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Public Interest in Intraocular Lens Technology From 2004 to 2025: A Google Trends Analysis

Purpose: Given the variety of intraocular lens (IOL) technologies available to patients, online search patterns may provide insight into emerging trends in public interest. The purpose of this study was to characterize U.S. search interest in available IOL technologies from 2004–2025 and compare long-term and recent trends among different types of IOLs.

Methods: We conducted a retrospective longitudinal Google Trends analysis of U.S. searches from January 2004–December 2025. An initial 216 IOL-related terms underwent Google Trends Anchor Bank calibration, data-sufficiency screening, and semantic validation. One representative term was selected for each of 6 technology classes. Monthly calibrated values were aggregated annually. Long-term trends were assessed using the Hamed–Rao modified Mann–Kendall test and Sen slope with Holm-adjusted P values. A secondary descriptive analysis of 2021–2025 characterized recent trends.

Results: Toric and multifocal lenses demonstrated the most frequent overall U.S. internet searches from 2004–2025. Long-term interest increased significantly for monofocal (adjusted $P=0.002$), multifocal (0.015), trifocal (<0.001), EDOF (0.025), and Light Adjustable Lens (LAL; 0.025), while toric showed no significant long-term trend ($P=0.111$). From 2021–2025, LAL had the steepest increase (Sen slope 0.019/year), with annual calibrated interest rising from 0.010 to 0.095 and approaching multifocal interest (0.105) by 2025.

Conclusion: Over two decades, U.S. search interest was highest for toric and multifocal lenses. Light Adjustable Lens interest rose rapidly after its introduction, showing the steepest recent growth and approaching multifocal interest by 2025. These findings may help cataract surgeons tailor counseling to evolving patient interest.

