MEDICONTUR SUPPLEMENT | SEPTEMBER 2023

EUROTIMES

Premium IOL Solutions

Your way out of the labyrinth

ONE-STOP PREMIUM IOL PROVIDER

In today's premium intraocular lens (IOL) market, the abundance of lens options and surgical techniques is overwhelming, evoking a sense of navigating through a labyrinth. A new paradigm has emerged: **the art of selecting the right lens to match each patient's unique visual needs and expectations.**

Medicontur has become a one-step premium IOL provider for leading clinics around the world. This supplement showcases **Medicontur's premium lead technologies** and clinical insights by leading experts in the field of refractive surgery, **showing a way out of this labyrinth.**

MEDICONTUR

Trifocality with dysphotopsias on EDOF level

Fewer Steps - More Vision

Elevated Phase Shift (EPS 2.0) technology is a proprietary optical concept for trifocal performance, designed to maximize spectacle independence whilst minimizing contrast sensitivity loss and dysphotopsia symptoms. Making use of constructive interference at the wavefront arriving to the intermediate region, the lens utilizes only one diffractive order to create two additional diffractive focal points. Through efficient light energy utilization, the lens requires only a minimum number of rings within the central 3mm of the optic, leaving 75% of the lens surface refractive.

Bi-Flex Platform For Unmatched Stability

A lens platform designed for long-term refractive and visual stability in the capsular bag. Key features include the signature double C-loop haptic configuration, large contact angles (ca. 133° at 10 mm diameter) with the capsular bag equator, and a 360° sharp square edge (≤10 microns radius) for preventing posterior capsule opacification (PCO).

Clinical Performance

Clinical trials confirm a high level of patient satisfaction with improved contrast sensitivity and low levels of visual disturbances after implantation.[1,2]

Author	Year	IOL	Light Distortion Index LDI	
			Monocular (%)	Binocular (%)
Brito P. et al.	2015	Tecnis ZCB00 **(Monofocal)**	24	15
		AT Lisa 839M (Trifocal)	47	29
Alió et al.	2018	AcrySof IQ Panoptix (Trifocal)	37	24
Oliveira RF. et al.	2018	FineVision (Trifocal)	33	23
Guarro, M. et al.	2022	Vivity (EDOF)	14	8
Guarro, M. et al.	2022	AT Lara (EDOF)	29	20
Guarro, M. et al.	2022	Symfony (EDOF)	23	17
Guarro, M. et al.	2022	AcrySof IQ SN60WF **(Monofocal)**	13	9
Fernández et al.	**2023**	**Liberty (Trifocal)**	**15**	**13**

FIGURE 1. Comparison of the light distortion index (LDI) of different monofocal and multifocal IOLs

The light distortion index (LDI) of the LIBERTY IOL is similar to that of monofocal lenses which will project a rather uncompromised visual experience compared to other trifocal technologies.[3-6]

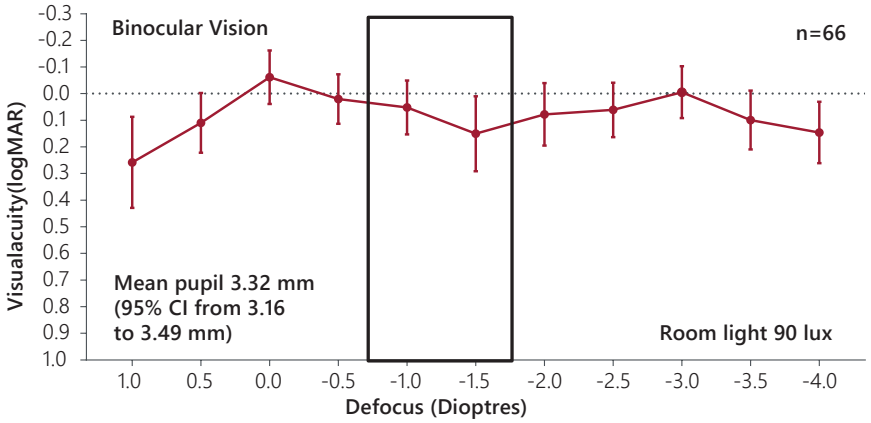


FIGURE 2. Binocular defocus curve of 66 eyes after 3 months follow-up

The lens ensures excellent trifocal vision, making the patients capable of performing all their daily activities without major difficulties.[2,7]

"A trifocal with a very low level of dysphotopic phenomena, basically on EDOF-level."

Joaquín Fernández, Almería, Spain

"The high level of patient satisfaction with minimal postoperative visual symptoms proves that it is possible to reach outstanding vision with a minimum of diffractive arrays."

József Győry, Veszprém, Hungary

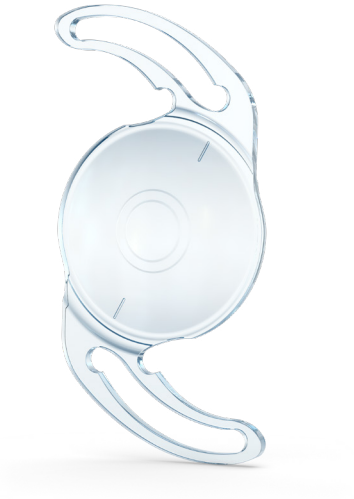
"The IOL position and hence the refractive and visual outcomes are found to be stable, which is the key to long-term patient satisfaction."

Ladislav Nováček, Prague, Czechia

ELON Non-diffractive EDOF Powered by Wavefront Linking

ELONgated Range of Vision

ELON's proprietary non-diffractive technology is based on a series of concentric refractive zones varying in area and curvature, linked by specially designed linking zones. The Wavefront Linking allows for a smooth transition between the refractive zones, thereby creating a continuous light distribution along the optical axis.



Outstanding Far and Intermediate Vision with a Functional Near Vision

With a lower risk of visual disturbances compared to diffractive EDOF solutions, Wavefront Linking provides for higher intermediate light intensity and a wider range of functional vision compared to monofocal IOLs, resulting in true EDOF performance according to the ANSI standard.[3-5,8]

State-of-the-Art Material

Featuring the highest Abbe number (58) of all hydrophobic IOLs, and a comfortably low glass transition temperature of 4°C, the glistening-free ELON is engineered to provide patients with outstanding visual quality, and surgeons with an easy injection and smooth unfolding of the lens.[9-15]

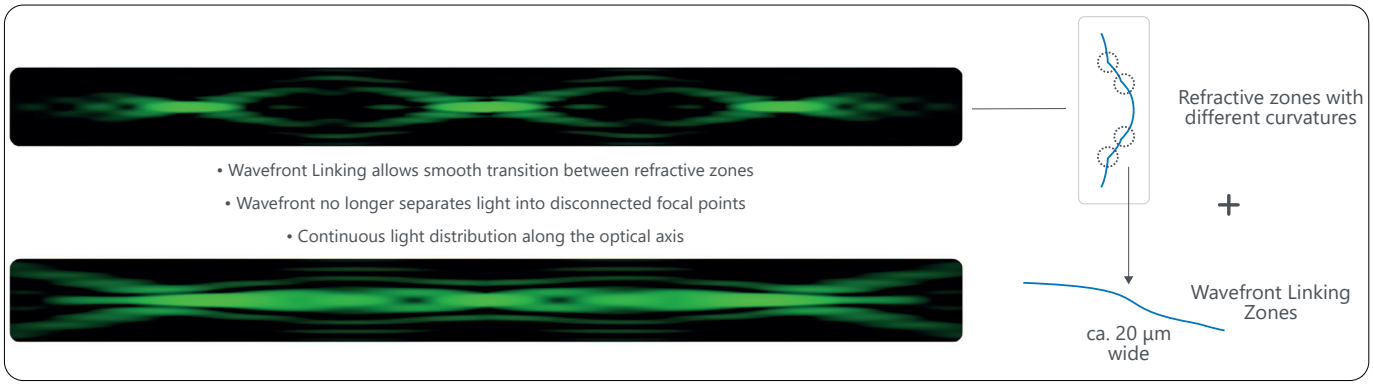


FIGURE 3. The Wavefront Linking EDoF technology creates an elongated focus through far and intermediate distances by utilizing carefully chosen wavefront forming elements.

Clinical Performance

High level of patient satisfaction with good contrast sensitivity and low levels of visual disturbances post-op.[12-15] Defocus curves and visual acuity measurements confirm real EDOF performance along with a surprisingly good near vision.[12-15]

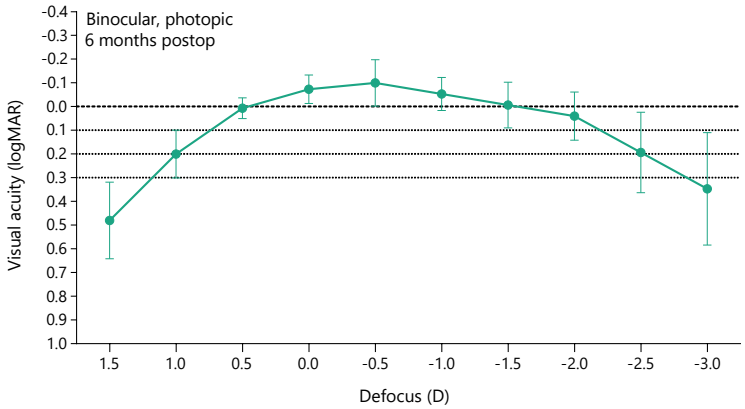


FIGURE 4. Visual acuity defocus curve (binocular, 6 months, post-op, corrected).

> *"While EDOF lenses are commonly subjected to confusion, the non-diffractive ELON by Medicontur provides real EDOF-performance with particularly good distance and intermediate vision, which is highly welcomed by patients with an active lifestyle. Moreover, near vision performance exceeds our expectations."*
>
> *Sathish Srinivasan, Ayr, United Kingdom*

Out-of-the-box approach from South Africa:

"By offering a personalized custom match solution to my patients (ELON into the dominant eye and the LIBERTY into the non-dominant eye) they can enjoy spectacle freedom with first-class visual quality without compromises."
Johann Kruger, Cape Town, South Africa

1stQ AddOn® Sulcus Based Enhancement of Visual Quality

Key Attributes of the 1stQ AddOn® IOLs

- Specifically designed for supplementary sulcus implantation, the 1stQ AddOn® IOLs allow for an upgrade and correction of pseudophakic patients.
- More and more phakic patients choose the option of reversible trifocality with a planned dual-lens procedure.[16]
- Utilizing Medicontur's trifocal EPS technology, optionally with 3.0-2.25-1.5 D power additions (ca. 3.5-2.5-1.75D at the primary IOL plane).
- Featuring a convex-concave, non-torque square optic design, as well as a patented 4-flex haptic configuration with rounded edges, the adaptive lens design is engineered for stability in eyes with a wide variety of axial lengths, whilst maintaining iris function, anterior segment physiology and IOL clearance.[16-19]

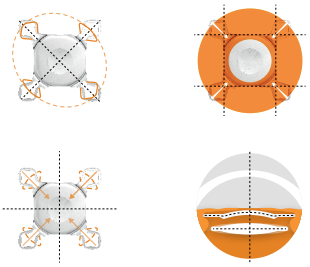


FIGURE 5. Design features of the 1stQ AddOn® IOL

Application & Clinical Performance

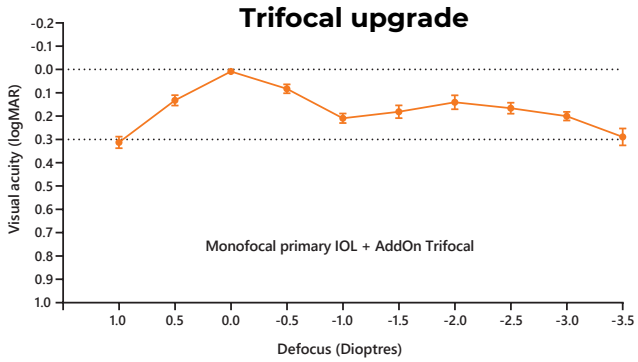


FIGURE 6. Monocular defocus with the 1stQ AddOn®

Excellent vision at all distances.[19]

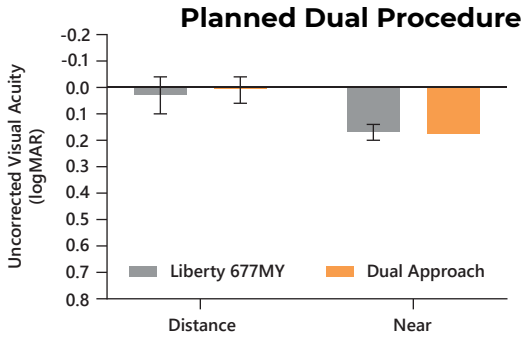


FIGURE 7. Comparison of refractive and visual outcomes in cataract patients implanted with either premium primary IOLs or with the dual implantation approach

Refractive and visual outcomes identical to that achieved with a trifocal capsular bag IOL.[16]

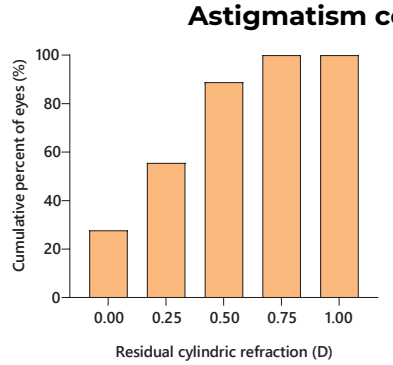


FIGURE 8. Residual astigmatism after implantation of a toric 1stQ AddOn® IOL (cumulative percentage)

The 1stQ AddOn® Toric supplementary IOLs ensure excellent cylindrical correction.[20-21]

"The trifocal 1stQ AddOn® secondary sulcus IOL is an excellent option for patients who wish to upgrade their vision from monofocal to multifocal. My AddOn patients are highly satisfied, mostly spectacle independent and do not complain about dysphotopic phenomena. The AddOn upgrade can be done even decades after the implantation of the primary IOL, and - what is very important to me - is that the procedure is reversible any time."

Alison Chiu, Sydney, Australia

"In case my patient is uncertain of their multifocal IOL suitability, the primary dual procedure technique (in-the-bag monofocal IOL and a sulcus-based multifocal reversible platform) provides an opportunity for the patients to experience multifocal vision."

Brian Harrisberg, Sydney, Australia

"The refractive predictability and stability of the AddOn lenses are excellent."

Kjell Gunnar Gundersen, Haugesund, Norway

SCAN REFERENCES