would preclude post-operative visual acuity of 0.477 logMAR (20/60 Snellen) or better.
9. Patients who are amblyopic or blind in the fellow eye.
10. Implantation of a lens in an eye with an anterior chamber depth (ACD), as measured from the corneal endothelium to the anterior lens capsule, less than 2.8 mm.

COMPLICATIONS AND ADVERSE REACTIONS

Adverse reactions and complications due to, or following surgery and implantation of any EVO|EVO+ TICL may include, but are not limited to: Hyphema, Non-reactive Pupil, Pupillary Block, Additional YAG Iridotomy, Secondary Glaucoma, Cataract, Intraocular Infection, Uveitis/Iritis, Retinal Detachment, Vitritis, Corneal Edema, Macular Edema, Corneal Decompensation, Over/Under Correction, Significant Glare and/or Halos (under night driving conditions), Hypopyon, Increased Astigmatism, Loss of BSCVA, Rotation/Decentration/ Subluxation, IOP Elevation from Baseline, Corneal Endothelial Cell Loss, Iris Pigment Dispersion, Secondary Surgical Intervention to Remove/Replace/ Reposition the Lens, Peripheral Anterior Synechia (PAS), Iris Synechia to Implant, Conjunctival Irritation, Vitreous Loss.

PRECAUTIONS

1. Do not attempt to sterilize.
2. Do not autoclave.
3. The lens should not be exposed to any solutions other than the normally used intraocular irrigating solutions (e.g. isotonic saline, BSS, viscoelastic, etc.).
4. The lens should be handled carefully. No attempts should be made to reshape or cut any portion of the lens or to apply undue pressure to the lens optical portion with a sharp object.
5. Do not allow the lens to dry in air. The lens should be stored in sterile BSS solution during surgery.
6. The long-term effect of the lens has not been determined. Therefore, physicians should continue to monitor implant patients postoperatively on a regular basis.
7. Safety and effectiveness of the lens has not been established in patients with: unstable refractive error in either eye, keratoconus, history of clinical signs of iritis/uveitis, synechia, pigment dispersion syndrome, pseudoexfoliation, insulin-dependent diabetes or diabetic retinopathy, history of previous ocular surgery including refractive corneal surgery.
8. Implantation of a lens may result in a decrease in corneal endothelial cell density.

CALCULATION OF LENS POWER AND SIZING

The lens power and size calculation should be performed by the surgeon using the STAAR OCOS Calculation Software. Using the software potentially prevents calculation errors that may result in secondary surgery due to refractive surprise, excessive vaulting, lens rotation, IOP elevation from baseline, etc. During the U.S. FDA trial for the ICM/TICM, the white to white and ACD (from the corneal endothelium to the anterior lens capsule) were used to determine the ICL overall diameter. There are some reports suggesting that white to white corneal measurements do not correlate with sulcus to sulcus. Recent publications indicate that new imaging technologies may provide optimal visualization and measurement of the intraocular dimensions involved in phakic intraocular lens implantation.

LENS PREPARATION

Verify that the level of the liquid fills at least 2/3 of the vial. The thermoformed tray and vial should be opened in a sterile field. Record control number on operative report to retain traceability. Remove the aluminum cap and stopper. Using the foam tip plunger, remove the lens from the vial. The lens should not be exposed to a dry environment (air) for more than one minute.

CAUTION: Do not use if package has been opened or damaged.
CAUTION: Do not allow the lens to dry after removal from the glass vial.

ADMINISTRATION AND INSTRUCTION FOR USE

Implantation of EVO|EVO+ TICL should only be attempted by a surgeon who is highly skilled in the required surgical technique. The following procedure is recommended for implantation of EVO|EVO+ TICL.

The patient should be prepared for surgery according to standard operating procedure. Mark the desired axis (TARGET axis) for alignment of EVO|EVO+ TICL. A clear scleral or corneal tunnel wound incision of 3.5 mm or less should be used, followed by filling of the anterior and posterior chamber with an appropriate viscoelastic. The lens is then folded using a MICROSTAAR® injector MSI-PF or MSI-TF with SFC-45 cartridge and injected into the anterior chamber. Please refer to the product insert provided with the injector for instructions regarding proper loading and injection of the lens using the MICROSTAAR injection system. Verify correct orientation of the lens and that the lens is not inverted. If the pupil remains sufficiently dilated, the lens should be well centered and positioned under the iris in front of the natural lens so that the footplates are placed in the sulcus. Verify EVO|EVO+ TICL alignment marks are in the required axis (TARGET axis) according to the Implantation Orientation Diagram (IOD). Complete removal of the viscoelastic material must be performed before the eye is closed (without sutures). From this point the operation can proceed according to the surgeon's standard procedure. Postoperative medical care of the patient should also follow the surgeon's standard procedure.

WARNINGS

1. Check the label of the lens package for proper lens model and power.
2. Open the package to verify the dioptric power of the lens.
3. Handle the lens by the haptic portion. Do not grasp the optic with forceps and never touch the center of the optic once the lens is placed inside the eye.
4. Complete removal of viscoelastic from the eye after completion of the surgical procedure is essential. STAAR Surgical recommends a low molecular weight 2% hydroxypropyl methylcellulose (HPMC) or dispersive, low viscosity ophthalmic viscosurgical device.
5. STAAR Surgical recommends using the MICROSTAAR® MSI-PF or MSI-TF with SFC-45 cartridge delivery systems to insert the lens in the folded state.

NOTE: The primary viscoelastic used during the US FDA clinical trial was a low molecular weight 2% hydroxypropyl methylcellulose preparation.

ADVERSE EVENT REPORTING

Adverse Reactions and/or potentially sight-threatening complications that may reasonably be regarded as lens related must be reported to STAAR Surgical immediately. This information is being requested from surgeons in order to document potential long-term effects of EVO|EVO+ TICL implantation.

HOW SUPPLIED

EVO|EVO+ TICL is supplied sterile and non-pyrogenic in a sealed vial containing BSS. The vial is sealed within a sterile thermoformed tray placed in a box with labels and product information. Sterility is assured until the expiration date indicated on package label, if the tray and vial seal are not punctured or damaged. EVO|EVO+ TICL is steam sterilized. Patient Card Instructions: A Patient Card is supplied in the unit package. This card should be given to the patient to keep it as a permanent record of the implant and to show the card to any eye care practitioner seen in the future.

EXPIRATION DATE

The expiration date on the device package is the sterility expiration date. This device must not be used past the indicated sterility expiration date.

RETURN POLICY FOR STAAR EVO|EVO+ TICL

Contact STAAR Surgical. EVO|EVO+ TICL must be returned dry. Do not attempt to re-hydrate the lens.

WARRANTY AND LIMITATION OF LIABILITY

STAAR Surgical warrants that reasonable care was taken in making this product. STAAR Surgical shall not be responsible for any incidental or consequential loss, damage, or expense which arises directly or indirectly from the use of this product. To the extent permitted by law, STAAR Surgical's sole liability from any and all causes pursuant to EVO|EVO+ TICL shall be limited to the replacement of EVO|EVO+ TICL which is returned to and found to be defective by STAAR Surgical. This warranty is in lieu of and excludes all other warranties not expressly set forth herein, whether expressed or implied by operation of law or otherwise, including but not limited to, or any implied merchantability or fitness for use.

STORAGE

Store the lens at room/ambient temperature.

CAUTION:

- Do not autoclave the lens. Do not store at temperatures greater than 40 °C. Do not freeze. If temperature requirements are not met, return the lens to STAAR Surgical.
- STAAR Surgical EVO|EVO+ TICL and disposable accessories are packaged and sterilized for single use only. Cleaning, refurbishing and/or resterilization are not applicable to these devices. If one of these devices were reused after cleaning, refurbishing, it is highly probable that it would be contaminated and the contamination could result in infection and/or inflammation.

REFERENCES/BIBLIOGRAPHY

1. Bylsma SS, Zalta AH, Foley E, Osher RH: Phakic Posterior Chamber Intraocular Lens Pupillary Block. J Cataract Refract Surg. 2002:28:2222-2228.
2. Sanders DR: Actual and Theoretical Risks for Visual Loss following use of the Implantable Contact Lens for Moderate to high Myopia. J Cataract Refract Surg. 2003:29:1323-1332.
3. Sanders DR, Vukich JA, Doney K, Gaston M: U.S. Food and Drug Administration Clinical Trial of the Implantable Contact Lens, Moderate to High Myopia, Ophthalmology 2003: 110:255-266.
4. Sanders DR: Postoperative Inflammation after Implantation of the Implantable Contact Lens. Ophthalmology 2003:110:2335-41.
5. Edelhauser HF, Sanders DR, Azar R, Lamielle H: Corneal endothelial assessment after ICL implantation. J Cataract Refract Surg 2004: 30:576-583.
6. Sanders DR, Doney K, Pico M: U.S Food and Drug Administration Clinical Trial of the Implantable Collamer Lens for Moderate to High Myopia, Three-Year Follow-up. Ophthalmology 2004:111:1683-1692.
7. Lege BAM, Haigis W, Neuhann TF, Bauer MH: Age-Related Behavior of Posterior Chamber Lenses in Myopic Phakic Eyes During Accommodation Measured By Anterior Segment Partial Coherence Interferometry. J Cataract Refract Surg. 2006:32:999-1006.
8. Sanders DR: Matched Population Comparison of the Visian Implantable Collamer Lens and Standard Lasik for Myopia of -3.00 to -7.88 Diopters. J Refract Surg. 2007:23:537-553.
9. Sanders DR, Sarver EJ: Standardized Analyses of Correction of Astigmatism with the Visian Toric phakic Implantable Collamer Lens. J Refract Surg. 2007:23:649-660.
10. Schallhorn S, Tanzer D, Sanders DR, Sanders ML: Randomized Prospective Comparison of Visian Toric Implantable Collamer Lens and Conventional Photorefractive Keratectomy for Moderate to High Myopic Astigmatism. J Refract Surg. 2007:23:853-867.
11. Sanders DR, Schneider D, Martin R, Brown D, Dulaney D, Vukich J, Slade S, Schallhorn S: Toric implantable Collamer Lens for Moderate to High Myopic Astigmatism. Ophthalmology 2007:114:54-61.
12. Sanders DR: Anterior Sub-capsular Opacities and Cataracts 5 Years after Surgery in the Visian Implantable Collamer Lens FDA Trial. J Refract Surg 2008:24:566-570.
13. Sanders DR, Sanders ML: Comparison of the Toric Implantable Collamer Lens and Custom Ablation LASIK for Myopic Astigmatism. J Refract Surg. 2008:24:773-778.
14. Sanders DR, Bernitsky DA, Harton PJ, Rivera RP: The Visian Myopic Implantable Collamer Lens Does Not Significantly Affect Axial Length Measurement With the IOL Master. J Refract Surg. 2008:24:957-959.
15. Chung Ty, Park SC, Lee MO, Ahn K, Chung ES: Changes in Iridocorneal Angle structure and Trabecular Pigmentation With STAAR Implantable Collamer Lens During 2 Years. J Refract Surg. 2009:25:251-258.
16. Allan B, Argeles-Sabate I, Mamalis N: Endophthalmitis Rates after Implantation of the Intraocular Collamer Lens; Survey of users between 1998 and 2006. J Cataract Surg. 2009: 35:766-769.
17. Shimizu K, Kamiya K, Igarashi A, Shiratani T: Early Clinical outcomes of implantation of posterior chamber phakic intraocular lens with a central hole (Hole ICL) for moderate to high myopia. Br J Ophthalmol. 2012 Mar; 96 (3): 409-12. doi: 10.1136/bjophthalmol- 2011-300148. Epub 2011 Jul 6.
18. Uozato H, Shimizu K, Kawamorita T, Ohmoto F. Modulation transfer function of intraocular collamer lens with a central artificial hole. Graefes Arch Clin Exp Ophthalmol. 2011 Jul;249(7):1081-5. doi: 10.1007/s00417-010-1602-8. Epub 2011 Jan 13.
19. Kawamorita T, Uozato H, Shimizu K. Fluid dynamics simulation of aqueous humour in a posterior-chamber phakic intraocular lens with a central perforation. Graefes Arch Clin Exp Ophthalmol. 2012 Jun;250(6):935-9. doi: 10.1007/s00417-011-1850-2. Epub 2011 Nov 1.
20. Shimizu K, Kamiya K, Igarashi A, Shiratani T. Intraindividual comparison of visual performance after posterior chamber phakic intraocular lens with and without a central hole implantation for moderate to high myopia. Am J Ophthalmol. 2012 Sep;154(3):486-494.e1. doi: 10.1016/j.ajo.2012.04.001. Epub 2012 Jul 20.
21. Kamiya K. Visual performance after posterior chamber phakic intraocular lens implantation for myopia. Expert Review of Ophthalmology Aug 2012, Vol. 7, No. 4: 299–301.
22. Alfonso JF, Lisa C, Fernández-Vega Cueto L, Belda-Salmerión L, Madrid-Costa D, Móntes-Micó R: Clinical outcomes after implantation of a posterior chamber collagen copolymer phakic intraocular lens with a central hole for myopic correction. J Cataract Refract Surg. 2013: 39-915-921.
23. Higueras-Esteban A, Ortíz-Gomariz A, Gutiérrez-Ortega R, Villa-Collar C, Abad-Móntes JP, Fernandes P, González-Meíjome JM: Intraocular Pressure after Implantation of the Visian Implantable Collamer Lens with CentraFLOW without Iridotomy. Am J Ophthalmol. 2013 Oct; 156 (4): 800-5. doi: 10.1016/j.i.ajo.2013.05.018. Epub 2013 Jul 20.
24. Pérez-Vives C, Ferrer-Blasco T, Madrid-Costa D, García-Lázaro S, Montés-Micó R. Optical quality comparison of conventional and hole-visian implantable collamer lens at different degrees of decentering. Am J Ophthalmol. 2013 Jul;156(1):69-76. e1. doi: 10.1016/j.ajo.2013.01.030. Epub 2013 Mar 28.
25. Ferrer-Blasco T, García-Lázaro S, Belda-Salmerón L, Albarrán-Diego C, Montés-Micó R. Intra-eye Visual Function Comparison With and Without a Central Hole Contact Lens-Based System: Potential Applications to ICL Design: [1] Journal of Refractive Surgery29.10 (Oct 2013): 702-707.
26. González-López F, Bilbao-Calabuig R, Mompean B, de Rojas V, Luezas J, Djodeyre MR, Beltrán J. Intraocular pressure during the early postoperative period after 100 consecutive implantations of posterior chamber phakic intraocular lenses with a central hole. J Cataract Refract Surg. 2013 Dec;39(12):1859-63.
27. Pérez-Vives C, Ferrer-Blasco T, Madrid-Costa D, García-Lázaro S, Montés-Micó R. Visual quality comparison of conventional and Hole-Visian implantable collamer lens at different degrees of decentering. Br J Ophthalmol. 2014 Jan;98(1):59-64. doi: 10.1136/bjophthalmol-2013-303787. Epub 2013 Nov 18.
28. Huseynova T, Ozaki S, Ishizuka T, Mita M, Tomita M. Comparative study of 2 types of implantable collamer lenses, 1 with and 1 without a central artificial hole. Am J Ophthalmol. 2014 Jun;157(6):1136-43. doi: 10.1016/j.ajo.2014.01.032. Epub 2014 Feb 4.
29. Domínguez-Vincent A, Ferrer-Blasco T, Pérez-Vives C, Esteve-Taboada JJ, Montés-Míco R. Optical quality comparison between 2 collagen copolymer posterior chamber phakic intraocular lens designs. J Cataract Refract Surg. 2015; 41:1268-1278.
30. Lisa C, Naveiras M, Alfonso-Bartolozzi B, Belda-Salmerón L, Montés-Micó R, Alfonso JF, Posterior chamber collagen copolymer phakic intraocular lens with a central hole to correct myopia: One-year follow-up. J Cataract Refract Surg. 2015: 41(6):1153–1159.
31. Kamiya K, Shimizu K, Ando W, Igarashi A, Iijima K, Koh A. Comparison of vault after implantation of posterior chamber phakic intraocular lens with and without a central hole. J Cataract Refract Surg. 2015 Jan;41(1): 67-72. doi: 10.1016/j.jcrs.2014.11.011.

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SYMBOL DEFINITIONS

MD	Medical device
	Do not re-use
STERILIZE	Do not resterilize
	Do not use if the product sterile barrier system or its packaging is compromised
$\varnothing_B$	Body diameter (Optic diameter)
$\varnothing$	Overall diameter
	Single sterile barrier system with protective packaging outside
	Importer into the European Union
	Use-by date
D	Diopter
31	Date
	Caution
BIO	Contains biological material of animal origin
Rx Only	U.S. (Federal) law restricts this device to sale by or on the order of a physician
0°C 40°C RT	Store at room/ambient temperature. Do not freeze. Do not expose to temperature greater than 40°C
STERILE	Sterilized using steam
EC REP	Authorized representative in the European Community
CE	CE conformity marking per European Council Directive 93/42/EEC or European Council Regulation (EU) 2017/745
	Manufacturer
	Date of manufacture
US	Country of manufacture–United States
CH	Country of manufacture–Switzerland
UDI	Unique Device Identifier
REF	Catalogue number
OD	Right eye
OS	Left eye
SN	Serial number
SPH	Spherical power
CYL	Cylindrical power
AXS	Axis
SE	Spherical equivalent power
edfu.staar.com +1-800-352-7842 +41 32 332 8888	Consult electronic instructions for use
	Health care center or Doctor