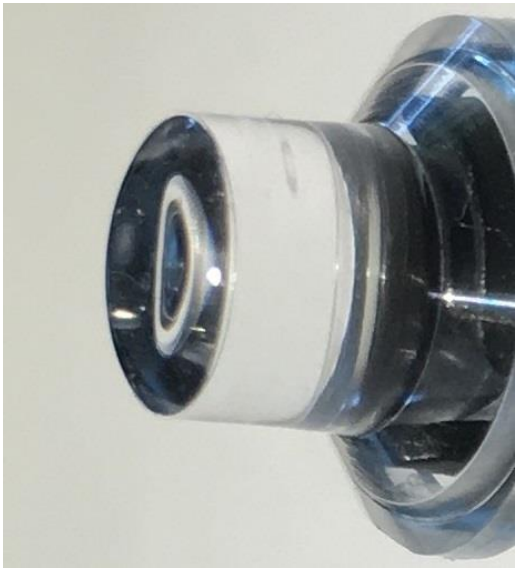
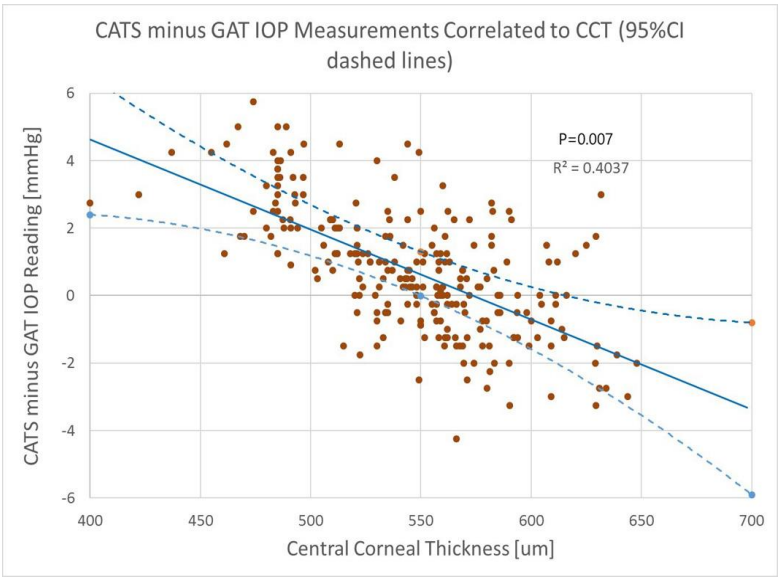
CATS Tonometer Prism™
Whitepaper

The CATS (Correcting Applanation Tonometry Surface) Tonometer Prism™ is FDA cleared for IOP measurement in existing Goldmann-type applanation tonometers (Figure 1). Based on the seven peer-reviewed studies listed below, CATS Tonometer Prism's™ 94% increased accuracy for a majority of the population is attributed to the sinusoidal curved modification of applanating surface.[1] The CATS Tonometer Prism™ significantly decreases individual patient IOP error due to corneal biomechanical and tear-film properties. Improved IOP accuracy with the CATS Tonometer Prism™ has been demonstrated in direct clinical GAT prism comparison and by surgically placed intracameral transducer pressure comparison.[2–7] Figure 2 illustrates the CATS Tonometer Prism™ correction of the GAT IOP measurement which follows very closely to the Dresdner CCT correction. [3]





All Goldmann type tonometers may utilize CATS Tonometer Prism™ without recalibration. A clinician measures IOP using the same protocol and techniques as those currently employed in GAT measurement. The CATS Tonometer Prism™ achieves the reduction in corneal biomechanical errors by partially matching the curvature of the tonometer surface to curvature of the cornea minimizing the intracorneal stress during applanation.[2–7] This process minimizes the contribution of total force on the prism face due to corneal deformation, measuring predominantly the IOP force.[1] The annular curvature away from the cornea simultaneously minimizes the tear-film error.[1,7] We believe the CATS Tonometer Prism™ will be the new standard of care for all eye care clinicians who want confidence in the IOP metrics used to assess and protect their patients' sight.

1. https://tvst.arvojournals.org/article.aspx?articleid=2552691&resultClick=1
2. https://www.ajo.com/article/S0002-9394(18)30513-0/fulltext
3. https://bjo.bmj.com/content/early/2019/02/21/bjophthalmol-2018-313470
4. https://bmcophthalmol.biomedcentral.com/articles/10.1186/s12886-017-0668-z
5. https://bmcophthalmol.biomedcentral.com/articles/10.1186/s12886-017-0608-y
6. https://www.dovepress.com/goldmann-tonometer-error-correcting-prism-clinical-evaluation-peer-reviewed-article-OPTH
7. https://www.dovepress.com/goldmann-tonometry-tear-film-error-and-partial-correction-with-a-shape-peer-reviewed-article-OPTH