Dynamic contour tonometer

The PASCAL DCT is the first totally new concept in tonometry in over 100 years. It is probably the most accurate of all the tonometers and is relatively independent of corneal biomechanical properties unlike its predecessors.

R. Stamper, Optom Vis Sci. 2011 Jan
PASCAL DCT: DYNAMIC CONTOUR TONOMETER
IOP and OPA measurement without corneal influence

4th World Glaucoma Consensus on IOP 2007:
“Correction nomograms that adjust GAT IOP based solely on CCT are neither valid nor useful in individual patients. The corneal modulus of elasticity likely has a greater effect on GAT IOP measurement error than CCT.”
R. Weinreb, J. Brandt, T. Garway-Heath, F. Medeiros 2006

Excerpts from original studies:

“According to our data, the DCT measurements came close to the true IOP.”  A. Böhm et al. IOVS 2009

“The PASCAL DCT shows excellent measurement precision, displaying the best repeatability and reproducibility of the 3 tonometers.” [GAT, ORA, DCT]

“These findings suggest that DCT-IOP is correlated with glaucomatous damage, and moreover, DCT-IOP is more closely related to extent of glaucoma damage than is GAT-IOP.”
M. Sullivan Mee et al. J Glaucoma 2007

(1) DCT-Sensor tip: no applanation but relaxation
(2) Constant apposition force of only 1g
(3) LCD display shows: IOP (True IOP), OPA (ocular pulse amplitude) and Q (measurement quality index)
(4) Easy handling with just one knob
PASCAL’S CLINICAL BENEFITS

True IOP – No doubt
Independent from corneal properties like CCT and corneal rigidity.

Ocular pulse amplitude OPA
PASCAL measures both static pressure (IOP) and pressure fluctuation (OPA).

Elimination of late or missed diagnosis
Due to false negatives from Goldmann tonometry.

Highest repeatability
Allows a refined IOP progression analysis.

Additional advantages
- PASCAL can optionally be connected to a wireless printer or PC and is EMR compatible.
- Due to the automatic self-calibration no additional calibration steps are needed.
- No fluorescein has to be used. The sterile sensor caps enable a fast and convenient workflow and avoid any risk for cross infection.
- “Relaxation” of the cornea by contact with the concave tonometer tip allows to measure the IOP directly and without corneal influence.
Manufacturer:
SMT Swiss Microtechnology AG
a Ziemer Group Company

Ziemer Group is a privately owned, Switzerland-based med-tech company, whose activities are focused exclusively on ophthalmology.

At Ziemer we strive to empower ophthalmologists and optometrists to deliver better vision care to their patients by creating superior surgical and diagnostic tools.

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Actual product characteristics, specifications, and prices are subject to change.
Federal (U.S.) law restricts this device to sale by or on the order of a physician.
Article No. 311.941.001

Pascal is CE marked, FDA 510(k) cleared and fulfills the international standard for tonometers ISO 8612.

For technical specifications please visit our homepage at www.ziemergroup.com