

Setting a New Standard for IOLs

- ONLY the TECNIS® IOL has claims approved by the FDA for reduced total ocular spherical aberration to essentially zero⁵
- ONLY the TECNIS® IOL has a patented wavefront design based on corneal measurements of actual cataract patients
- ONLY the TECNIS® IOL has claims approved by the FDA for improved functional vision⁵
- ONLY the TECNIS® IOL has claims approved by the FDA for improved night driving simulator performance, providing a 14 meter increase in identification distance⁵
- ONLY the TECNIS® IOL provides Safer, Sharper Vision in two material platforms

For more information, contact your local AMO representative or visit www.TECNISIOL.com.

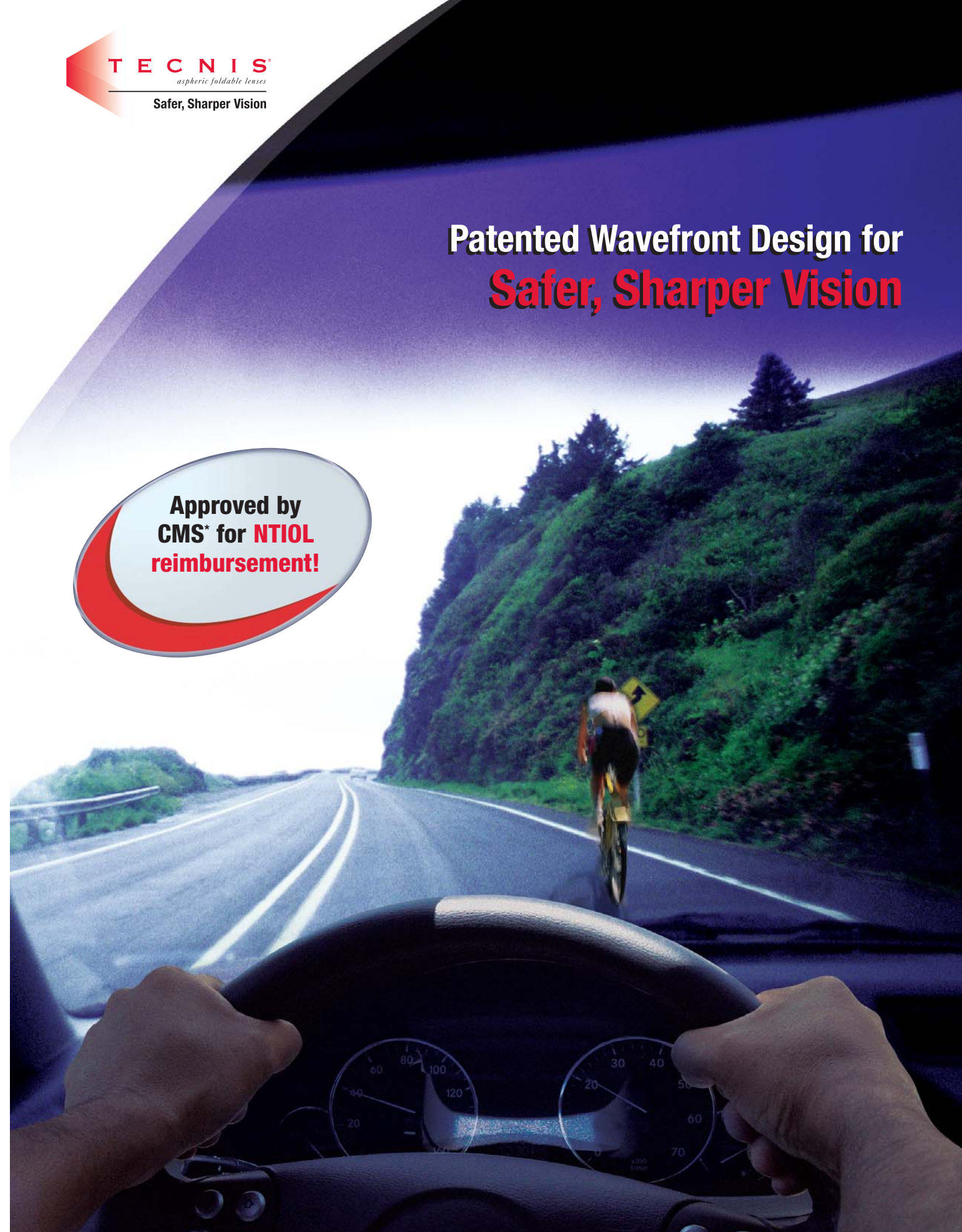


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Patented Wavefront Design for
Safer, Sharper Vision

Approved by
CMS* for **NTIOL**
reimbursement!

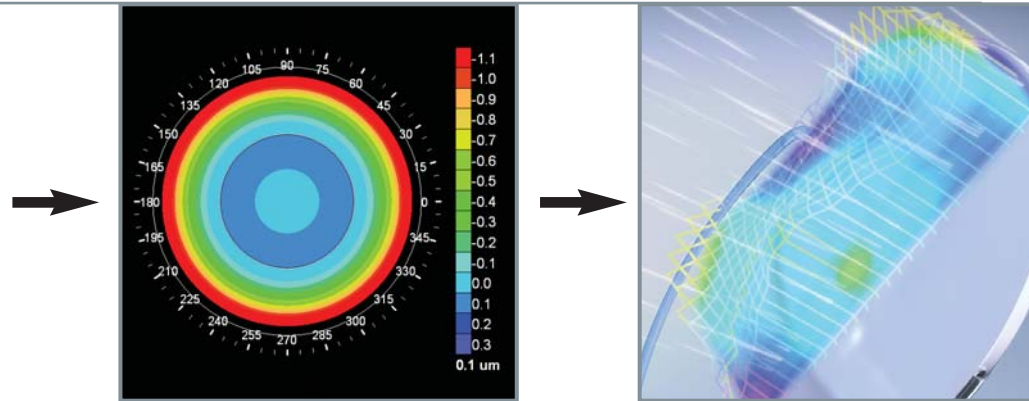
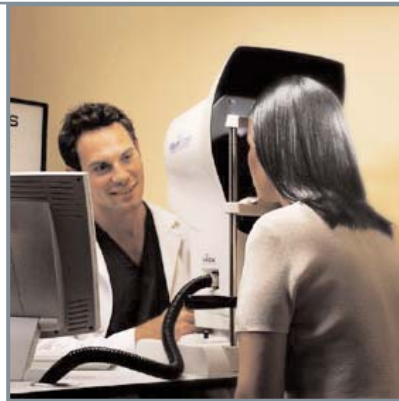


Best Possible Vision is Safer Sharper Vision



Superior design with the TECNIS® IOL

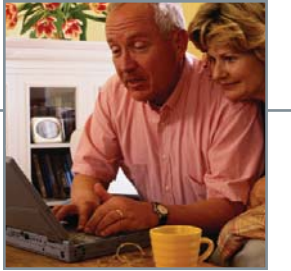
- The TECNIS® IOL is the FIRST and ONLY IOL with a patented wavefront-designed optic for more youthful vision
- Clinical study data submitted to the FDA demonstrates that the TECNIS® IOL reduced spherical aberration to essentially zero^{1,3-6}
- The TECNIS® IOL wavefront design provides Safer, Sharper Vision by targeting zero residual spherical aberration



The average cornea eye (ACE) model was developed by collecting actual wavefront measurements from a significant sampling of cataract patients¹

The TECNIS® optic was designed using the ACE model to compensate for the spherical aberration of the cornea^{1,2}

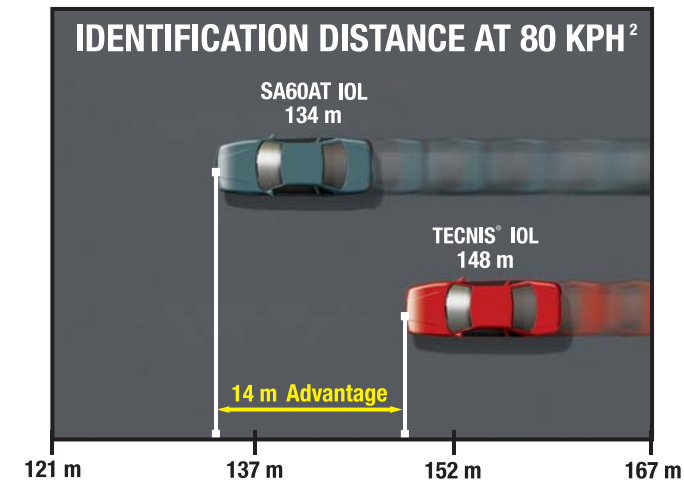
TECNIS® IOLs are the **FIRST** and **ONLY** IOLs with claims approved by the FDA for:



- Reduced spherical aberration²
- Improved functional vision²
- Improved night driving simulator performance²

TECNIS® IOLs are likely to provide a meaningful safety benefit to elderly drivers⁷

- In the study, the TECNIS® lens improved the identification distance for a pedestrian hazard by 14 meters compared to a traditional spherical lens implant²
- At 89 kph, the 14 meter increase in visibility with the TECNIS® lens results in an additional half-second (0.50 second) to perceive and react to a driving hazard compared to a traditional spherical lens implant^{2,7}
 - In comparison, the addition of the center high-mounted stop lamps only improved driver reaction time by 0.35 seconds⁷

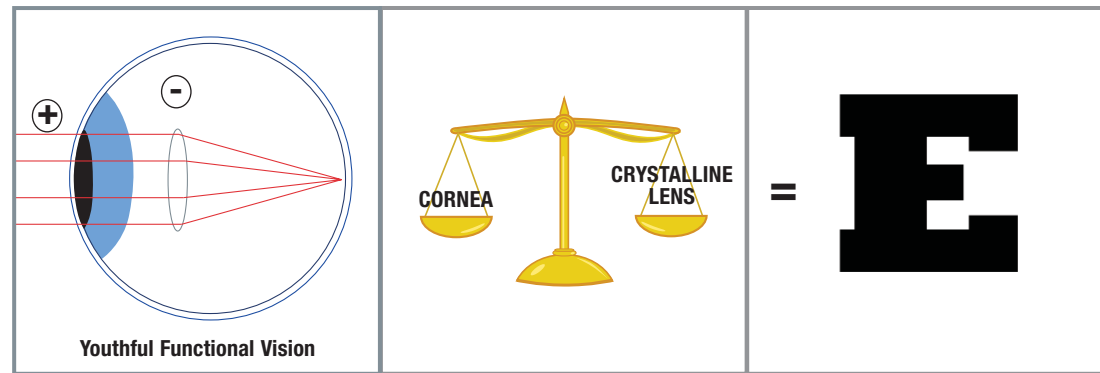


In a simulated night driving study, the TECNIS® lens provided an additional 14 meters of identification distance at 89 kph when compared to the SA60AT IOL.²

Best Possible Vision Targets

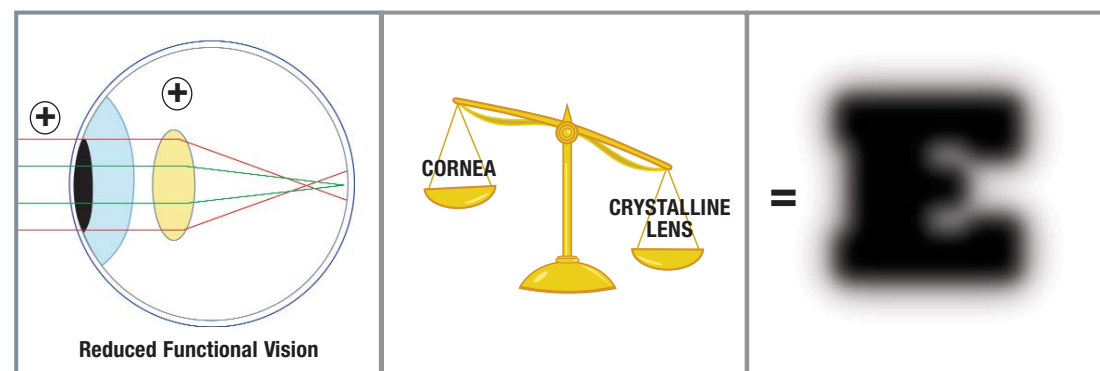
Zero Spherical Aberration

On average, the young eye has zero spherical aberration⁸⁻¹³



- Peak visual performance occurs at age 19; this is when contrast sensitivity and quality of vision peak⁸⁻¹³
- The negative spherical aberration of the young crystalline lens balances the positive spherical aberration of the cornea²
- Light on the retina is sharply focused, producing a high-quality, sharp image

With age, spherical aberration increases, reducing functional vision^{3,14}

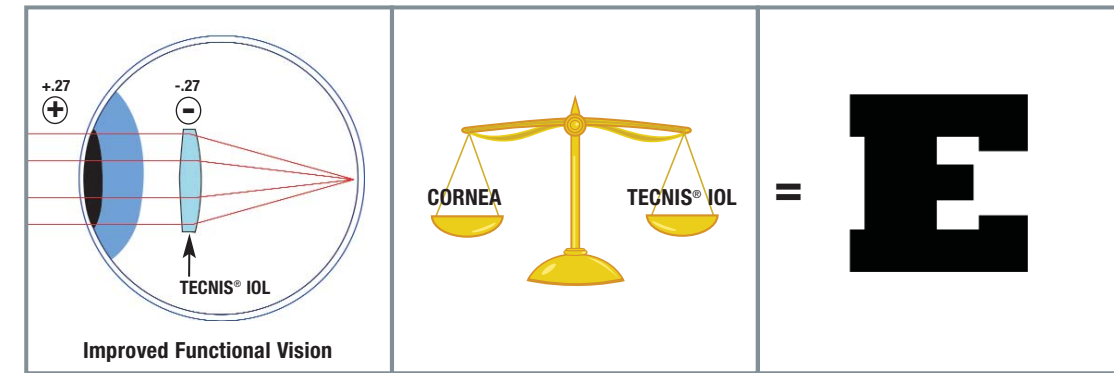


- The aging crystalline lens loses its ability to compensate for positive corneal spherical aberration
- Spherical aberration causes diffusion of light resulting in blurred vision, reduced contrast sensitivity, and decreased functional vision
- Patients with decreased functional vision may lack confidence in low light situations or have difficulty with night driving or glare¹⁵

“Peak visual performance in young adults is associated with zero spherical aberration.”

– Pablo Artal, PhD, University of Murcia, Murcia, Spain

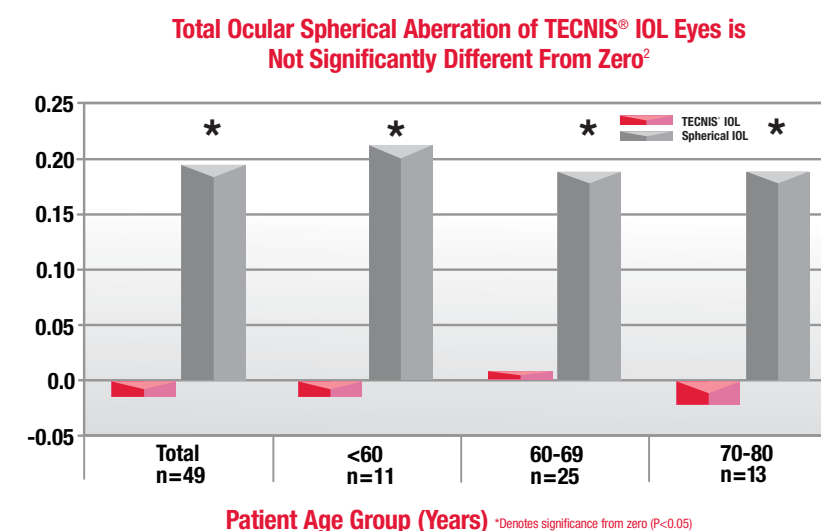
The TECNIS® IOL reduces spherical aberration for improved functional vision



- Wavefront aberration analysis confirms that the average human cornea has +0.27 microns of spherical aberration throughout life¹⁶
- The TECNIS® IOL corrects for -0.27 microns of spherical aberration, just like the average crystalline lens did between the ages of 19-25
- Clinical data submitted to the FDA showed that the TECNIS® IOL offers a significant improvement in functional vision

The TECNIS® IOL reduced spherical aberration to essentially zero²

A clinical study showed that average ocular spherical aberration of TECNIS® IOL eyes was not significantly different from zero²



Mean Spherical Aberration Measurements, 90±15 Days Postoperatively, Study 001: Z9000: N=25; Lens with Spherical Optic: N=24²

Best Possible Vision Moves

Beyond 20/20 Visual Acuity

Zero spherical aberration means peak visual performance⁸⁻¹³

Residual Spherical Aberration (SA) of Monofocal Lenses (4 mm pupil)¹⁶

Lens	TECNIS® IOL	AcrySof® IQ IOL	B&L LI61A0 IOL	Spherical IOL
Point Spread Function**				
20/20*				
Average Corneal SA	+0.27	+0.27	+0.27	+0.27
Lens SA**	-0.27	-0.17	0.0	+0.15
Total Residual SA	0.0	+0.10	+0.27	+0.42

*Images simulated using ZernikeTool, created by George Dai, PhD.

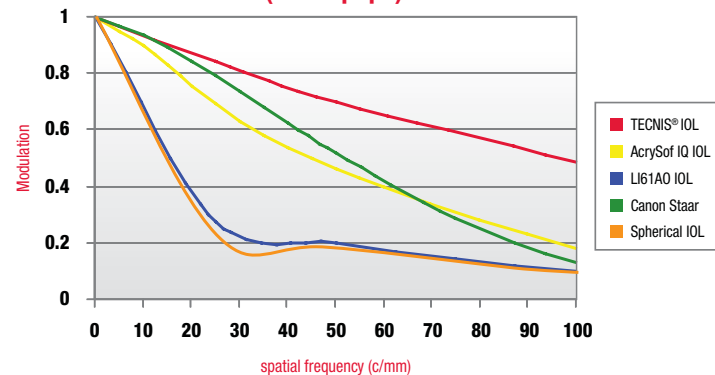
**The point spread function (PSF) is the shape of a single, concentrated ray of light as it is projected through a lens. PSF is used to describe the distortion caused by aberrations present in an optical system.

**SA correction of lens at corneal plane.

The TECNIS® IOL shows significant improvement in MTF over that of other aspheric lenses

In one study, the TECNIS® IOL shows over twice the improvement in modulation transfer function (MTF) at 100 c/mm versus AcrySof® IQ SN60WF and over three times the improvement in MTF at 100 c/mm versus LI61A0 and Canon Staar.¹⁶ In fact, LI61A0 performs similarly to a spherical lens.

MTF Comparison of Lens Models^{16*} (5 mm pupil)



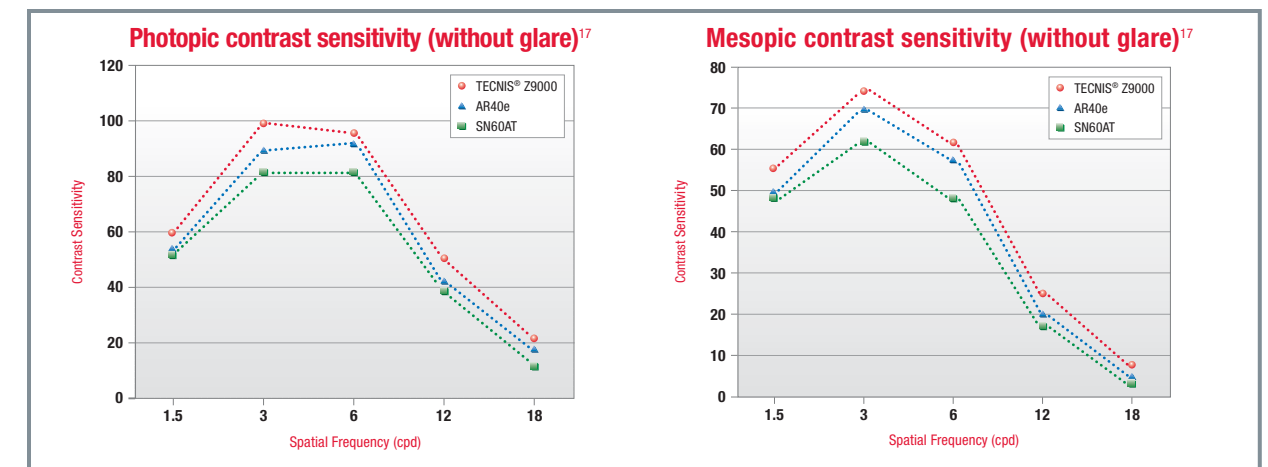
Modulation transfer function (MTF) measures the ability of an optical system to transfer contrast. The higher the MTF on the graph above, the higher percentage of contrast the lens is transferring for a given image.

(*Average Cornea Eye model)

Enhanced contrast sensitivity with the TECNIS® IOL

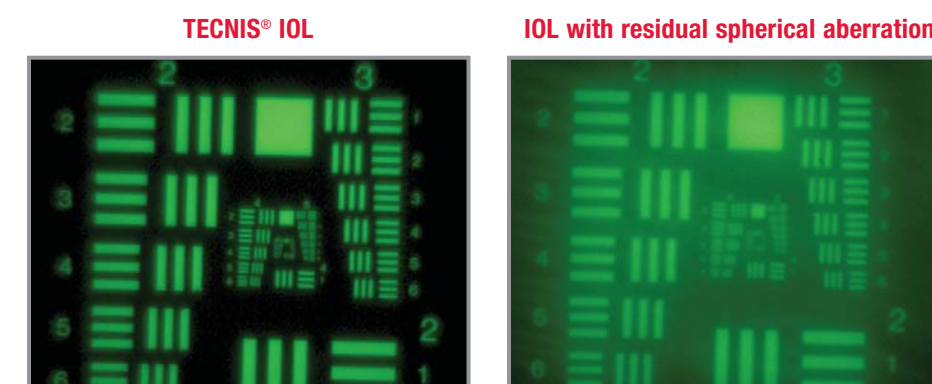
A prospective clinical study measured contrast sensitivity at varying light levels with three different IOLs including the TECNIS® IOL with a wavefront-designed surface and the AcrySof® Natural SN60AT blue-blocking IOL.

In one study, the TECNIS® IOL demonstrated a statistically significant improvement in mean contrast sensitivity in 19 out of 20 combinations¹⁷



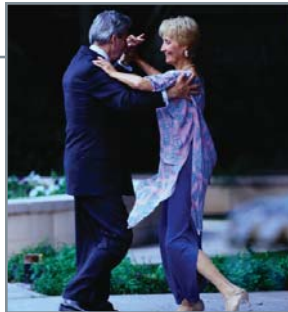
High-quality vision with the TECNIS® IOL

In aviation-type visual performance testing, vision in low-light (5 mm pupil) conditions was superior with TECNIS® IOL that fully corrects spherical aberration. These are actual images as seen in an eye model through the TECNIS® IOL versus an IOL with residual spherical aberration:¹⁶



Best Possible Vision Provides

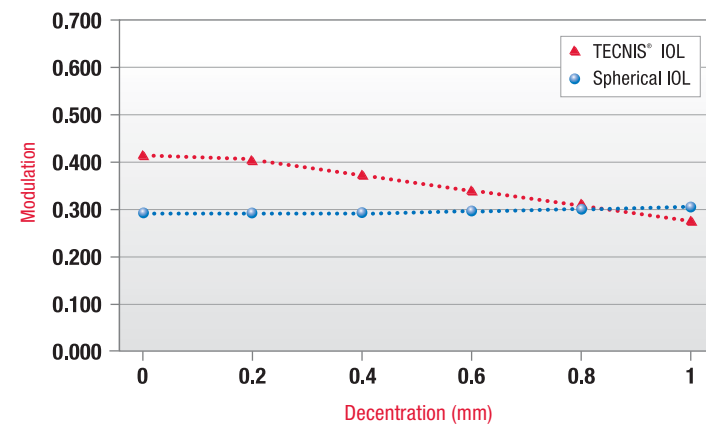
Optimal Optical Performance



Excellent Stability, Optimal Centration

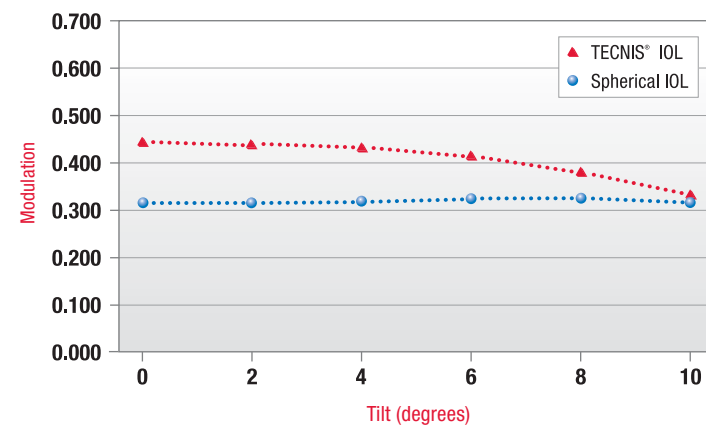
- With its proven three-piece design, the TECNIS® IOL is designed for stability and centration
- A recent meta analysis of peer-reviewed clinical publications indicates that 99.94% of lenses are decentered less than 0.8 mm and 99.99% of lenses are tilted less than 10 degrees¹⁹

MTF vs. Decentration^{18,19}



- The TECNIS® wavefront-designed IOL provides a visual benefit for patients over a spherical IOL even if decentered up to 0.8 mm¹⁸

MTF vs. Tilt^{18,19}



- The TECNIS® wavefront-designed IOL provides a visual benefit for patients over a spherical IOL even if tilted up to 10 degrees¹⁸

Modulation transfer function (MTF) measures the ability of an optical system to transfer contrast. The higher the MTF on the graph above, the higher percentage of contrast the lens is transferring for a given image.

Safer, Sharper Vision available in two proven materials: hydrophobic acrylic and silicone

- Full transmission of visible light with effective UV protection
- Vacuole-free material with proven biocompatibility²⁰
- Ideal Refractive Index, not associated with pupil reflections
- Easy-to-see blue PMMA haptics

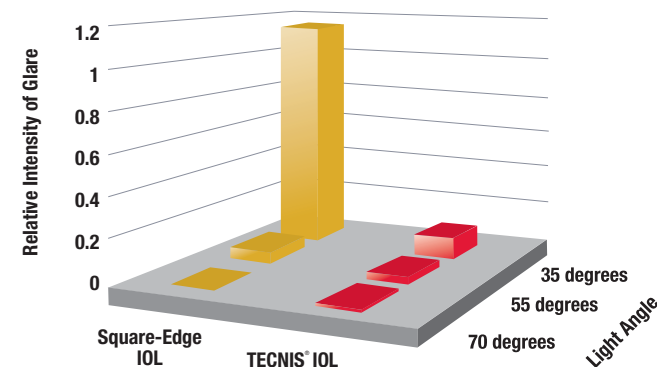
Patented OptiEdge™ design provides the benefits of a squared posterior edge (360-degree capsular contact) while reducing unwanted visual symptoms with a rounded anterior and sloping side edge

The rounded anterior edge is designed to scatter light, which can reduce internal reflections¹⁶

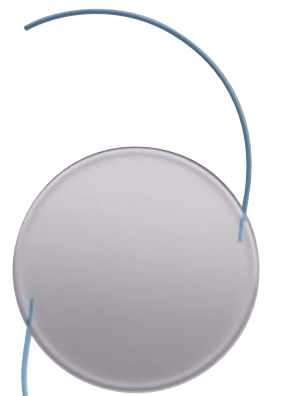
The sloping side edge minimizes potential for edge glare¹⁶

The squared posterior edge facilitates 360-degree capsular contact¹⁶

Edge Glare Intensity¹⁶



The TECNIS® IOL with OptiEdge™ design has been shown to have lower edge glare than a lens with double-squared edge design.¹⁶



TECNIS® Acrylic IOL ZA9003



TECNIS® CL Silicone IOL Z9002

Easy, Controlled Implantation with the UNFOLDER™ Implantation Systems

No implantation surprises

- Ease and control throughout the entire implantation process
- Unenlarged incision as small as 2.8 mm¹⁶
- Rod tip designed to protect the optic surface

The UNFOLDER™ Emerald Series Implantation Systems for AMO's acrylic IOLs



“The UNFOLDER™ Emerald XL is just very simple to use. It’s intuitive.”

– John D. Hunkeler, MD, Kansas City, MO

The UNFOLDER™ Silver Series Implantation Systems for AMO's silicone IOLs



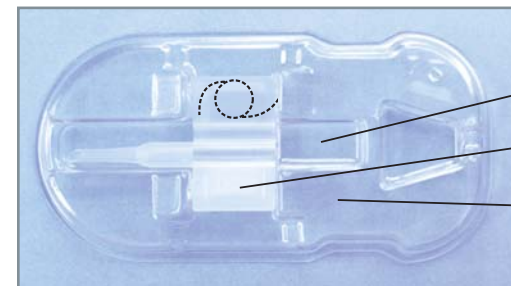
“The UNFOLDER™ Silver Series is an excellent IOL injection system. It’s simple to use. It provides the surgeon with excellent safety and control and precision when we’re implanting IOLs.”

– Ralph Chu, MD, Minneapolis, MN

The Advanced Cartridge packaging makes loading easy

	TECNIS® Acrylic IOL	TECNIS® CL Silicone IOL
Material	UV-Blocking	UV-Blocking
Refractive Index	1.47	1.46
Lens Model Number	ZA9003	Z9002
UNFOLDER™ handpiece	EMERALDT, EMERALDXL	SILVER, SILVERT
Cartridge	EMERALDC30	PSCST30
A-constant*	119.1	118.7

* A-constant is calculated theoretically; not based on clinical data



Loading Platform
Pre-positioned wings
Inner Thermoform tray

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* Medicare News. CMS Announces Approval of New Technology Intraocular Lens. CMS Office of Media Affairs. January 26, 2006 and August 11, 2006.

TECNIS® foldable intraocular lenses are indicated for primary implantation for the visual correction of aphakia in adults in whom a cataractous lens has been removed by phacoemulsification. The lenses are intended to be placed in the capsular bag. Rx Only. Precautions: Do not resterilize the lens; do not soak or rinse the lens with any solution other than sterile saline solution; do not store the lens in direct sunlight. Warnings: Surgeons should consider the risk/benefit ratio for adults with preoperative ocular pathology, including but not limited to inflammation, distorted eye and microbial infection. Adverse Events: Adverse events that have been documented as having occurred following intraocular lens implantation include, but are not limited to, corneal edema, iritis, lens dislocation, hyphema, macular edema and retinal detachment. For a complete listing of precautions, warnings and adverse events, refer to the package insert.

August 2006

TECNIS®
aspheric foldable lenses

Safer, Sharper Vision