The STAAR Visian ICL and the Visian TORIC ICL (Visian TICL™) are posterior chamber phakic intraocular lenses. Made of Collamer, STAAR’s proprietary collagen copolymer, the lens rests behind the iris in the ciliary sulcus. This unique material contains a small amount of collagen, which provides excellent biocompatibility and superior optical capability. The lens is gently folded and injected into the anterior chamber through a 3.0mm, temporal, clear corneal incision. The ICL is then carefully positioned by manipulating the footplates of the lens posterior to the iris plane and into the sulcus.

Visian ICL - Myopia

Visian ICL - Hyperopia

Toric ICL - Myopia

Available Powers

News / Publications

Courses / Seminars

The ICL exhibits the following features:
• Small Incision / Foldability – 3.0mm Incision
• Posterior Chamber Implant – Invisible in the Eye
• Sulcus Locating - Allows for a Toric Option
• Made of Collamer – a proprietary biocompatible material
• Experience - 5 Lens Designs and approximately 40,000 Implants
• Wide Treatment Range

The myopic ICL is used in the correction of nearsightedness, the Toric ICL is capable of correcting nearsightedness with astigmatism while the hyperopic ICL is capable of correcting farsightedness. Unlike laser refractive surgery, the ICL is removable and does not permanently alter the shape or structures of the eye.
The ICL is currently available in three models – ICM for myopia, ICH for hyperopia and TICM for Toric ICL for myopia. There have been approximately 40,000 ICL’s implanted worldwide. Extensive development has been undertaken to deliver the most recent version of the ICL - V4. Version 4 of the ICL is optimally vaulted to produce consistent clearance from the crystalline lens; an improvement over earlier versions of the lens. Ongoing development of sizing methods have virtually eliminated previous problems due to inadequate vaulting through undersizing.

Results: Spherical ICL = 0.13 microns, LASIK = 0.39 microns.
Coma ICL = 0.22 microns, LASIK = 0.46 microns.
The Visian ICL™ also provides excellent quality of vision. In a comparison of induced aberrations, ten Implantable Contact Lens patients and ten LASIK patients with a range of myopia from –8.0 to –10.0D were evaluated using wavefront analysis at least six months postoperatively. The results of these measurements of spherical and coma aberrations are shown above with simulations of the actual effect on vision. The coma and spherical results have been combined; both comparisons have a significance of p<0.001.

**Biocompatibility**

The ICL is made with Swiss precision from Collamer®. The collagen component in Collamer repels the protein molecules that are attracted to silicone lenses, which cause fibrosis, while attracting a monolayer of fibronectin that isolates the lens from the immune system, virtually eliminating the possibility of an immune response. The result is "exquisitely quiet eyes...even in uveitis and diabetic patients".  

Large, well-studied cohorts show that the ICL demonstrates no evidence of long-term inflammation clinically or with the laser-flare meter.  

**Optical and mechanical advantages**

Collamer has a molecular size of only 100nm, shorter than the wavelength of visible light. This results in an optimal refractive index for maximum light transmission and minimum glare and halo. The collagen copolymer Collamer provides ideal flexibility for injectable use, unfolding gently and predictably in the eye.

"If we (the surgeons) have a product that delivers excellent quality of vision, an excellent product that has a safe margin ... I think that the patients will trust the physicians to say if you want the best quality of vision, this is your choice, the ICL would be your best option." John A. Vukich, MD, ASCRS, June 2002.

ICL Didactic Training Course Program

2005

- February 4  **Italy**, Rome (ESCRS Winter Meeting)
- February 12  **USA**, Phoenix/Arizona
- February 17-18  **Dominican Republic**, Santo Domingo
- February 26  **Turkey**, Istanbul
- March 4  **South Africa**, Capetown (tentative)
- March 12  **Austria**, Baden (Vienna)
- March 28  **Malaysia**, Kuala Lumpur
- April 2  **Singapore**, Singapore
- April 4  **Singapore**, Singapore
- April 10  **UAE**, Dubai
- April 7-9  **Dominican Republic**, Santo Domingo
- May 19-21  **Dominican Republic**, Santo Domingo
- May 28  **Belgium**
- May 30  **Russian**, Moscow
- June (date to be set)  **Mexico**, Mexico City
- June 9-11  **Dominican Republic**, Santo Domingo
- June 18  **England**, London
- August 16 or 17  **South Africa**, Durban
- September 1 or 2  **Brazil**, Fortaleza
- September 9-14  **Portugal**, Lisbon (ESCRS Meeting)

Register for ICL Course

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**Visian ICL - Myopia**
<table>
<thead>
<tr>
<th>Spherical Power</th>
<th>Optical Diameter (A)</th>
<th>Optic/Haptic Thickness (B)</th>
<th>Overall Height (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3.0D to -12.0D</td>
<td>5.50mm</td>
<td>0.3 - 0.5mm</td>
<td>1.15 - 1.77mm</td>
</tr>
<tr>
<td>-12.5D to -13.5D</td>
<td>5.25mm</td>
<td>0.5mm</td>
<td>1.08 - 1.78mm</td>
</tr>
<tr>
<td>-14.0D to -16.5D</td>
<td>5.00mm</td>
<td>0.5 - 0.6mm</td>
<td>1.12 - 1.89mm</td>
</tr>
<tr>
<td>-17.0D to -23.0D</td>
<td>4.65mm</td>
<td>0.5 - 0.7mm</td>
<td>1.19 - 2.05mm</td>
</tr>
</tbody>
</table>

(Depending on market approval)

**Visian ICL - Hyperopia**
**Spherical Power** | **Optical Diameter (A)** | **Optic/Haptic Thickness (B)** | **Overall Height (C)**
--- | --- | --- | ---
+3.0D to +12.0D | 5.50mm | 0.2mm | 1.25 - 2.29mm
+12.5D to +13.5D | 5.50mm | 0.2mm | 1.61 - 2.36mm
+14.0D to +16.5D | 5.50mm | 0.2mm | 1.68 - 2.49mm
+17.0D to +22.0D | 5.50mm | 0.2mm | 1.82 - 2.79mm

*Depending on market approval

**TORIC ICL - Myopia**

The Toric ICL™ carries the exact same dimensions as the myopic ICL and is available for myopia –6.0 to –23.0 dipoters with +1.0 to +6.0 diopters of cylinder in 0.5 diopter increments.
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<tr>
<td>Model</td>
<td>CE Approval</td>
<td>Canadian Approval</td>
<td>Korean Approval</td>
</tr>
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</tr>
<tr>
<td>ICM115V4</td>
<td>-3.0 to -23.0</td>
<td>-6.0 to -20.0</td>
<td>-3.0 to -23.0</td>
</tr>
<tr>
<td>ICM120V4</td>
<td>-3.0 to -23.0</td>
<td>-6.0 to -20.0</td>
<td>-3.0 to -23.0</td>
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<tr>
<td>ICM125V4</td>
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<tr>
<td>ICM130V4</td>
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<td>-3.0 to -23.0</td>
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<tr>
<td>ICM135V4</td>
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<tr>
<td>ICH110V3</td>
<td>+3.0 to +21.0</td>
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<tr>
<td>ICH115V3</td>
<td>+3.0 to +21.0</td>
<td>+3.0 to +20.0</td>
<td></td>
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<td>TICM115V4</td>
<td>-6.0 to -23.0 sph +1.0 to +6.0 cyl</td>
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Caution -- Investigational Device. Limited by Federal (or United States) law to investigational use.

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**Intraocular Lens**

- Effects of lens material properties on unwanted reflections (PDF)
- Reversing the STAAR Toric IOL: Stabilizing the Placement Within the Bag (PDF)

**AquaFlow**

- AquaFlow Glaucoma Microsurgery (PDF)
- Glaucoma Overview (PDF)
- Comparison of deep sclerectomy with collagen implant and trabeculectomy in open-angle glaucoma (PDF)
- Nonpenetrating filtering surgery with or without a collagen drainage device offers advantages over trabeculectomy or medication (PDF)
- A Surgeon’s Perspective on the AquaFlow Procedure for Open-Angle Glaucoma Patients (PDF)
- AquaFlow Brochure (PDF)
- Drainage device opens realm of non-penetrating glaucoma surgery - Please email STAAR to request a hardcopy

**The Sonic Wave**

- Users Group 2001 ASCRS (Video) - Please email STAAR for a copy
- Users Group 2002 ASCRS (Video) - Please email STAAR for a copy
- Video overlay systems aid in teaching, learning phaco (PDF)
- Filtering device helps prevent surges during phaco - Please email STAAR to request a hardcopy
- Sonic Wave Brochure (PDF)
- Sonic Wave: Advances in Ophthalmic Technology (PDF)
- Fluidics promote stability in versatile phaco system (PDF)
- Cruise Control Brochure (Front PDF)
- Cruise Control Brochure (Back PDF)
- Experience with the STAAR Sonic Wave (PDF)