New from STAAR for Safe and Easy Aspheric IOL Implantation

THE ASPHERIC PRELOADED INJECTION SYSTEM

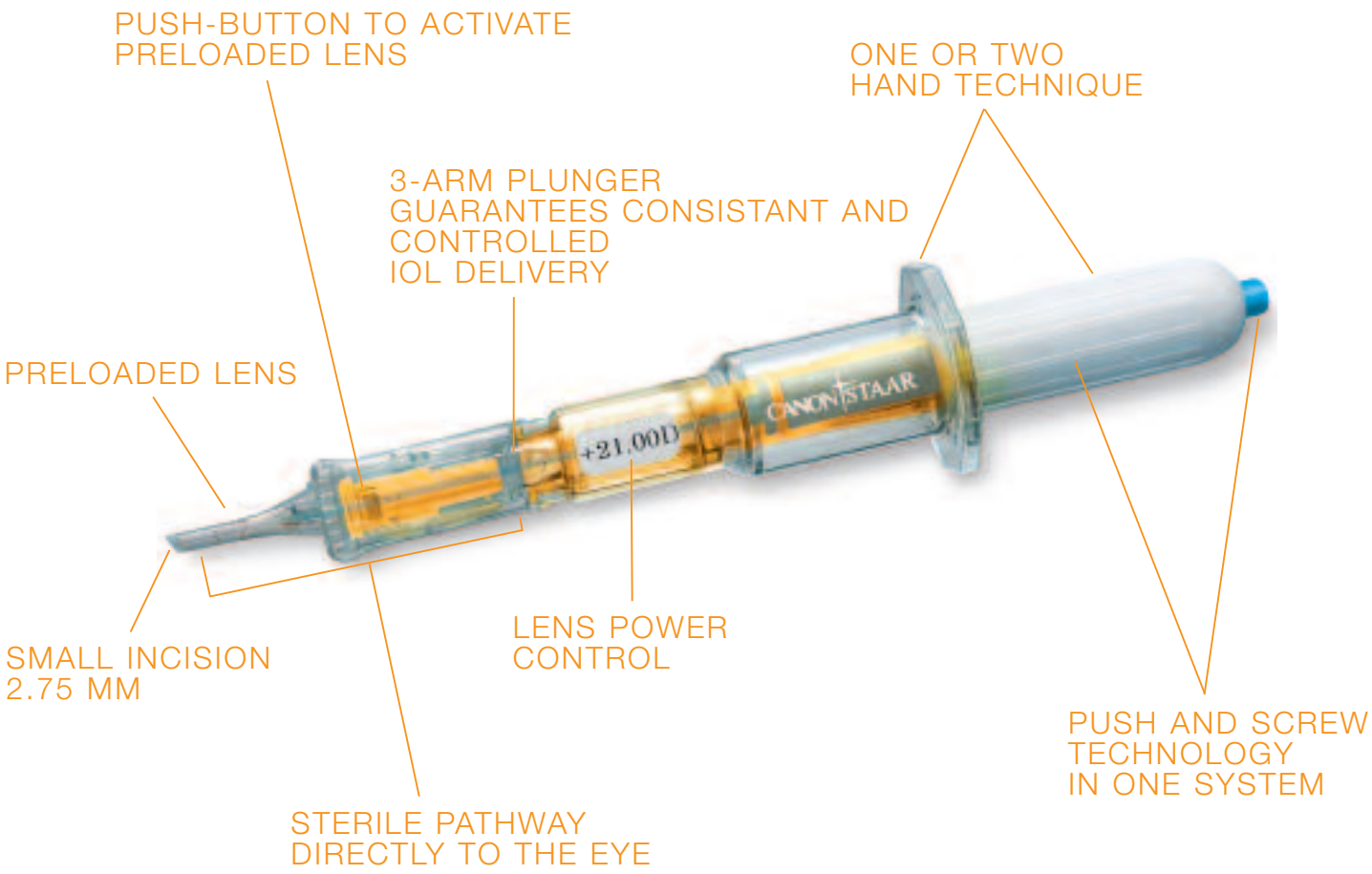
KS-3Ai

Preloaded

Hold the Future in Your Hands

PRELOADED INJECTION SYSTEM FOR SAFE SIMPLE AND EASY IOL DELIVERY

The KS3-Ai features an aspheric IOL preloaded in the injection system avoiding manual lens loading. The incision size is sub 3.0 mm, surgeons report successful implantation through a 2.75 mm incision[1]. The IOL delivery system is extremely easy to use and guarantees a sterile pathway directly into the eye. Surgery time is reduced and surgeons can focus on the surgery rather than lens loading.



"The Preloaded Injection System facilitates cataract surgery and I recommend it for usage to my collegues".
Dr Micheal Muller, South Africa

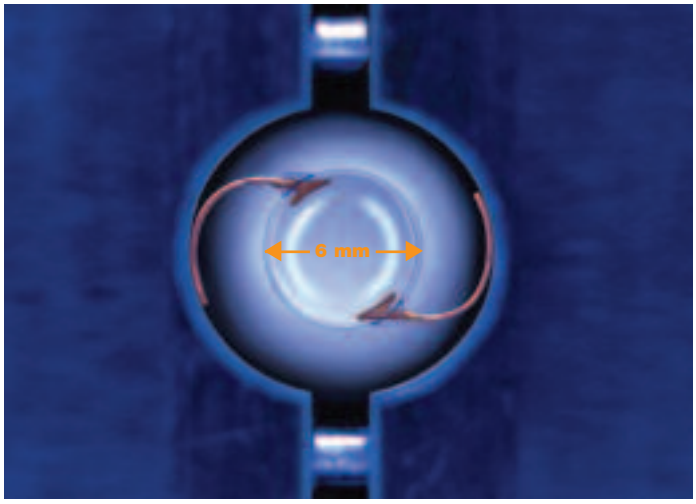
THE PRELOADED KS-3Ai REDUCES SURGICAL TIME AND IMPROVES EFFICIENCY

1) K. Shimizu, Kitasato University School of Medicine, Japan, Ophthalmology Times Europe, June 2006.

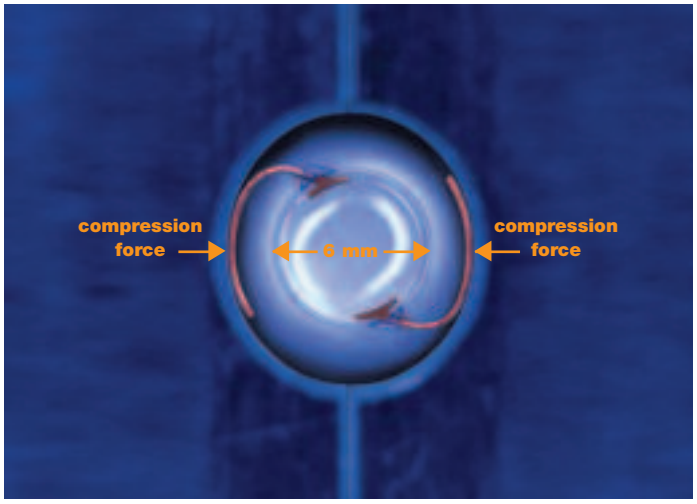
LENS STABILITY TO AVOID LENS MALPOSITIONING IS CRUCIAL FOR ASPHERIC IOLs

KS3-Ai demonstrates excellent lens stability due to its haptic material "polyimide". This material is the strongest known material used for IOL haptics. Dislocation, vaulting, optic axis tilt and rotation were analysed and confirm excellent results thus avoiding malpositioning of the IOL. The polyimide haptic material demonstrates superior strength quality over other haptic materials used such as PMMA or PVDF.[4] Malpositioning of an aspheric IOL can induce negative spherical aberration, thus reducing visual function. Therefore a stable lens position over time is key to achieve and maintain improved functional vision.

FUNCTION TEST BEFORE COMPRESSION



FUNCTION TEST DURING COMPRESSION



The function test analizes stress on the IOL optic when the IOL is compressed to 10 mm overall length. While the haptics compress, the optic of KS-3Ai remains stable. The KS-3Ai demonstrates excellent lens stability due to its polyimide haptics.

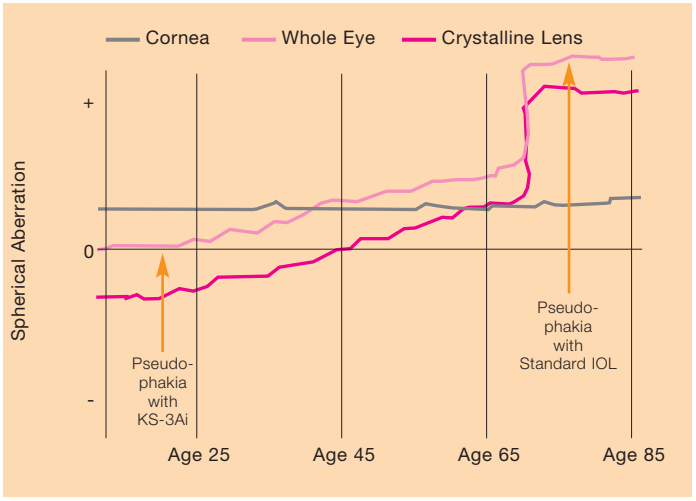
THE POLYIMIDE HAPTICS MAKE THE DIFFERENCE

4) H. Sakai. Biomechanics of a new foldable IOL – Mechanical properties. IOL & RS Vol. 17 No.3 Sep 2003 (23) 241.

THE KS3-Ai ASPHERIC OPTIC DESIGN PROVIDES CONTRAST SENSITIVITY LIKE THAT OF A 20 YEAR OLD

The human cornea remains largely unchanged over time and exhibits positive spherical aberration. The crystalline lens shows negative spherical aberration which decrease over time. In a very young eye, the combined positive corneal and negative physiological aberrations result in an overall zero spherical aberration. Best eyesight is achieved around the age of 20 years, with slightly positive spherical aberrations[2].

SPHERICAL ABERRATION[2]



CONTRAST SENSITIVITY WITH

STANDARD SPHERIC IOL ASPHERIC KS-3Ai

The KS3-Ai is designed to mimic the spherical aberration of a 20 year old with slightly positive aberrations. Visual function is improved in mesopic / low light conditions.

"The KS-3Ai is my lens of choice due to its outstanding handling benefits and improvement in functional vision for my patients." Prof Kimiya Shimizu, Japan

2) U. Devgan. Aspheric IOLs improve image quality for patients. OSN, April 2006.

CLINICAL EVIDENCE OF IMPROVED CONTRAST SENSITIVITY IN MESOPIC LIGHT CONDITIONS

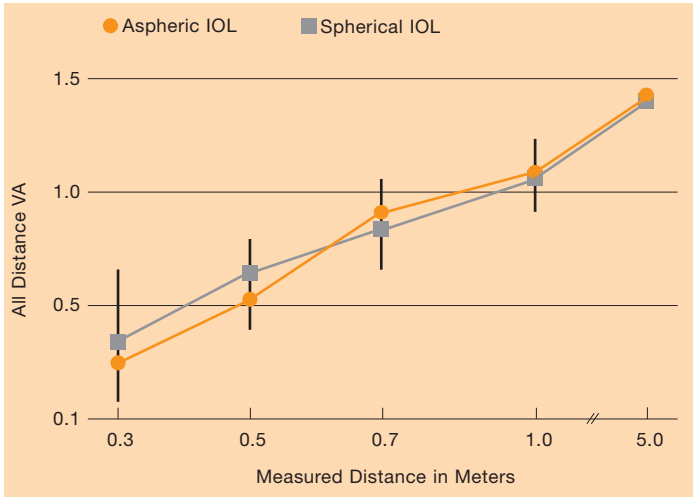
The comparison of contrast sensitivity under normal bright illuminance (about 200 lux) and under lower illuminance of twilight (about 50 lux) showed significantly better results at spatial frequencies of 3, 6 and 12 cyl/deg under 50 lux.

There is no difference under bright illuminance. This result implies improvement in visual function in twilight due to the aspheric optic of the KS-3Ai which corrects spherical aberration.

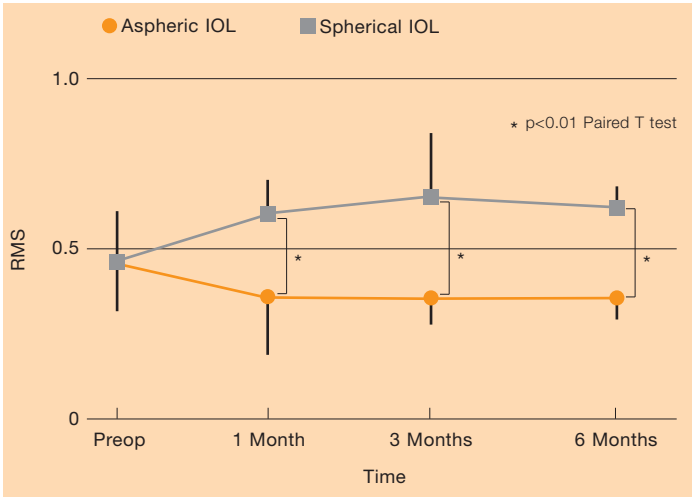
CONTRAST SENSITIVITY STUDY OF EYES WITH ASPHERIC IOL UNDER LOWER ILLUMINANCE[3]

80 eyes of 40 patients. Age (years) 69.8 ± 5.0		
	Aspheric IOL	**Spherical IOL**
Surgical Time (min)	6.5 ± 0.6	7.0 ± 0.9
Pupil Diameter (mm)	3.48 ± 0.8	3.47 ± 0.9

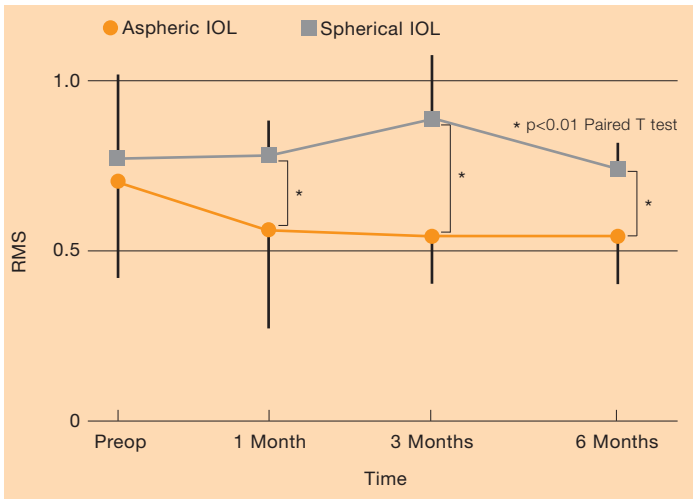
ALL DISTANCE VISUAL ACUITY (1 MONTH POSTOP)[3]



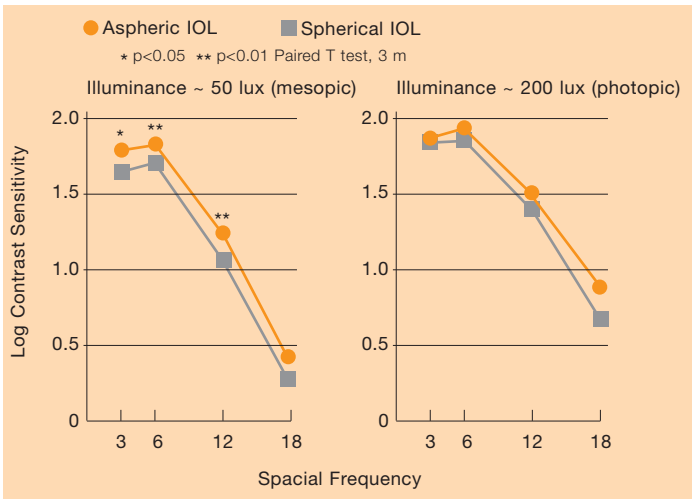
PROGRESSION OF SPHERICAL-LIKE ABERRATIONS[3]



PROGRESSION OF ALL HIGHER ORDER ABERRATIONS[3]



GRATING OPTOTYPE CONTRAST SENSITIVITY(BY ILLUMINANCE)[3]

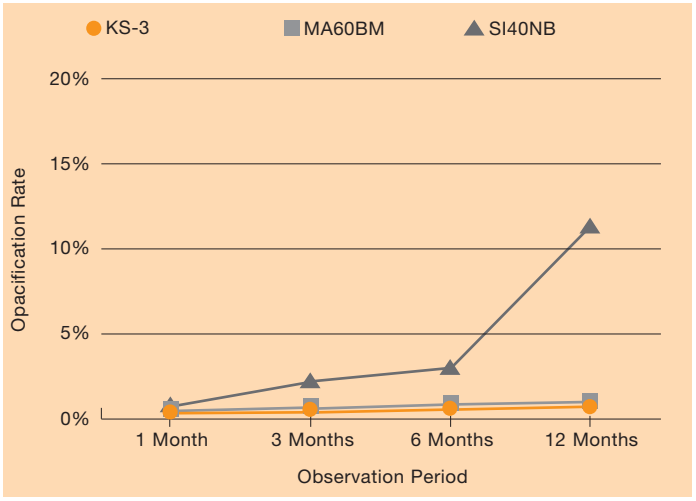


3) S. Otani, K. Miyata, T. Oshika. Contrast Sensitivity of Eyes with Aspheric IOL under Low Illuminance. JSCRS 2005 Kyoto.

EXCELLENT PCO RATES

In the comparative study[5] the Preloaded IOL achieved the lowest PCO values. An effective barrier is created at the square edges of the optic avoiding cell migration.

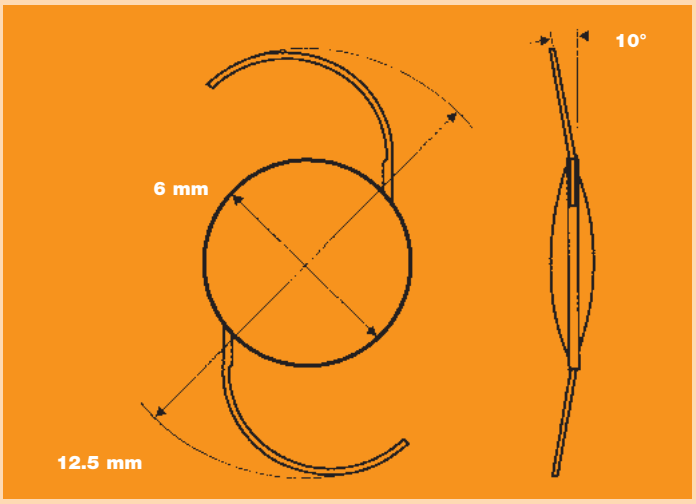
POSTERIOR CAPSULE OPACIFICATION
COMPARATIVE STUDY OF 3 IOLs



During the 12-months follow-up, the Preloaded KS-3 achieved the lowest PCO rate.

5) S. Yoshida, T. Yoshida, H. Matsushima, Y. Obara, Y. Adachi. New Quantitative Methods for Posterior Capsule Opacification. Journal of the Eye 21 (5): 661-666, 2004. Image: Nidek EAS-1000

PRODUCT SPECIFICATIONS



Lens Model	AQ-310Ai
Sterilisation	Ethylene Oxide Gas
Optic Design	Aspheric / Double Square Edge / Biconvex
Optic Diameter	6.0 mm
Optic Length	12.5 mm
Haptic Angle	10°
A-Constant	119.5
Diopter Range	+12.5D to+28.5D (0.5D increments)

DISTRIBUTED BY:

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