

Clinical Connection



Bringing partners together to deliver exceptional patient care

SUMMER 2026

Welcome to the inaugural edition of EyeCare Partners *Clinical Connection*!



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This newsletter is built around a simple idea: When we share knowledge and perspectives, we deliver better care for our patients.

Clinical Connection is designed to help you care for patients locally, efficiently and with access to the latest capabilities. Each issue will feature timely topics in eye care explored by our optometric residents and complemented by insights from local ophthalmology and optometry colleagues, bringing both emerging thinking and real-world application into focus. You'll also find introductions to our newer doctors and

updates on educational opportunities, new technologies, clinical research and practical ways to stay connected.

We hope this serves as a meaningful way to stay informed, strengthen connections and support our shared goal of delivering the best possible care to the patients and communities we serve.

We welcome your ideas and suggestions for future issues. Thanks for joining us on the *Clinical Connection* journey.

HOT TOPIC

Life in Focus: The Rise of Premium Intraocular Lens (IOL) Technology

Cataract surgery is among the most commonly performed surgical procedures worldwide, with approximately 3.8 million operations conducted in the U.S. each year.^{1,2} Since its origin in 1949, monofocal IOLs served as the undisputed standard of cataract care, reliably restoring distance vision while accepting that patients would remain dependent on spectacles for near and intermediate tasks.³ Though effective, this approach increasingly fell short of evolving patient expectations.

As the global population ages and active lifestyles become the norm across older demographics, demand for spectacle independence at all distances has grown substantially. Patients presenting for cataract surgery today are better informed, have greater visual demands and are more likely to request functional near vision than ever before. Toric, multifocal and extended depth of focus (EDOF) IOL options now offer clinicians powerful tools to meet individualized patient goals. Optimal patient satisfaction begins



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Ocular Disease/
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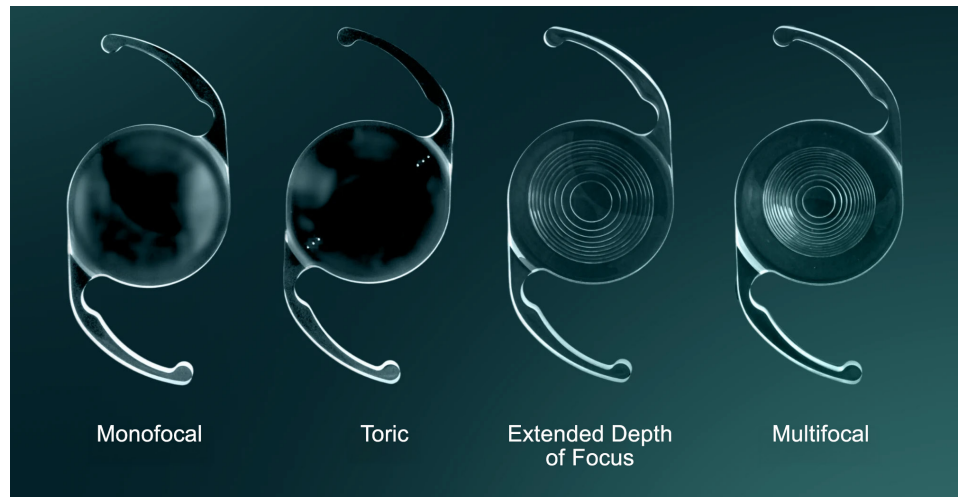
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long before the operating room with evidence-based IOL selection tailored to the patient's lifestyle and visual demands.

Lens Categories

Monofocal IOLs represent the foundational design in cataract surgery, featuring a single fixed focal point. The target of this focal point is most commonly set for distance. Unlike premium lens designs, monofocal IOLs do not address pseudo-presbyopia, meaning patients should be counseled preoperatively that reading glasses or bifocals will be required for near and intermediate tasks following surgery. For those patients with the goal of good near vision uncorrected, particularly myopic patients who habitually remove their spectacles to read, it is possible to set the target for near. In this case, spectacle correction would continue to be necessary for clear distance vision. A monovision strategy that targets the dominant eye for distance and the fellow eye for near can be considered in patients who are accustomed to monovision correction prior to cataract surgery. Extensive education regarding binocular vision and intermediate distance limitations is imperative with this methodology.

Spherical monofocal IOLs are the lens of choice for patients looking for a lens design fully covered by medical insurance. Spherical monofocal IOLs do not correct for astigmatism, meaning patients will likely require spectacle correction for best vision at all distances following surgery. The exception to this rule is patients with minimal corneal astigmatism, who can expect good distance vision uncorrected. Toric multifocal IOLs are a premium lens option for patients with greater than or equal to 0.75D to 1.00D of corneal astigmatism who wish for spectacle



Re:Vision. (n.d.). Premium lenses. <https://www.revision.nz/premium-lenses>

independence at distance. Limbal relaxing incisions (LRIs), small arc-shaped peripheral corneal incisions, can be performed to correct for mild corneal toricity not meeting the threshold for a toric IOL.⁴

Despite their limitations, monofocal lenses remain an excellent choice for many candidates, including those with coexisting ocular pathology such as macular degeneration, diabetic retinopathy or significant dry eye disease that would preclude reliable outcomes with premium IOLs. Monofocal lenses are also well-suited for patients who prioritize the highest possible optical quality at distance, such as those who drive frequently or work in visually demanding environments, and for whom spectacle dependence for near tasks is an acceptable trade-off to pristine distance vision.

Multifocal IOLs represent a significant advancement in IOL technology, designed to provide functional vision across a range of distances by dividing incoming light into two or more discrete focal points. This is achieved through either diffractive or refractive optical designs. Diffractive multifocal lenses use a series of concentric rings etched onto the lens surface to split light between

distance and near focal points, while refractive designs rely on alternating optical zones of differing power. Trifocal IOLs represent the current standard among premium multifocal designs, adding a dedicated intermediate focal point to address computer and arm's length tasks that bifocal multifocals historically underserved.⁵ The primary advantage of multifocal IOLs is the potential for meaningful spectacle independence across all distances, which carries high appeal for active, visually demanding patients. However, clinicians must engage in thorough preoperative counseling regarding the inherent optical trade-offs of multifocal designs, most notably the increased incidence of photic phenomena including halos, glare and starbursts, particularly under mesopic conditions. Contrast sensitivity may also be modestly reduced compared to monofocal IOLs. Ideal candidates are highly motivated patients with healthy macular function, minimal corneal irregularity and realistic expectations. Patients with significant ocular comorbidities, pupillary abnormalities or a history of prior refractive surgery should be approached with caution or steered toward alternative lens platforms.⁶

Overview of Lens Categories

	Insurance Coverage	Spectacle Dependence	Ideal Candidate
Spherical Monofocal IOLs	Typically fully covered	Expect spectacle correction for best vision at all distances	<ul style="list-style-type: none"> Distance target: anyone Near target: myopes preferring to continue to read without spectacles Monovision target: established monovision contact lens wearers
Toric Monofocal IOLs/Limbal Relaxing Incisions	Out-of-pocket cost	Good distance (or near) vision without glasses, will need spectacle correction for all tasks arm's length or closer	
Multifocal IOLs	Out-of-pocket cost	Greatest independence from spectacles, may need small reading prescription for fine print	<ul style="list-style-type: none"> Patients wanting the greatest independence from spectacles Established multifocal contact lens wearers Absence of ocular pathology
Extended Depth of Focus (EDOF) IOLs	Out-of-pocket cost	Moderate independence from spectacles, good distance and intermediate vision, some functional near vision, expect small reading prescription for near work	<ul style="list-style-type: none"> Patients wanting moderate independence from spectacles Concern for difficulty adapting to multifocal design Absence of ocular pathology

Extended depth of focus (EDOF) IOLs represent a compelling middle ground between monofocal and multifocal designs, engineered to elongate the eye's focal range into a continuous corridor of vision rather than creating discrete, separate focal points. This is achieved through a variety of optical strategies depending on the platform, including wavefront manipulation, pinhole optics and non-diffractive refractive technologies.⁶ The primary clinical advantage of EDOF IOLs is a significantly reduced incidence of halos and glare compared to multifocal lenses, making them

particularly attractive for patients who are concerned about nighttime driving or work in low-light environments. Ideal candidates include patients seeking meaningful reduction in spectacle dependence for distance and intermediate tasks, and who are unwilling to accept the dysphotopsia risk associated with multifocal IOLs. EDOF lenses are also well-suited for patients with mild macular changes or modestly reduced contrast sensitivity in whom a multifocal IOL would be contraindicated, as well as those with active lifestyles who prioritize visual quality over complete near

spectacle independence. Patients should nonetheless be counseled that reading glasses will likely still be required for prolonged or demanding near tasks.

Screening and Preparing Patients

Careful patient screening is essential prior to premium IOL implantation. Significant macular pathology including age-related macular degeneration, diabetic macular edema and epiretinal membrane formation represents a primary contraindication to multifocal and EDOF lenses, as compromised retinal function will limit visual

potential and amplify dissatisfaction. Irregular corneal astigmatism, as seen in keratoconus, is another contraindication for premium IOL designs. While not an outright contraindication, ocular surface disruption secondary to dry eye disease will limit visual quality, especially in patients with premium lens options. Optimization of the ocular surface will allow for best vision potential following surgery. Dry eye disease should be aggressively managed prior to surgical planning, as it can destabilize preoperative measurements and reduce postoperative outcomes. A history of refractive surgery can also affect the quality of preoperative measurements and has the potential to limit the accuracy of hitting a specific postoperative target.

Clinical outcomes data for premium IOLs are encouraging, though the importance of appropriate patient selection and preoperative counseling is critical. Spectacle independence confers benefits that extend well beyond the exam lane. Patients consistently report improved quality of life, greater freedom in daily activities and a reduced burden of corrective eyewear that many describe as transformative.

James McHale, M.D., Director of Cataract Surgery at Columbus Ophthalmology Associates, captures this sentiment well, noting: “The revolution of lens implant development has been critical in providing patients with the best possible vision they can obtain given their visual potential through cataract surgery. Astigmatism correction is a given today and can be achieved through toric IOL implantation or limbal relaxing incisions for lower amounts of astigmatism. I have been infinitely impressed with patients’ acuities and focusing capabilities regarding modern day, multifocal lens implants. We try to provide patients with a complete and improved range of focus, which reduces or completely absolves a patient’s dependence on glasses.”

U.S. FDA clinical trial data echoes this optimism, demonstrating that 99% of patients who received multifocal IOLs would choose the same lens again — although those same data reveal that 12.6% of multifocal IOL patients reported severe difficulty with halos, compared to just 0.9% of monofocal IOL patients.⁵ This contrast is not a contradiction; rather, it reflects the reality that when patients are appropriately selected and

thoroughly counseled, even lenses with inherent optical trade-offs can deliver outstanding satisfaction. Ultimately, these figures reinforce a central theme in premium IOL practice: Exceptional outcomes are achievable, but remain contingent upon matching the right lens to the right patient and anchoring expectations in clinical reality.

Setting Patients up for Success

The expanding landscape of IOL technology has transformed cataract surgery into an opportunity to meaningfully optimize a patient’s lifelong visual function. As available IOL design options continue to grow, so too does the responsibility of every clinician involved. By initiating identifying conditions that may influence candidacy, managing ocular surface disease preoperatively and calibrating patient expectations well in advance of the surgical consultation, the referring clinician can dramatically streamline the process and set both the patient and surgeon up for success. In an era of rapidly advancing IOL technology, the clinicians who invest in staying current with the evidence will be best positioned to guide their patients toward the visual outcomes they deserve.

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Life in Focus: The Rise of Premium Intraocular Lens (IOL) Technology

The Surgical Perspective

Which advanced technology intraocular lens (ATIOL) do you most commonly use and what drives your selection?

James McHale, M.D.: I prefer using a trifocal, multifocal IOL. This type of lens gives patients the broadest range of focus and greatest chances of becoming spectacle independent.

How do you match a patient's lifestyle and expectations to a specific IOL?

James McHale, M.D.: Patient selection revolves around the desire for freedom from glasses. These

patients view this opportunity as worthy, valuable, modern and high-tech and want to invest in their future vision. Others either don't mind wearing glasses, or prefer to wear them after surgery. Matching patient desires, lifestyle and post-op focusing capabilities is critical to provide optimal visual outcomes, and meet and exceed patient expectations.

What are the most common reasons a patient is not a good candidate for ATIOLs?

James McHale, M.D.: I don't tend to use multifocal or extended depth



James McHale, M.D.

of focus (EDOF) lens implants in patients with moderate macular degeneration, significant epiretinal membrane or a history of vascular event in the retina or optic nerve. However, I don't ignore astigmatism and will recommend toric IOL to these patients in a monofocal platform.



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