



The answers to questions below are based on seven peer-reviewed journal articles. Please refer to www.catsiop.com/events for a listing of the articles.

Q. What advancement does the CATS® Tonometer Prism (CATS®) bring to intraocular pressure (IOP) measurement?

A. The CATS® prism is designed to significantly reduce IOP measurement errors for at-risk patients by factoring for central corneal thickness (CCT), rigidity, tear film and curvature data into its measurement. The CATS® prism features an optimized concave-convex prism surface that captures the critical data needed to provide an accurate IOP measurement.

Q. When the clinician uses the CATS® prism, does s/he still need to perform CCT error correction?

A. Usually no. CATS® is designed to provide “true” IOP to within +/-2mmHg in 97% of the population. However, in cases of extremely abnormal corneas or those with corneal pathological conditions, the clinician may consider performing CCT to gather additional data and insights into the condition.

Q. What design elements enable the CATS® prism to produce a differing IOP measurement from the Goldmann Tonometer Prism (GAT)?

A. The CATS® applanation surface design “cups” the cornea while the GAT’s surface “flattens” it. The CATS® surface significantly negates the force due to factors associated with central corneal thickness (CCT) and corneal rigidity. Therefore, the new surface measures almost exclusively the force due to IOP as opposed to the corneal force with the GAT.

Q. How does the clinician have confidence that the CATS® prism produces an accurate IOP when the IOP is different from the GAT IOP measurement?

A. The clinician can reference seven peer reviewed journal articles to review the significant scientific clinical evaluation of the CATS® technology. The CATS® IOP measurement will approximate the expected CCT corrected GAT IOP. However, the CATS® is designed to simultaneously correct for 3 other corneal related errors in addition to CCT, such as error due to LASIK surgery or a thin cornea, so there will be some variation in its correction. Also, the CATS® prism was compared to GAT in studies comparing both prisms to true intracameral pressure on live patient eyes.

Q. Is there any reinterpretation of the IOP measured with CATS® compared to historical patient IOP data measured with the GAT prism?

A. No. CATS® and GAT IOP measurements are comparable for nominal corneas. The difference between CATS® and GAT IOP relates to the inherent GAT corneal biomechanical and tear film errors. Most clinicians are already familiar with corrections for CCT related GAT errors, so s/he will not be surprised by the different measurement using the CATS® vs. the GAT.

Q. Why do the mires appear distorted until the clinician centers the prism's position?

A. CATS® was designed to indicate prism alignment and centration with the corneal surface, whereas the GAT prism is subjectively centered. Only when the prism is centered on the cornea is a measurement possible allowing the mires to intersect. At that point, the visualization appears like the normal hemicircular mires familiar to clinicians. With an objective centration indicator, the CATS® prism is designed to improve accuracy and repeatability.

Q. Does the clinician need to be concerned about the mire thickness affecting IOP measurement?

A. No. The CATS® surface curvature is designed to minimize tear film error. The clinician will visualize very consistent mire thickness using the CATS® prism for every measurement regardless of the amount of tears in the patient's eye.

Q. Why do the CATS® Prism mires appear brighter and easier to visualize?

A. The clear flange at the base of the CATS® prism tip works as a light pipe concentrating the cobalt blue filtered light to the prism's applanation surface illuminating the mires.

Q. Will clinicians need to buy additional equipment and/or change their current IOP measurement protocol if they use the CATS® Prism?

A. No. The CATS® prism integrates seamlessly with existing applanation tonometers and is designed for easier and more sterile prism installation. Additionally, there is no need to recalibrate an existing tonometer, alter measurement techniques or the interpretation of results.

Q. What is the significance of curved external appearance of the CATS® prism's body?

A. The curved finger/thumb hold of the CATS® disposable prism body allows for true single hand, no touch sterile operation using the disposable version of CATS®. The CATS® prism body engages the sterile prism tip in the tray with a tactile "click." After IOP measurement, the tip is then thumb released into the trash, and the process is repeated.

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