

DIFFRACx

Micro™

“ADVANCED TECHNOLOGY FOR BETTER VISUAL ACUITY...”

Yesterdays standards for visual outcomes are no longer considered adequate for the active lifestyles of today. Imperial Medical Technologies, for more than 10 years has been quietly and confidently working on new optical systems that will prove to set the standards for others to follow.

Now, after the 2008 introduction of PRESBIOPTICx™ the World's first Progressive Multifocal IOL, IMT is once again leading the way with DIFFRACx Micro™ the company's newest venture into the world of advanced optical systems.

HOW IT WORKS

For decades diffractive technology has been used for optical systems in many medical fields, scientific fields and space exploration.

Now, nano-manufacturing technology has advanced enough to create a diffractive intraocular lens perfect enough to make a real difference. IMT uses tried and true laws of optical physics combined with state of the art bio-medical & nano-technology on high tech equipment to create an optical system that can provide emmetropia to patients as never before.

As light travels through the multiple zones of the lens they are focused on the retina which feeds a myriad of signals to the brain. Neuro-Surgeons, Psychologists and

Ophthalmologists know that the brain is capable of filtering and sorting multiple images and then centering the attention of a precise image which we view.

DIFFRACx uses the brains superior attention to detail to its advantage. The diffractive optical system was designed to supply sharp, crisp images for the brain to sort. Thus allowing for good distant vision, good mid-range vision and good close vision.

While this is not always possible do to unforeseen circumstances it is possible in may case.

MORE LIGHT

IMT has modified the DIFFRACx Micro to include its technology from the ASPHERICx intraocular lens line.

Because of that, DIFFRACx Micro lenses are aspheric and aberration controlled meaning that there are fewer focal zones to eat up valuable light needed at twilight or dusk.

UNIQUE POLYMERS

IMT uses only the World's finest polymers made from the purest monomers. Those monomers, when precisely and scientifically combined bond into a pure polymer of EthylOxyEthylMethAcrylate or (EOEMA).

Imperial Medical has been successfully using EOEMA for its lenses for more than a decade with more than 2,000,000 implants and no adverse reactions and no post surgical complications due to the lens or the plastic.

HOW ITS MADE

The polymers are then carefully and methodically lathe cut on precision air bearing lathes with high end linear slides. Once machined the lenses are carefully tumble polished to remove any free radicals and then each lens is carefully hand inspected for power, dimension and quality before being called and IMT intraocular lens.

CLINICAL DATA

Imperial Medical's quality process combined with superior plastics have proven to provide superior visual acuity.

MUDr. J. Urminský, PhD of the Ophthalmological Clinic, Medical Faculty of the Charles University & University Hospital, Hradec Králové, Czech Republic presented finding from his 135 patient in 2004 that IMT lenses from EOEMA presented significantly lower PCO rates than other lenses tested.¹

In addition, long term clinical studies have shown that when

properly used implantation of diffractive intraocular lenses can provide excellent long term visual acuity without adverse reaction and without visual misadventures for the patients.²

The Archives of Ophthalmology in 1099 published a study called “Bilateral Implantation of Asymmetrical Diffractive Multifocal Intraocular Lenses,” which detailed that eighty percent (80%) of the patients in the study reported no use of spectacles postoperatively.” If good patient selection is used, good results should occur for patients wishing to have binocular diffractive implants with DIFFRACx Micro lenses.

SURGICAL FEATURES

DIFFRACx Micro™ IOLs combine many features that will allow the surgeon to have a quality surgical experience and positive surgical outcome when using DIFFRACx for their patient’s visual needs.

Micro Incision Technology -

Because of its unique features, DIFFRACx Micro intraocular lenses can be implanted through 1.6mm to 1.8mm cartridges.

Experience should dictate the size of incision and the size of cartridge to be used. IMT recommends implanting 00.0 Diopters to 23.0 Diopters through either a 1.6 or 1.8mm cartridge using a silicone cushion on the injector tip. IMT also recommends using a 1.8mm to a 2.2mm cartridge for Diopters 23.0 to 27.0 and for Dioptric powers above 27.0 Diopters it is recommended surgeons us a 2.2mm to 2.8mm cartridge and silicone cushion tip.

Caution should always be used when injecting an intraocular lens into the capsular bag and inexperienced surgeons should seek proper training before attempting micro incision lens injection.

Lens Positioning -

DIFFRACx Micro was designed to be implanted in the capsular bag with the diffractive surface anterior. Surgeons will note a small position indicator on the “Top Right” wing or haptic.

Care should be taken to always implant the lens with the small position indicator to the top right or bottom left or the 1:00 o’clock or 7:00 o’clock positions.

Ultra Violet Protection

As with all lenses and optical system from Imperial Medical Technologies, Inc. DIFFRACx Micro offers full UV protection against harmful UV rays that studies indicate are harmful to the retina.

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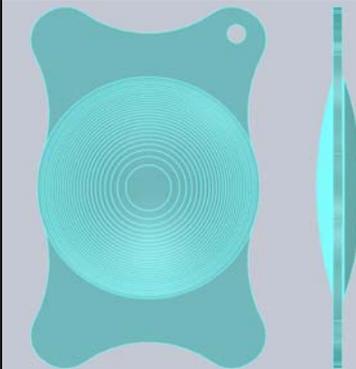
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- (1) *An Evaluation of Opacities in the Posterior Capsule after Implantation of Two Types of Intraocular Lenses; MUDr. Urminsky, J., PhD; 2004.*
- (2) *3M Diffractive Multifocal Intraocular Lens, Eight Year Follow-up; J. Cataract Refract Surg, 2000; 26(3):402-1; Slagsvold, J.E.*

	DIFFRACx Micro™ – Diffractive Multi-Focal Lens	
	Model Number	
	Optic Size	Ø6.0mm
	Optic Style	Bi-Convex
	Overall Length	12.5.0mm
	Haptic Style	Plate
	Haptic Angle	0°-
	“A” Constant	118.4
	AC Depth	5.3mm
	Material	Hydrophilic Acrylic – UV Absorbing