



AT LISA multifocal MICS IOLs

The first preloaded multifocal and multifocal toric MICS IOLs for a very high level of patient satisfaction.



We make it visible.



// PATIENTS' SATISFACTION
MADE BY CARL ZEISS

Patient's gratitude included

The family of AT LISA® multifocal IOLs is what many cataract or presbyopic patients with or without astigmatism have been waiting for: the chance to enjoy life with only minimal support from glasses.

"Incredible. With AT LISA my eyes are young again. I can again read the newspaper, drive my car at night and use my laptop without glasses."

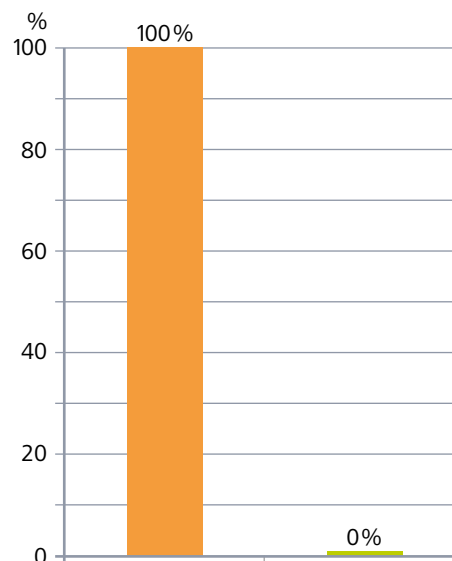
Mr. R. G., age 76

"Now with the AT LISA I am seeing better than I ever saw before even with good contact lenses."

Ms. M. K., age 49

"When going on my holiday destination, I like to start driving during the night and to reach my destination by day, which AT LISA allows me to still do."

Mr. P. W., age 49



When asked "Are you satisfied?" and "Would you recommend the AT LISA?" 100 % of the patients responded "Yes!"¹



The LISA concept ...

- L Light distributed asymmetrically** between distant (65 %) and near focus (35 %) for improved intermediate vision and greatly reduced halos and glare
- I Independency from pupil size** due to high performance diffractive-refractive micro-structure covering the complete 6.0 mm optical diameter
- S SMP technology** for a lens surface without any sharp angles for ideal optical imaging quality with reduced light scattering
- A Aberration correcting optimized aspheric optic** for better contrast sensitivity, depth of field and sharper vision

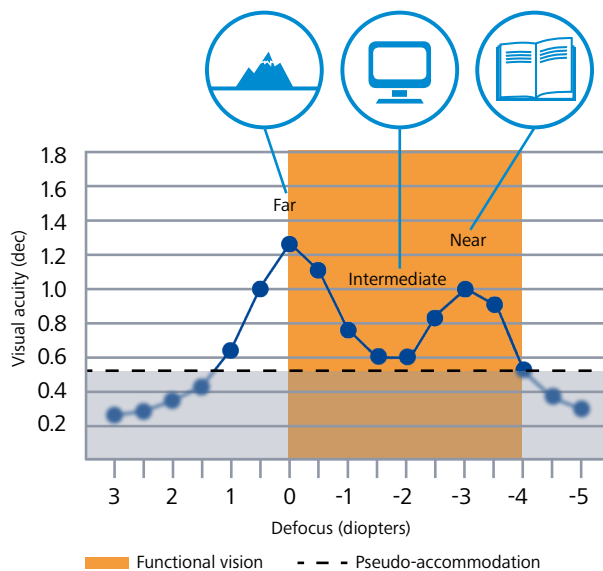
“MICS AT LISA is the multifocal IOL I use most frequently, in over 75 % of my cases. Its pupil independent character, its asphericity, its asymmetrical light distribution makes it to be the one that causes less photic phenomena such as halos and glare to my patients. My patients are simply happier with this IOL. I am sure that in the future the AT LISA will be remembered as the best multifocal IOL of this generation.”

Jorge L. Alió, MD, Vissum-Institute of Ophthalmology, Alicante, Spain

“My patients are simply happier with this IOL. I am sure that in the future the AT LISA will be remembered as the best multifocal IOL of this generation.”

... the solution for life without glasses

AT LISA binocular defocus curve (n = 100)^{2,3,4}



Enhanced depth of field

The optical design of AT LISA enhances the depth of field, which in turn enhances the static apparent accommodation. A “pseudo-accommodation” range of 5 D at a visual acuity of 0.6 is beyond the range of most “accommodating” IOLs.

More than 90 % of the patients do not need corrective glasses^{1,5,6}

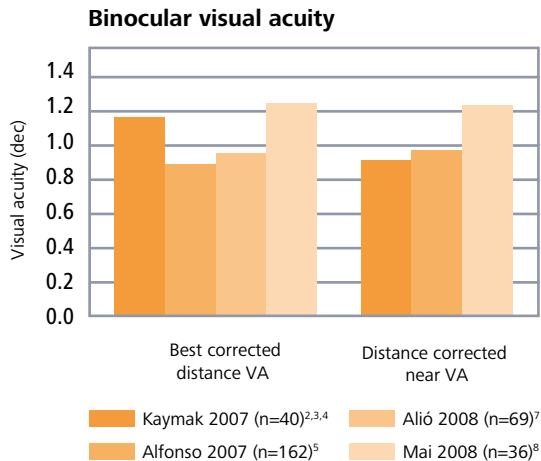
AT LISA has proven to be superior to other multifocal IOLs when it comes to the ultimate goal of independence from eyeglasses.



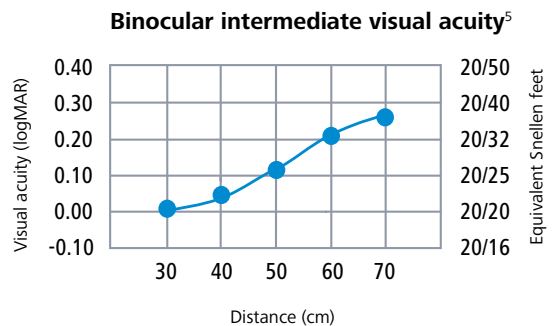
Advanced technology changes your patient's life

Many of your patients have the desire to live their life with only minimum support from glasses. They expect to have clear vision after surgery without undesirable optical phenomena like halos or impaired night vision.

Visual acuity at all distances



Measured distances up to 6 m and mean distance corrected near visual acuity.

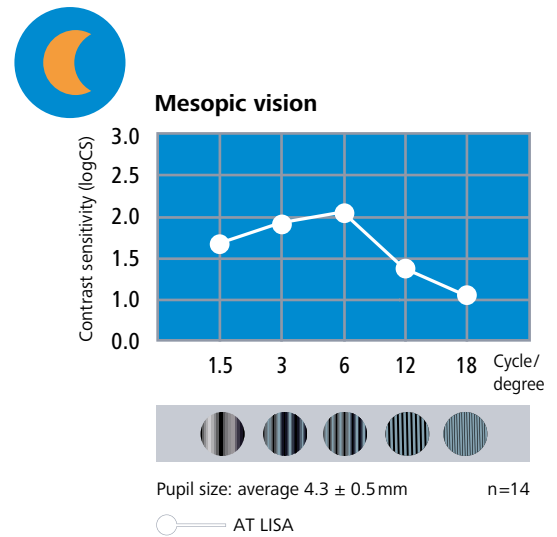
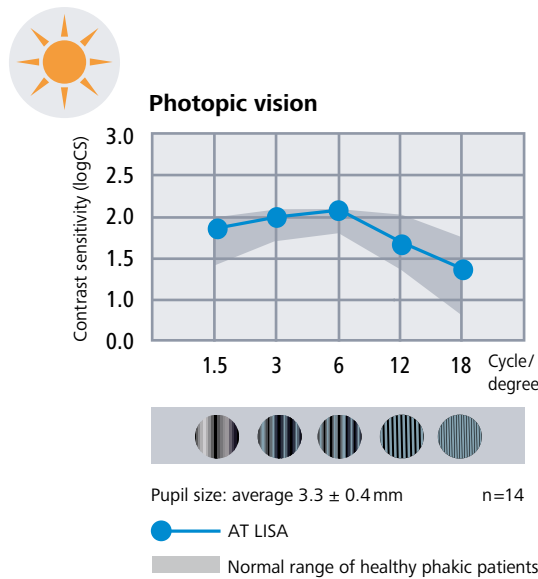


Mean intermediate VA measured in 10 cm steps from 30 to 70 cm (n = 162).

Impressive contrast sensitivity^{2,3,4}

Due to the asymmetrical light distribution over distance (65 %) and near (35 %) focus, the light yield of the AT LISA amounts to 80 %. Compared to multifocal lenses with symmetrical light distribution,

the contrast sensitivity improves to a level which is within the normal range of healthy phakic patients, under photopic and mesopic conditions.

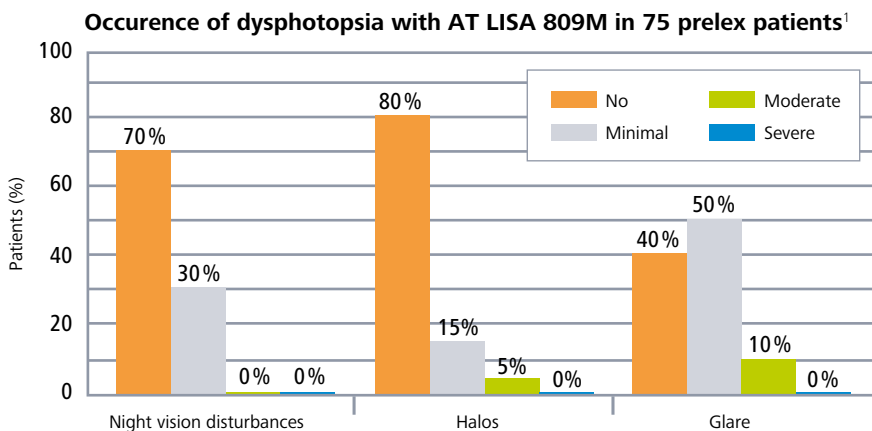


With AT LISA, contrast sensitivity equals the normal range of healthy phakic patients.^{2,3,4}

Very good night vision^{1,7}

When compared to other multifocal IOLs, AT LISA has shown the best results with less than 10 % incidence of moderate night halos.¹

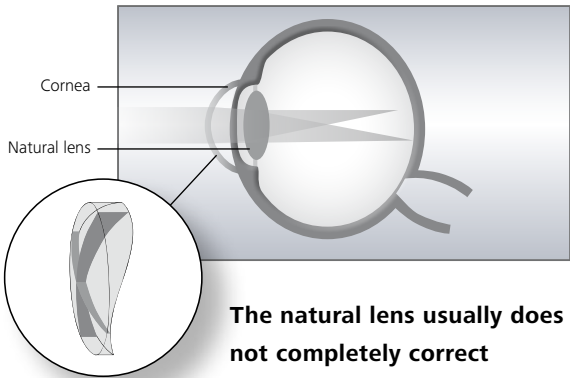
In another study, 90 % of the patients experienced no problems with night vision six months after surgery.⁷



A solution for astigmatic patients – AT LISA toric

AT LISA toric is the combination of the excellent optical performance of the multifocal AT LISA, the reliable astigmatism correction of the AT TORBI® and the successful history in micro-incision surgery of the ZEISS MICS IOLs.

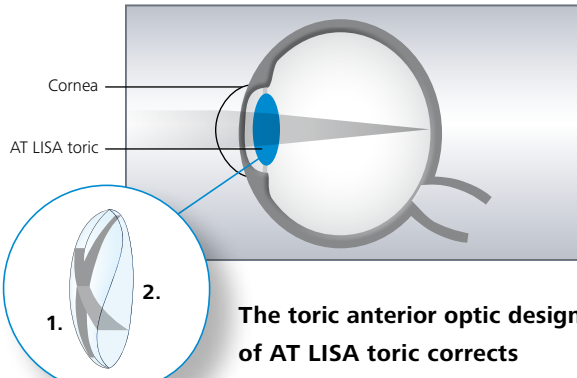
Astigmatism



The natural lens usually does not completely correct corneal astigmatism

- Light rays from a single point converge in more than one focal point.

Astigmatism correction



The toric anterior optic design of AT LISA toric corrects regular corneal astigmatism

- Light rays from a single point converge in one single focal point.

1. Toric anterior optic

Aspheric toric optic for astigmatism correction

- AT LISA toric is available in 0.5 D increments to provide the optimal post-operative refractive results.
- The exceptionally broad and unique cylinder correction range makes AT LISA toric suitable for a wide range of astigmatic cataract patients.

2. Multifocal posterior surface

Aspheric diffractive optic for multifocality

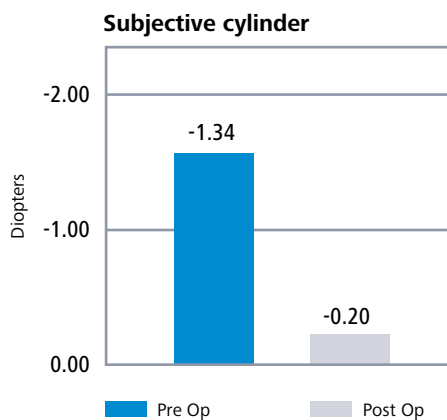
- The AT LISA toric high-tech diffractive-refractive optic design covers the entire optical surface for optimal imaging quality.
- AT LISA toric, with AT LISA technology, provides the premise for excellent post-operative refractive results with a low rate of photic phenomena.



AT LISA toric is part of the ZEISS Toric Solution

The combination of AT LISA toric, Z CALC® and Z ALIGN® provides fast and reliable toric surgery to more astigmatic patients.

Effective astigmatism correction



AT LISA toric has proven efficacy in cylinder correction as shown in a study by Piétrini and Guedj.^{9,10}

Very good rotational stability

The excellent rotational stability and stable centration has been demonstrated in a number of studies; most notably that of Prinz, who confirmed that the mean rotation of the IOL platform was only 2° twelve months after surgery.¹¹



Rotational stability from 1 hour to 12 months after implantation. Courtesy of M. Georgopoulos, MD (Vienna, Austria).¹¹

The AT LISA family of multifocal IOLs are the first generation of high-performance aspheric multifocal IOLs for sub 2 mm Micro Incision Cataract Surgery.

The perfect fit for MICS

AT LISA and AT LISA toric are the first generation of high-performance aspheric multifocal IOLs for 1.8 mm Micro Incision Cataract Surgery.

Requirements for a MICS IOL:

- A thin IOL which can be folded up small enough
- To be injected into a 1.8 mm incision
- While retaining enough power for a wide range of patients
- Offering stability and centration
- And offering an optimized optic design for an excellent visual outcome

The MICS benefits of the AT LISA family of multifocal IOLs:

- Minimizes the surgically induced astigmatism
- Promotes a rapid wound healing and accelerated postoperative regeneration
- Decreases the risk of endothelial cell loss
- Reduces the risk of inflammation

The advanced technology of AT LISA multifocal IOLs can change your patients' lives.



// PRELOADED
MADE BY CARL ZEISS

The BLUEMIXS® 180 injector is the perfect and easy start into Micro Incision Cataract Surgery.

Preloaded ZEISS MICS IOLs with the BLUEMIXS 180 injector maximize the safety, efficiency and reproducibility of the surgical procedure. Avoid the risk of IOL damage, loading errors or cross-contamination with preloaded IOLs.

Providing a smooth workflow

Use the BLUEMIXS 180 injector with preloaded AT LISA and AT LISA toric IOLs for an easy and safe implantation through a 1.8 mm micro incision.





Technical data of the AT LISA portfolio



AT LISA 809M
AT LISA 809MP preloaded

AT LISA toric 909M
AT LISA toric 909MP preloaded

Optic Design	Multifocal, diffractive, +3.75 D near add at IOL plane, aspheric (aberration correcting)	Multifocal, diffractive, toric, +3.75 D near add at IOL plane, aspheric (aberration correcting)
Material	Hydrophilic acrylic (25 %) with hydrophobic surface	Hydrophilic acrylic (25 %) with hydrophobic surface
Optic Diameter	6.0 mm	6.0 mm
Total Diameter	11.0 mm	11.0 mm
Haptic Angulation	0°	0°
Lens Design	Single-piece, MICS	Single-piece, MICS
Incision Size	1.5 mm	1.5 mm
Company Labeled A-Constant*	117.8	118.3
Diopter Range	From 0.0 to +32.0 D 0.0 to +32.0 D, 0.5 D increments	From -10.0 to +32.0 D Sphere -10.0 to +32.0 D, 0.5 D increments Cylinder +1.0 to +12.0 D, 0.5 D increments
ACD	4.85	5.14
Implantation in	Bag	Bag
Injector / Cartridge Set**	AT.Shooter A2-2000 / ACM2 (1.5 mm) <i>or</i> VISCOJECT™ 1.8 Injector Set <i>or</i> Single-use injector A6/ *AT.Smart Cartridge Set (1.8 mm)	For IOLs from -10.0 to +24.0 D sphere with +1.0 to +4.0 D cylinder AT.Shooter A2-2000 / ACM2 (1.5 mm) <i>or</i> VISCOJECT 1.8 Injector Set <i>or</i> Single-use injector A6/ *AT.Smart Cartridge Set (1.8 mm)
Preloaded	BLUEMIXS 180 (1.8 mm) 0.0 to +32.0 D	BLUEMIXS 180 (1.8 mm) +6.0 to +24.0 D sphere with +1.0 to +4.0 D cylinder

* Please refer to our web pages for optimized A-constants.

** Please refer to our web pages for the most up-to-date references.

The moment innovation and passion
lead to the best vision for your patient.
This is the moment we work for.

// OPHTHALMIC SOLUTIONS
MADE BY CARL ZEISS

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AT TORBI 709M
AT.Smart Cartridge Set
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