

# Ocular Response Analyzer

## Peer-Reviewed Journals

Updated April 2009

Date	Journal	Title	Author
March 2005	JCRS	Determining in vivo biomechanical properties of the cornea with the ORA	D.Luce
March 2006	Clinical and Experimental Ophthalmology	The diurnal variation of ocular hysteresis in normal subjects:relevance in clinical context	Mohammad Laiquzzaman M.B.B.S, PhD, Rajan Bhojwani FRCOphth, Ian Cunliffe FRCS (Glas), FRCOphth, Sunil Shah FRCS (Ed) FRCOphth
May 2006	American Journal of Ophthalmology	Central corneal thickness and corneal hysteresis are associated with glaucoma damage	Congdon NG, Broman AT, Bandeen-Roche K, Grover, D, Quigley HA.
October 2006	Journal of Glaucoma	Evaluation of the Influence of Corneal Biomechanical Properties on Intraocular Pressure Measurements Using the Ocular Response Analyzer	Felipe A. Medeiros, MD and Robert N. Weinreb, MD
October 2006	IOVS	Effect of 24-Hour Corneal Biomechanical Changes on Intraocular Pressure Measurement	Teruyo Kida, John H. K. Liu, and Robert N. Weinreb
December 2006	Contact Lens & Anterior Eye	The use of the Reichert ocular response analyser to establish the relationship between ocular hysteresis, corneal resistance factor and central corneal thickness in normal eyes	Sunil Shah, Mohammed Laiquzzaman a, Ian Cunliffe, Sanjay Mantry
December 2006	American Journal of Ophthalmology	Corneal Hysteresis and Intraocular Pressure Measurement in Children Using the Reichert Ocular Response Analyzer	Caitriona Kirwan, MRCOphth, Michael O'Keefe, FRCS, and Bernadette Lanigan, RN
December 2006	IOVS	Corneal Thickness- and Age-Related Biomechanical Properties of the Cornea Measured with the Ocular Response Analyzer	Aachal Kotecha, Ahmed Elsheikh, Cynthia J. Roberts, Haogang Zhu, and David F. Garway-Heath
January 2007	American Journal of Ophthalmology	Changes in Corneal Biomechanics and Intraocular Pressure Following LASIK Using Static, Dynamic, and Noncontact Tonometry	Jay S. Pepose, MD, Ph.D., Susan K. Feigenbaum, Ph.D., Mujtaba A. Qazi, MD, Jeffrey Sanderson, MD, and Cynthia J. Roberts, Ph.D
January 2007	Journal of Refractive Surgery	Corneal Hysteresis,Resistance Factor, Topography, and Pachymetry After Corneal Lamellar Flap	Damien GatineI, MD, PhD; Slim Chaabouni, MD; Pierre-Alexandre Adam, MD; Jacques Munck, OD; Michel Puech, MD; Thanh Hoang-Xuan, MD
February 2007	American Journal of Ophthalmology	Central Corneal Thickness and Corneal Hysteresis During Corneal Swelling Induced by Contact Lens Wear With Eye Closure	F . Lu , S . Xu , J . Qu , M . Shen , X . Wang , H . Fang, J . Wang
June 2007	Ophthalmologe	The influence of corneal hysteresis and corneal resistance factor on the measurement of intraocular pressure [in German]	Hager, A., Schroeder, B., Sadeghi, M., Großherr, M., Wiegand, W.
July 2007	IOVS	Assessment of the biomechanical properties of the cornea with the ocular response analyzer in normal and keratoconic eyes	Shah, S., Laiquzzaman, M., R., Mantry, S., Cunliffe, I.
August 2007	JCRS	Corneal biomechanical properties in normal, post-laser in situ keratomileusis, and keratoconic eyes	Dolores Ortiz, PhD, David Pinero, OD, Mohamed H. Shabayek, MD, Francisco Arnalich-Montiel, MD, Jorge L. Alio, MD, PhD
Fall 2007	Annals of Ophthalmology	Corneal hysteresis following descemetorhexis with endokeratoplast (DXEK): Early results	John T, Taylor DA, Shimmyo M, Siskowski BE
September 2007	American Journal of Ophthalmology	Changes in Corneal Hysteresis After Clear Corneal Cataract Surgery	Annette Hager, Kristina Loge, Marc-Oliver Füllhas, Bernd Schroeder, Martin Großherr, and Wolfgang Wiegand
September 2007	Optometry and Vision Science	Comparison of IOP measurements between ORA and GAT in normal Chinese	Lam, A, Chen. D.a Show. Chiu, R. Chui, W.-S.
October 2007	Journal of Glaucoma	Influence of corneal structure, corneal responsiveness, and other ocular parameters on tonometric measurement of intraocular pressure	Broman, A.T., Congdon, N.G., Bandeen-Roche, K., Quigley, H.A.
December 2007	Journal Francais d'Ophthalmologie	Ocular Response Analyzer: Feasibility study and correlation with normal eyes [in French]	Montard, R., Kopito, R.b ., Touzeau, O., Allouch, C., Letaief, I., Borderie, V., Laroche, L.

Date	Journal	Title	Author
March 2008	American Journal of Ophthalmology	Corneal Hysteresis and Axial Length Among Chinese Secondary School Children: The Xichang Pediatric Refractive Error Study (X-PRES) Report No. 4	Song Y, Congdon N, Li L, Zhou Z, Choi K, Lam DS, Pang CP, Xie Z, Liu X, Sharma A, Chen W, Zhang M.
March 2008	IOVS	Reproducibility and clinical relevance of the ocular response analyzer in nonoperated eyes: corneal biomechanical and tonometric implications	Moreno-Montañés J, Maldonado MJ, García N, Mendiluce L, García-Gómez PJ, Seguí-Gómez M.
March 2008	Acta Ophthalmologica	Corneal hysteresis using the Reichert ocular response analyser: findings pre- and post-LASIK and LASEK	Kirwan C, O'Keefe M.
March 2008	Journal of Refractive Surgery	Biomechanical characteristics of the ectatic cornea	Kerautret J, Colin J, Touboul D, Roberts C.
March 2008	Klinische Monatsblätter für Augenheilkunde	The effect of cataract and vitreoretinal surgery on central corneal thickness and corneal hysteresis [in German]	Hager, A., Loge, K., Kutschan, A., Wiegand, W.
March 2008	IOVS	Corneal Biomechanics and Optic Nerve Head Compliance: Corneal Hysteresis But Not Corneal Thickness Correlates with Optic Nerve Surface Deformation in Glaucoma Patients	Anthony P. Wells, FRANZCO, David F Garway-Heath, Ali Poostchi, Tracey Wong, Kenneth C. Y. Chan, Nisha Sachdev
April 2008	Journal of Refractive Surgery	Measurement of Intraocular Pressure in LASIK and LASEK Patients Using the Reichert Ocular Response Analyzer and Goldmann Applanation Tonometry	Kirwan,C., O'Keefe,M.
April 2008	Ophthalmology	The Heritability of Corneal Hysteresis and Ocular Pulse Amplitude A Twin Study	Carbonaro F, Andrew T, Mackey DA, Spector TD, Hammond CJ.
April 2008	Der Ophthalmologe	Measurement of viscoelastic corneal parameters (corneal hysteresis) in patients with primary open angle glaucoma [in German]	Schroeder B, Hager A, Kutschan A, Wiegand W.
April 2008	Ophthalmologe	Methods of measuring intraocular pressure independently of central corneal thickness [in German]	A. Hager, W. Wiegand
April 2008	JCRS	Correlations between corneal hysteresis, intraocular pressure, and corneal central pachymetry	Touboul D, Roberts C, Kérautret J, Garra C, Maurice-Tison S, Saubusse E, Colin J.
Online April 2008	Journal of Refractive Surgery	Corneal Biomechanical Metrics in Eyes With Refraction of -19.00 to +9.00D in Healthy Brazilian Patients	Bruno M. Fontes, MD; Renato Ambrosio, Jr, MD, PhD; Ruiz S. Alonso, MD; Daniela Jardim, MD; Guillermo C. Velarde, DSc; Walton Nose, MD.
May 2008	Klin Monatsbl Augenheilkd	Repeatability of intraocular pressure and corneal biomechanical properties measurements by the ocular response analyser	Kynigopoulos M, Schlote T, Kotecha A, Tzamalís A, Pajic B, Haefliger I.
May 2008	Graefe's Archive for Clinical and Experimental Ophthalmology	Lower corneal hysteresis in glaucoma patients with acquired pit of the optic nerve (APON)	Bochmann F, Ang GS, Azuara-Blanco A
May 2008	Cornea	Pilot Study on the Influence of Corneal Biomechanical Properties Over the Short Term in Response to Corneal Refractive Therapy for Myopia	González-Méjome JM, Villa-Collar C, Queirós A, Jorge J, Parafita MA.
May 2008	IOVS	Cornea Biomechanical Characteristics and their Correlates with Refractive Error in Singapore Children	Lim, L., Gazzard, G., Chan, Y., Fong, A., Sim, E., Tan, D., Tong, L., Saw, S.
June 2008	Optometry & Vision Science	Ocular Response Analyzer in Subjects with and without Glaucoma	Sullivan-Mee, Michael OD, Billingsley, Savon C. OD, Patel, Amita D. OD, Halverson, Kathy D. OD, Alldredge, Brooks R. OD, Qualls, Clifford PhD.
June 2008	Graefes Arch Clin Exp Ophthalmol.	Factors affecting corneal hysteresis in normal eyes.	Kamiya K, Hagishima M, Fujimura F, Shimizu K.
June 2008	IOVS	A Viscoelastic Biomechanical Model of the Cornea Describing the Effect of Viscosity and Elasticity on Hysteresis	Glass DH, Roberts CJ, Litsky AS, Weber PA.
July 2008	American Journal of Ophthalmology	Effects of Aging on Corneal Biomechanical Properties and Their Impact on 24-hr Measurement of Intraocular Pressure	Teruyo Kida, John H. K. Liu, and Robert N. Weinreb

Date	Journal	Title	Author
July 2008	Ophthalmologica	Corneal Hysteresis and Corneal Resistance Factor in Keratoectasia: Findings Using the Reichert Ocular Response Analyzer	Kirwan, C., O'Malley, D., O'keefe, M.
Online August 2008	British Journal of Ophthalmology	Accuracy of Goldmann, Ocular Response Analyser, Pascal and TonoPen XL Tonometry in Keratoconic and Normal Eyes	Susan P Mollan, James S. Woffsohn, Maged Nessim, Mohammed Laiquzzaman, Subramaniam Sivakumar, Stephanie Hartley and Sunil Shah.
September 2008	IOVS	Corneal biomechanical properties and retinal vascular caliber in children	Laurence Lim, Ning Cheung, Gus Gazzard, Yiong-Huak Chan, Tien-Yin Wong
September 2008	Journal of Glaucoma	Correlations between corneal biomechanical properties measured with the ocular response analyzer and Icare rebound tonometry	Jorge JM, González-Méijome JM, Queirós A, Fernandes P, Parafita MA.
September 2008	Vision Research	Biomechanical properties of the cornea in high myopia	Meixiao Shen, Fan Fan, Anquan Xue, Jianhua Wang, Xiangtian Zhou, Fan Lu
October 2008	Acta Ophthalmologica	Association between corneal hysteresis and central corneal thickness in glaucomatous and non-glaucomatous eyes	George Mangouritsas, George Morphis, Spyridon Mourtzoukos and Elias Feretis
October 2008	Clinical and Experimental Ophthalmology	The risks of being hysterical	Aachal Kotecha
November 2008	JCRS	Corneal biomechanical measurements before and after laser in situ keratomileusis	Michael C. Chen MD, Nancy Lee, Nirit Bourla MD and D. Rex Hamilton MD, MS
November 2008	Journal of Refractive Surgery	Corneal Biomechanical Metrics in Eyes With Refraction of -19.00 to +9.00D in Healthy Brazilian Patients	Bruno M. Fontes, MD; Renato Ambrosio, Jr, MD, PhD; Ruiz S. Alonso, MD; Daniela Jardim, MD; Guillermo C. Velarde, DSc; Walton Nose, MD.
December 2008	JCRS	Corneal Biomechanical properties and intraocular pressure changes after phacoemulsification and intraocular lens implantation	Raciha Beril Kucumen, MD, Nursal Melda Yenerel, MD, Ebru Gorgun, MD, Destan Nil Kulacoglu, MD, Banu Oncel, MD, Maryo Cenk Kohen, MD, Murat Levent Alimgil, MD
December 2008	Ophthalmology	Intraocular Pressure and Corneal Biomechanical Properties in Patients with Myotonic Dystrophy	Nicola Rosa, MD, Michele Lanza, MD, Maria Borrelli, MD, Alberto Palladino, MD, M. Grazia Di Gregorio, MD, Luisa Politano, MD
December 2008	Survey Of Ophthalmology	Tonometry Through the Ages	Christoph Kniestedt, MD, Omar Punjabi, MD, Shan Lin, MD, and Robert L. Stamper, MD
December 2008	JCRS	Differences in the corneal biomechanical effects of surface ablation compared with laser in situ keratomileusis using a microkeratome or femtosecond laser	Rex Hamilton MD, MS, R. Duncan Johnson, MD, Nancy Lee, Nirit Bourla, MD
December 2008	Optometry and Vision Science	Diurnal Variation of Ocular Hysteresis, Corneal Thickness, and Intraocular Pressure	Meixiao Shen, Jianhua Wang, Suzhong Xu, Xiaoxing Wang, Haizhen Fang, Fan Lu
March 2009	IOVS	Biomechanical properties of the cornea in Fuchs corneal dystrophy	Maria A. del Buey, Jose A. Cristobal, Francisco J. Ascaso, Laura Lavilla, Elena Lanchares
March 2009	American Journal of Ophthalmology	Recovery of Corneal Hysteresis After Reduction of Intraocular Pressure in Chronic Primary Angle-Closure Glaucoma	Lei Sun, Meixiao Shen, Jianhua Wang, Aiwa Fang, Aiqin Xu, Haizhen Fang, Fang Lu
April 2009	Contact Lens & Anterior Eye	The use of the Ocular Response Analyser to determine corneal hysteresis in eyes before and after excimer laser refractive surgery	Sunil Shah, Mohammad Laiquzzaman, Ian Yeung, Xueliang Pan, Cynthia Roberts