Natural Lens Curvature Measurements As A Variable In Calculating Intraocular Lens Power

Tech ID: 33888 / UC Case 2021-945-0

BRIEF DESCRIPTION

A novel method for predicting the effective lens position (ELP) in cataract surgery through pre-operative measurements of natural lens curvatures.

FULL DESCRIPTION

This technology introduces a groundbreaking approach to predict the effective lens position (ELP) for cataract surgery patients with improved accuracy by using pre-operative measurements of the natural lens's anterior and posterior curvatures. This method aims to refine the selection process for the intraocular lens (IOL) power, addressing the limitations of existing biometric calculations and enhancing postoperative outcomes.

SUGGESTED USES

- Pre-operative assessment tools for ophthalmologists performing cataract surgery.
- Customized intraocular lens manufacturing and fitting.
- Advanced ocular biometry devices incorporating novel measurement capabilities.
- Software algorithms for enhanced prediction of intraocular lens (IOL) placement outcomes.

ADVANTAGES

- Increases the accuracy of predicting the ELP compared to existing methods.
- Improves the precision of IOL power calculations, leading to better visual outcomes for patients.
- Reduces the likelihood of patients needing corrective glasses post-surgery.
- Utilizes novel pre-operative measurements, offering a unique approach over traditional methods.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20220401211	12/22/2022	2021-945

RELATED MATERIALS

CONTACT

Richard Y. Tun
tunr@uci.edu
tel: 949-824-3586.



OTHER INFORMATION

CATEGORIZED AS

- **Biotechnology**
  - Health
- **Imaging**
  - Medical
- **Medical**
  - Devices
  - Disease: Ophthalmology and Optometry
  - Imaging
- **Sensors & Instrumentation**
  - Medical

RELATED CASES

2021-945-0

» Tran. T. M., et al. Wade, M., Garg, S. (2023). Prevalence of subclinical keratoconus and impact on adults undergoing routine, uncomplicated age-related cataract extraction. Front. Ophthalmol. 3.

UCI Beall Applied Innovation

5270 California Avenue / Irvine,CA
92697-7700 / Tel: 949.824.2683

© 2024, The Regents of the University of California
Terms of use
Privacy Notice