

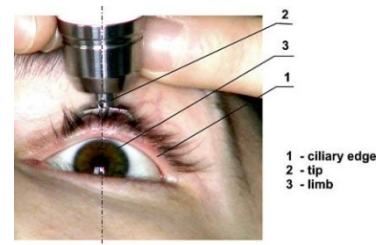
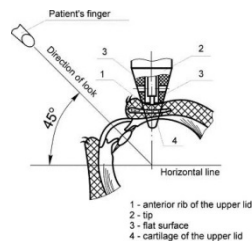


Presents:

# Unique **diaton** Tonometer



**Tonometry (Glaucoma IOP Test) Through the Eyelid!**





# Presentation Summary

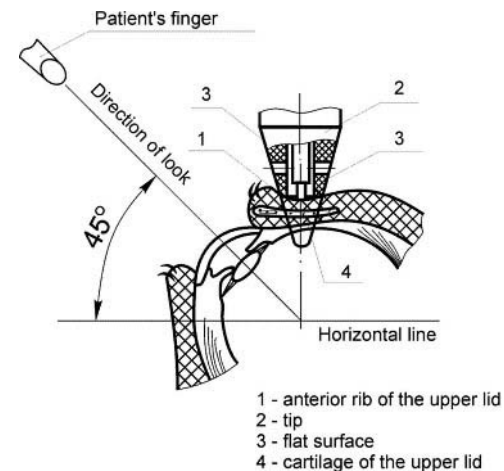
- Unique **Diaton Tonometer**
- Awards, New Technology Recognition
- Typical uses of the Diaton Tonometer
- Benefits / Necessity of Diaton
- Advantages of the Diaton Tonometer
- Results of comparative analysis
- Clinical Study 1: accuracy correlating with GAT; safety and operating speed of NCT
- Clinical Study 2: Primary Care Physician and Patient Experience With Non-corneal Tonometer Glaucoma Screening
- Publications (articles from Ophthalmology and Optometry Times)
- Diaton Posters / Clinical Studies
- Brochures / Catalogue
- Diaton is delivered with: appearance of the tonometer / case
- Contact information
- SUMMARY





# Unique Diaton Tonometer

“Diaton tonometry” is a unique approach to measuring intraocular pressure (IOP) through the Eyelid. **Non-Contact** (no contact with cornea), **no anesthesia** or **sterilization required**, pen like, hand-held, **portable tonometer**.



At the moment there are many methods to measure the intraocular pressure. Direct contact with the cornea is a disadvantage of all these methods. Our product, Diaton Tonometer, differentiates itself from all the other devices. The intraocular pressure is **measured through the palpebra (the eyelid)** near the derma, and because of this technique, any influence upon the mucosa is prevented.

**This new Unique tonometer is a New Wave in Ophthalmology...!**

**Gold Medal** of the International Exhibition of Research and new Technology in "Geneva", plus many others. 🏆













not actual



# Typical uses of the Diaton

Typical uses of the tonometer include the following :









-  - Mass screening of patients.
-  - IOP control during clinical observation and selection of adequate hypotensive therapy for glaucoma patients
-  - Serial tonometry for obtaining Diurnal curve
-  - IOP can be obtained without removing contact lenses
-  - IOP measuring in immobilized patients - measurement can be done sitting or supine
-  - IOP measuring in children. Measurement is taken outside of the visual field
-  - Patients with the following conditions: chronic conjunctivitis, corneal pathology including keratitis, keratotomy, corneal dimness, after penetrating keratoplastics, keratoprosthesis, laser refractive correction, high degree of ametropia, astigmatism
-  - On patients with medicinal allergies
-  - Lasik / LASEK / PRK (Diaton can be used for IOP measurement right after these surgeries)
-  - Diaton Tonometer is intended for use by Inpatient & Outpatient Clinics such as Hospitals, Emergency Rooms, Nursing & Elderly Homes, General & Specialty Practitioners as well as Ophthalmologists and Optometrists.



# Necessity of Diaton

**Need** of **quick, easy-to-use, sufficiently reliable** tonometer in clinical practice for glaucoma **screening**

## Major Benefits of Diaton Tonometer:

-  ***No contact with the cornea (only upper eyelid)***
-  ***No anesthesia drops***
-  ***No risk of infecting or scratching cornea***
-  ***No consumables (no need to purchase replacement tips/covers..etc.,)***
-  ***No sterilization***
-  ***No pachymetry needed (no need to purchase pachymeter)***
-  ***No daily calibration needed***
-  ***Handheld / Portable + Easy to use***





# Advantages of Diaton

Features	diaton	Goldmann Tonometer	Shiotz Tonometer	Air-jet	Tonopen
No contact with the cornea	+				
Portability	+		+		+
Displays independence from cornea's crookedness.	+				
Digital IOP indication	+			+	+
Measurement in sitting position	+	+		+	+
Measurement in reclining position	+		+		+
Short-time measurement	+			+	
Sterilization is not required	+			+	
Anesthesia is not required	+			+	
Lasik / PRK measurement	+				



# Clinical Comparison 1

## Clinical comparison of the Diaton and non-contact tonometers with the Goldmann (*Gold Standard*) applanation tonometer

**Purpose: to compare the reliability of IOP measurements with digital non-invasive devices requiring no anesthesia:**

1. Transpalpebral scleral Diaton tonometer
2. Non Contact pneumat Tonometer (NCT), and
3. The Goldmann Applanation Tonometer (GAT)

(continued)





# Clinical Comparison 1 (cont)

**Eighty-seven (87) patients (146 eyes) with chronic glaucoma**

**Ages - from 29 to 85**

**Male:female - 51:36**

- **Inclusion criteria**

- ▶ Duration of the disease – not less than 1 year
- ▶ Lack of severe non-compensated general pathology

- **Exclusion criteria**

- ▶ Occurrence of concomitant ophthalmopathology (eyelids pathology, high degree of ametropia, cornea pathology)



# Diaton Tonometry





# Clinical Comparison 1 Results:

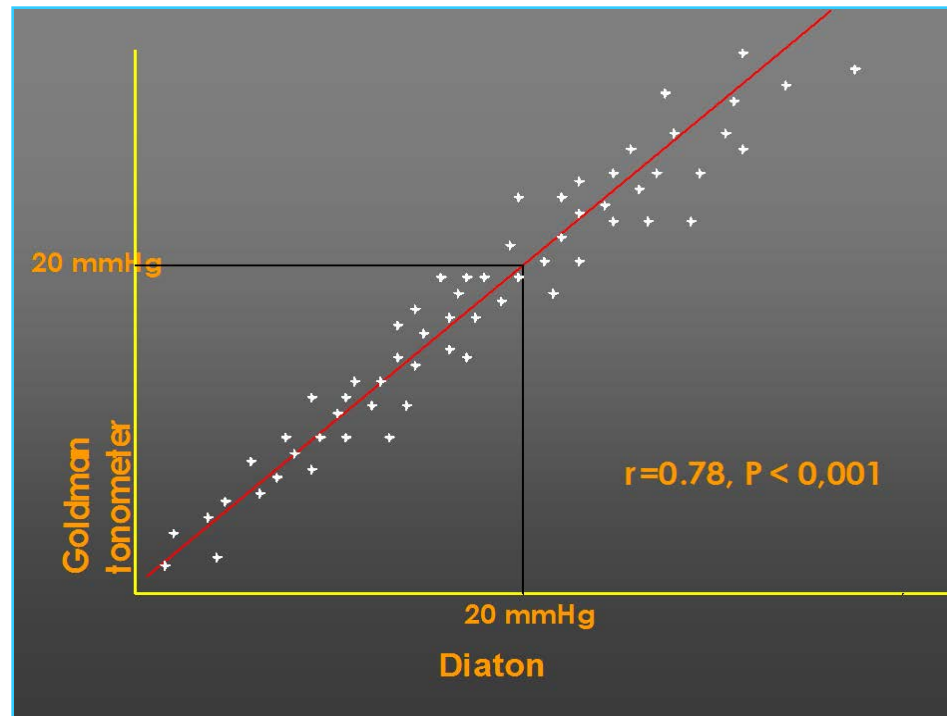
Results of comparative analysis of DIATON, NON-CONTACT and GOLDMANN tonometry measurements

<b>Tonometer</b>	<b>M<math>\pm</math>SD, mmHg</b>	<b>min, mmHg</b>	<b>max, mmHg</b>	<b>Std err of mean</b>	<b>R, p&lt;0,001</b>
<b><i>GAT</i></b>	<b>17,4<math>\pm</math>7,6</b>	<b>6</b>	<b>40</b>	<b>1,17</b>	
<b><i>NCT</i></b>	<b>21,4<math>\pm</math>9,13</b>	<b>5</b>	<b>47</b>	<b>1,91</b>	<b>0,87</b>
<b><i>Diaton</i></b>	<b>16,7<math>\pm</math>5,58</b>	<b>6</b>	<b>36</b>	<b>0,86</b>	<b>0,78</b>

*No significant difference of IOP mean values  
(t = -0,51, p < 0,001)*



# Results: Diaton Tonometry

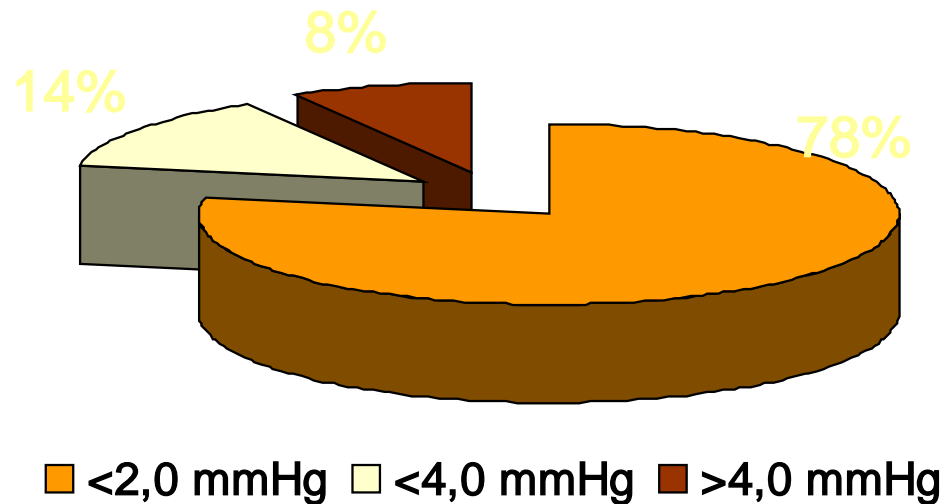


**DIATON has both accuracy correlating with GAT and safety and operating speed of NCT**



# Results: Diaton Tonometry

**Divergence in Diaton-tonometry, non-contact and Goldmann tonometry values**



**When divergence in values was greater than or equal to 4 mm Hg the registered IOP was more then 30 mm Hg**



## Comparison: Diaton Tonometry

The study shows high reliability of transpalpebral scleral Diaton Tonometer

- *sufficient for clinical purpose accuracy correlating with GAT*
- *safety and operating speed typical for non-contact tonometers*
- *possibility to get IOP digital result in cornea pathology and its thickness alteration*



# Clinical Study 2

## Primary Care Physician and Patient Experience With Non-corneal Tonometer Glaucoma Screening

### Purpose:

To evaluate the patients' and primary care physicians' experiences in using the Non-Corneal Tonometer Diaton for screening of glaucoma in the adult population

### Methods:

Primary care physicians (PCPs) were trained to use the non-corneal tonometer using a round testing plate

PCP ensured that patient had no contraindications for tonometer use, then obtained informed consent from patient before using tonometer

Intraocular pressures (IOPs) were recorded and patient was referred to ophthalmology if  $>21$  mmHg

PCP and patient each filled out a questionnaire afterwards to evaluate the experience





## Clinical Study 2 (cont)

### Usage:

#### Indications

**Screening tool for elevated IOP by PCPs**

**Can measure IOP even in the presence of viral infections, allergic reactions, and/or dry eye syndrome, conditions contraindicated for corneal tonometry**

**Can serve as non-invasive day monitoring while selecting the adequate hypotensive medical treatment**

**Can measure IOP with contact lenses on**

**Can measure IOP on immobilized patients**

**Trained family members can monitor IOPs of glaucoma patients at home**

#### Contraindications

**Cannot use in the presence of upper lid pathology (inflammatory diseases, scars, eyelid deformation)**

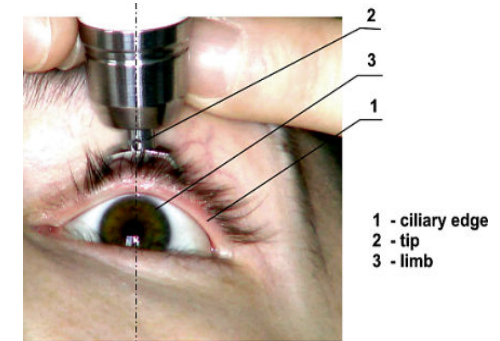
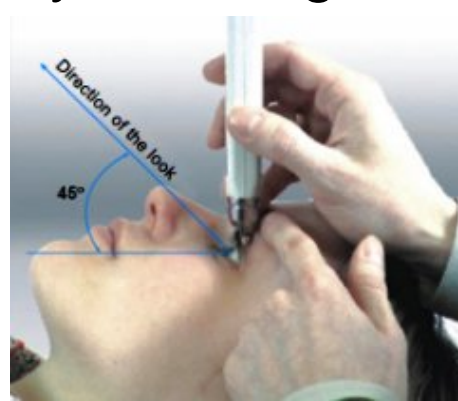
**Cannot use if there is pathology of sclera and/or conjunctiva in the measuring area**



## Clinical Trial 2 (cont)

# Non-Corneal Measurement of IOP

Tonometry performed with patients in sitting or reclining position, with eye looking at a target at 45°



- Tonometer tip placed vertically over the eyelid to measure IOP through the eyelid without direct contact to cornea
- No anesthesia or sedation required



## Clinical Trial 2 (cont)

# Study Population: Characteristics

n = 159 patients

Gender : Male	100 (63%)
Female	59 (37%)
Age (mean +/- standard deviation; range)	55.35 +/- 12.04; 21-86
Ethnicity : Asian	3 (1.8%)
Black	60 (37.7%)
Hispanic	61 (38.4%)
White	22 (13.8%)
Other	13 (8.1%)
Diabetic	33 (20.8%)
Hypertensive	71 (44.7%)
Family history of glaucoma	20 (12.6%)



## Clinical Trial 2 (cont)

### Results

**n = 159 patients**

Mean IOP +/- standard deviation (SD)	14.35 +/- 3.13 mmHg
IOP >21 mmHg	4/159 (2.5%)
Mean Discomfort Score (0 = none, 1 = mild, 2 = moderate, 3 = severe, 4 = extreme) +/- SD	0.17 +/- 0.43
Not mind PCP measuring IOP rather than an ophthalmologist	137/159 (86.2%)
Recommend Diaton Tonometry to family/friends	147/159 (92.5%)
Patients who had experienced Diaton and airpuff tonometry	
- preferred Diaton tonometer	30/36 (83.3%)
- preferred airpuff tonometer	6/36 (16.7%)



## Clinical Trial 2 (cont)

### Results

n = 8 Primary Care Physicians (PCP)

Mean experience when training to use Diaton +/- SD	1.75 +/- 0.46 (very easy = 1, easy = 2, difficult = 3, very difficult = 4)
Mean experience using Diaton on patient +/- SD	1.75 +/- 0.46 (very easy = 1, easy = 2, difficult = 3, very difficult = 4)
Approx. time taken to measure IOP (from positioning to end) +/- SD	2.38 +/- 0.74 (30s = 1, 1 min = 2, 1.5 min = 3, 2 min = 4)
PCPs who like using Diaton	100%
PCPs who would use Diaton again	100%
PCPs who would recommend Diaton use by other PCPs	100%
PCPs would recommend Diaton use by allied/ancillary staff (non-MDs)	7/8 (87.5%)
Of PCPs who were familiar with Diaton and airpuff, preferred Diaton over airpuff	3/3 (100%)



## Clinical Trial 2 (cont)

### Conclusion

**The Diaton non-corneal tonometer uses a transpalpebral approach to measure IOP through the eyelid without contact to the cornea**

**On average, Diaton causes virtually no discomfort to the patient**

**PCPs are easily trained to properly use the device**

**Most patients and physicians prefer Diaton over airpuff tonometer**

**Diaton was able to identify 4/159 patients with an IOP>21 mmHg**

**In summary, Diaton tonometer is a safe and easy-to-use screening tool for PCPs to identify patients at risk for glaucoma and refer them to ophthalmology**




# Approvals/ Clearance:

Diaton Tonometer is clinically proven and

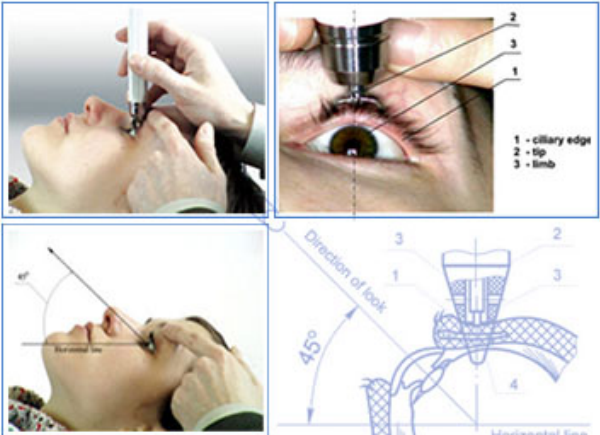
**FDA approved, Class 2, 510k cleared - USA**

**CE Mark 0535 - Europe**

**ISO 9001:2000**



**diaton**  
www.DiatonTonometer.com



1 - ciliary edge  
2 - tip  
3 - limb

Direction of look  
45°  
Horizontal line

**NO CONTACTS WITH CORNEA**  
**NO RISK OF INFECTING**  
**NO ANAESTHESIA**  
**NO STERILISATION**

1-877-diatons  
**BICOM, INC.**





# Publications:

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glaucoma



Transpalpebral technique

## Pen-like tonometer designed to be patient-friendly

Noncontact device measures IOP quickly, shows results similar to 'gold standard' in studies

By Jennifer A. Webb  
Reviewed by John Hope, MD,  
and Mark Latina, MD

**Long Beach, NY**—A handheld tonometer that measures IOP through the eyelid and over the sclera is proving to be helpful for ophthalmologists faced with patients who are apprehensive about seeing an instrument approaching their eyes or who have a corneal abnormality, according to several ophthalmologists who have studied it.

The tonometer (Diaton, BICOM) is a pen-like instrument that measures IOP within seconds without the need for anesthesia or sterilization. Approved by the FDA in 2006, the instrument has been the subject of numerous clinical trials, where it has been found to be comparable with the gold standard: the Goldmann applanation tonometer.

According to Roman Iospa, the company's chief executive officer, the device is available in more than 50 countries, and more than 5,000 units are on the market. Additional accessories are not required.

### Convenience for all

The device appeals to ophthalmologists who see pediatric patients and those with patients who have corneal edema or corneal keratoprosthesis, he said. Because the device is used on the upper eyelid and out of the patients' field of vision as they recline and look at a 45° angle, patients do not tend to blink or squeeze their eyes shut before the reading, which can skew the IOP measurement.

"It is convenient for the doctor and painless for the patient," Iospa said. "There is really no discomfort, especially for the patient who might be slightly anxious."

Mark Latina, MD, and Tarek Shazly, MD, members of the Department of Ophthalmology, Massachusetts Eye & Ear Infirmary, Boston, and Emil William Chynn, MD, an ophthalmologist in private practice at Park Avenue Laser in New York,



**Figure 1** The pen-like tonometer (Diaton, BICOM) measures IOP within seconds, without the need for anesthesia or sterilization. (Photo courtesy of BICOM)

### Take-Home Message

A proprietary tonometer (Diaton, BICOM) has been found to be comparable with the Goldmann tonometer in several clinical trials.

performed a study of the tonometer to compare IOP measurements taken with the device with those from the Goldmann applanation tonometer in normal and glaucomatous eyes.

The study examined 66 eyes of 33 consecutive subjects, 46 eyes having glaucoma and 20 eyes without. Goldmann tonometry was performed by one of the authors, whereas the proprietary device measurements were taken by another author in a masked fashion.

In both the normal and glaucoma groups, 15.15% of the device measurements were exactly the same as those obtained with the Goldmann tonometer. The device underestimates

See **Tonometer** on page 44

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glaucoma

## Tonometer

Continued from page 42

estimated the IOP compared with the Goldmann in 37.87% of eyes, and it overestimated the IOP in 43.93% of eyes.

The proprietary tonometer, however, correlated within 3 mm Hg of Goldmann in 83.3% of eyes and "may be a clinically useful screening device for measuring IOP," the authors concluded.

"At the end of the study, we

reached the conclusion that the transpalpebral technique is a very promising method for tonometry, especially for screening and in patients with corneal pathology," Dr. Shazly said.

Dr. Chynn said that the device might be a good instrument for family practitioners who screen patients for glaucoma, because it does not require anesthesia and can be performed simply in an office setting.

"The [device] is easy to use, user-friendly, and it can be used on patients for mass screening," Dr. Shazly said. "It's portable, it's economical; it's really good for screening purposes."

### Retrospective chart review

Richard S. Davidson, MD, of the Rocky Mountain Lions Eye Institute, Aurora, CO, led a retrospective chart review of consecutive IOP measurements performed on 64 eyes of 32 patients aged 34 to 91 years with both tonometers. Dr. Davidson found that 83% of all measurements were within 2 mm Hg of each other.

"The transpalpebral method of measuring IOP with the [proprietary] tonometer correlates well with Goldmann applanation," the study concluded. "[It] may be a clinically useful device for measuring IOP in routine eye exams."

A similar retrospective review, with Theodore H. Curtis, MD, affiliated with the Rocky Mountain Lions Eye Institute at the time of the study and now in private practice near Portland, OR, found that the tonometer's pressure measurements correlated well with measurements by another proprietary applanation tonometer (Tono-Pen, Reichert). The study found that the aforementioned device was useful when examining children who "were reassured by the fact that no drops were needed."

**The proprietary tonometer requires no anesthesia and can be performed in an office setting.**

John Hope, MD, an ophthalmologist in private practice in Oklahoma City, said that he prefers the device because applanation tonometry is time-consuming and often requires support staff. Dr. Hope said that he has used the instrument routinely on every patient for at least 6 months.

"This instrument is so user-friendly... there are no rubber covers to deal with, and, after the initial purchase, it is virtually maintenance-free," he said. "I clean the instrument with an alcohol pad after each use, and it is easily portable in your pocket and can be transported from room to room or office to office."

"There is no corneal contact and pressures can be obtained in patients wearing contact lenses," Dr. Hope concluded. "The technique is easily and quickly learned."

**fyi**

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Dr. Hope has no financial interest in the subject matter.

**Mark Latina, MD**  
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Dr. Latina has no financial interest in the products described in the article.



**BICOM, INC.**



# Clinical Posters:

## Illinois Eye and Ear Infirmary UIC Department of Ophthalmology & Visual Sciences

Excellence in eye care | research | education for over 150 years

## Agreement among Transpalpebral, Transcleral and Tactile Intraocular Pressure Measurements in Eyes with Type 1 Boston Keratoprosthesis

Jessica Liu,<sup>1,2</sup> Thasarat S. Vajaranant, MD,<sup>1</sup> Maria S. Cortina, MD,<sup>1</sup> Jacob T. Wilensky, MD<sup>1</sup>

<sup>1</sup>Department of Ophthalmology and Visual Sciences, University of Illinois at Chicago, Chicago, IL, <sup>2</sup>School of Medicine, Saint Louis University

### INTRODUCTION

• Currently, most forms of tonometry require an intact cornea to estimate intraocular pressure (IOP), which presents a problem in patients with corneal pathologies such as keratoprosthesis (KPro).  
• Glaucoma is a major visual limiting factor in a majority of patients following keratoprosthesis, but an accurate method of monitoring intraocular pressure readings remains a challenge to clinicians.

### PURPOSE

To explore if transpalpebral IOP measurement with the Diaton tonometer can be an alternative method of measuring IOP and yield valuable data in eyes with KPro in comparison to commonly used tactile and pneumatonometry.

### METHODS

- Retrospective case series
- 23 eyes in 20 patients with Type 1 Boston KPro who presented to the Illinois Eye and Ear Infirmary Cornea Service for follow up
- Inclusion Criteria: age >18 years, ability to understand procedures and willingness to comply with the study

### IOP Measurements

- The first IOP was estimated tactilely by palpation of the globe performed by the patient's corneal surgeon
- The second IOP measurement was taken with a pneumatonometer placed on the sclera peripherally to the contact lens in the inferotemporal quadrant (Model 30 Classic; Mentor, BioRad, Santa Ana, California, USA)
- The third and final IOP measurement was taken with the Diaton through the upper lid in accordance with the instructions by the manufacturer (BICOM, Inc., Long Beach, NY, USA)

### Analysis

- The average of two Diaton IOP measurements were recorded and used in the analysis
- Since the tactile IOP were recorded as a range rather than a definite number, the percent agreement and the percentage of eyes in which the pneumatonometer or Diaton IOPs were within 2 mmHg of the tactile IOP range were computed
- Two-tailed T-test was used to compare the mean of the pneumatonometer and Diaton IOP measurements

### RESULTS



FIGURE 1: Keratoprosthesis



FIGURE 2  
Administration of the Diaton test with the eyelid coinciding with the limbus



FIGURE 4  
Diaton is a no-contact hand-held transpalpebral tonometer that minimizes risk for infection.



FIGURE 3  
Preparation of the patient by fixing head horizontally and glance at 45 degree angle

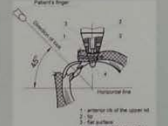


FIGURE 5  
The tonometer tip must be placed in parallel to the cartilaginous portion of the eyelid.

- The analysis included 23 eyes of 20 patients.

### The overall IOP mean $\pm$ SD

17.2  $\pm$  6 mmHg for pneumatonometer  
13.8  $\pm$  5 mmHg for Diaton tonometer  
15.5  $\pm$  5.2 mmHg for tactile by palpation

The pneumatonometer consistently yielded higher IOP values, compared to Diaton ( $p = 0.04$ ).

### The percentage agreement :

85% between tactile range and pneumatonometer IOPs  
95% between tactile range and Diaton IOPs  
48% between the pneumatonometer and the Diaton.

Patient	Eye	Tactile IOP Range	Pneuma-Scleral IOP	Diaton IOP
1	OS	10 --> 20	16	13.5
2	OS	13 --> 19	10.5	9.5
3	OD	10 --> 15	11	10
4	OD	15 --> 20	22	17.5
5	OD	15 --> 20	15	13
6	OD	20 --> 25	24.5	22
7	OD	13 --> 19	20	13.5
	OS	15 --> 20	17	17.5
8	OD	20 --> 25	21	19.5
9	OD	5 --> 10	8.5	5
10	OS	12 --> 18	20	16
11	OD	15 --> 18	22	15
12	OD	10 --> 15	11.5	10
13	OD	20 --> 22	29	18.5
14	OD	~20	18	13
	OS	~20	21	14
15	OD	15 --> 20	26	21
16	OS	20 --> 25	16	20.5
17	OD	<5	10	3.5
18	OD	11 --> 15	12	10
	OD	11 --> 15	13	11
19	OS	very soft	12	5
20	OD	20 --> 22	19	20

### DISCUSSION

It is necessary to monitor IOP in KPro patients since glaucoma occurs in 75% of patients following keratoprosthesis.<sup>2</sup>

- In this study, the presence of KPro did not appear to interfere with Diaton IOP measurements.
- Previously, KPro also did not interfere with scleral pneumatonometry readings.<sup>1</sup> However, scleral pneumatonometry readings have been shown to estimate higher IOPs than corneal pneumatonometry.<sup>3</sup>
- Our findings show that the Diaton tonometer yielded IOP readings that agreed more similarly to those obtained by palpation than by scleral pneumatonometry.

### CONCLUSION

- There still remains a need to eliminate variability in IOP instruments to successfully monitor glaucoma in KPro patients.
- Transscleral pneumatonometry yielded higher IOP readings when compared to tactile and Diaton IOP estimates.
- This study suggests that Diaton measurements may be an alternative method to tactile IOP and may be a device that can help alleviate physician dependent tactile IOP measurements.

### REFERENCES

1. Chen A, Lin CC, Chen M, Jeng BH et al. Scleral Pressure Measurements Pre- and Post Keratoprosthesis Implantation in Cadaver Eyes. Academy Poster 2012 Nov 12.
2. Chew HF, Ayers BD, Hammernsmith MK et al. Boston Keratoprosthesis outcomes and complications. Cornea 2009 Oct 28(9): 989-96.
3. Kapamajian MA, Bang GM, Vajaranant T, Cruz J de la. Correlation Between Corneal and Scleral Pneumatometry Measurements in Adults with Healthy Eyes. ARVO Poster 2009 May 04.

### SUPPORT

Carson Gabriel Fund, Chicago, IL  
Research to Prevent Blindness







# Clinical Poster (cont)



## Comparative agreement among three methods of tonometry: Goldmann applanation, transpalpebral and dynamic contour.



Asociación Para Evitar la Ceguera en México IAP  
Servicio de Glaucoma

5660

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<sup>1</sup>Asociación para Evitar la Ceguera en México, I.A.P.  
Universidad Nacional Autónoma de México; México City.

### Purpose:

To examine the intraocular pressure measurement obtained with the Goldmann applanation tonometer (GAT), the Pascal dynamic contour tonometer (DCT; Swiss Microtechnology AG, Port, Switzerland) and the Diaton tonometer (DT; Bicom Inc, Long Beach, NY, USA). A second objective was to correlate central corneal thickness (CCT) with the GAT, the DCT and the DT.

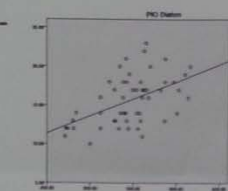
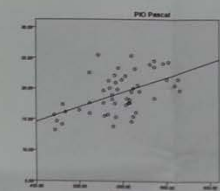
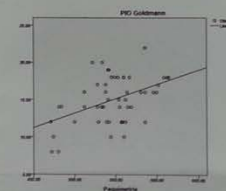
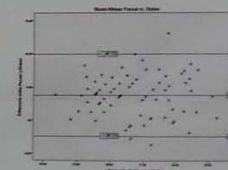
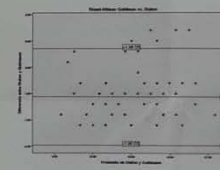
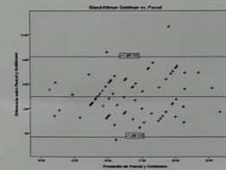
### Methods:

The IOP measurements were obtained with the GAT, DCT and DT by the same observer. CCT measurements were made using the ultrasonic pachymeter. Six Diaton intraocular pressure measurements were obtained before the instillation of anesthesia, after which 2 GAT IOP and 3 DCT IOP measurements were obtained in a randomized order. The device agreement were calculated by Bland Altman analysis (mean difference [bias] and 95% limits of agreement [LoA]). Central corneal thickness were obtain by 3 measurements of each eye and its mean. The effect of central corneal thickness on the intraocular pressure measurement was calculated with the Pearson's correlation coefficient.



### Results:

40 patients, 7 men, 33 women. Ages between 47-82 years. 38 right eyes, 39 left eyes. 26 with primary open angle glaucoma under treatment, 14 with glaucoma suspect. Mean IOP GAT: 14.4 mmHg, DCT: 18.8 mmHg, DT: 15.09 mmHg. Mean pachymetry: 546.2  $\mu$ m. The agreement between GAT- DCT, GAT-DT and DCT- DT were 4.45, 0.69 and 3.71 mmHg , respectively. The correlation between GAT-CCT, DCT-CCT and DT-CCT were .449, .542 and .511, respectively ( $p < 0.001$ ).



### CONCLUSIONS:

Moderate agreement between GAT and DT, bad agreement between DCT-GAT and DCT-DT. Moderate correlation between DCT and DT with CCT. Mediocre correlation between GAT and CCT.



# Diaton Brochures

## diaton UNIQUE TONOMETRY THROUGH EYELID



Ophthalmology Times

Optometry Times

OPHTHALMOLOGYWEB

EyeWorld

Ophthalmology  
MANAGEMENT

BusinessWeek

Medical News  
TODAY

Medicine  
Watch

GRUPO  
FRANJA  
VIRTUAL

REVIEW  
OF OPTOMETRY

Optometry Product Guide

Investigative Ophthalmology  
& Visual Science

Glaucoma  
TODAY

Cataract & Refractive Surgery  
TODAY





## Diaton Brochures



The brochure features a blue background with a white speech bubble containing the text 'Non-Corneal Tonometry?!'. Below this, the word 'diaton' is written in large, bold, orange letters. To the left, a photograph shows a male doctor in a white lab coat using the device on a patient's eye, while a female doctor in a white lab coat stands behind him. To the right, a circular inset shows a close-up of the device's tip touching the eyelid. Below the brand name, the text 'ONLY WITH' is in small blue letters, followed by 'TRANSPALPEBRAL TONOMETRY' in larger blue letters. A list of six bullet points is arranged in two columns. At the bottom, the BICOM, INC logo is on the left, and the phone number and website are on the right.

*Non-Corneal  
Tonometry?!*

ONLY WITH

# diaton

TRANSPALPEBRAL TONOMETRY

- No contact with the cornea
- No risk of infecting
- No need to take out contacts
- No need to adjust with pachymetry
- No anesthesia drops
- No consumables
- No sterilization

**BICOM, INC**

1-877-DIATONS (342-8667)  
[www.TonometerDiaton.com](http://www.TonometerDiaton.com)





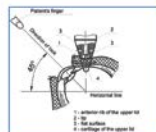
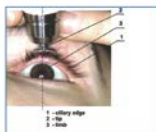
# Diaton Brochures / Catalogue



Measuring of intraocular pressure

- NO CONTACT WITH CORNEA
- NO RISK OF INFECTING
- NO ANESTHESIA
- NO STERILIZATION

## diaton



The unique **diaton** tonometer makes it possible to carry out IOP measuring through the eyelid excluding direct contact with the eye mucous membrane.

Technical "know-how" applied in **diaton** tonometer makes the device more accurate and easy in use.

- Objective control of the device's placing correctness during IOP measuring
- Automated process of IOP measuring
- Evaluation of the received results reliability

Toll free: 1.877.diatons(342.8667)  
www.TonometerDiaton.com



CE0535

NEW GENERATION

NEW RESOURCES

## diaton

**diaton** tonometer provides high reliability of measuring results and makes it possible to diagnose glaucoma on the early stage, appoint necessary treatment and medicines.

The unique methodology of intraocular pressure measuring through the eyelid applied in the device provides new resources in ophthalmotonometry, simplicity and safety of tests.

Transpalpebral **diaton** tonometer is effective and irreplaceable in various situations:

- screening examinations of the patients
- IOP control during selection of adequate medicines
- IOP measuring in the presence in a patient of chronic conjunctivitis, erosions, edema and cornea dimness
- IOP measuring in patients after corneal surgeries
- ophthalmotone day monitoring
- IOP measuring in immobilized patients and in children
- IOP measuring during contact correction (lenses are not taken out).

New **diaton** tonometer has a number of indisputable advantages in comparison with the tonometers traditionally used in clinical practice.

Features	diaton	Goldman Tonometer	Shiotz Tonometer	Air-Jet	Tonopen
No contact with the cornea	+				
Portability	+		+		+
Displays independence from cornea's crookedness	+				
Digital IOP indications	+			+	+
Measurement in reclining position	+		+		+
Measurement in sitting position	+	+		+	+
Short-time measurement	+			+	
Sterilization is not required	+			+	
Anesthesia is not required	+			+	
Lasik / PRK measurement	+				

### SPECIFICATIONS

Measurement range, mm Hg	5-60
Measurement error	Limit of the admissible measurement error in the range , not more: from 5 to 20 mm Hg - ±2 mm Hg; from 20 to 60 mm Hg - ±10%
The time of a single measurement, s, not more	3
Supply voltage, V	3
Number of measurements using one battery set, not less	1500
Service life, not less	8
Weight, g	89
Dimensions, mm, not more	174 x 26 x 20

Method for measuring the intraocular pressure through the eyelid and device for realizing the same are protected with the Patent of Russia № 2123796, United States Patent № US 6,394,954 B1 and Patent of Japan № 3053314.

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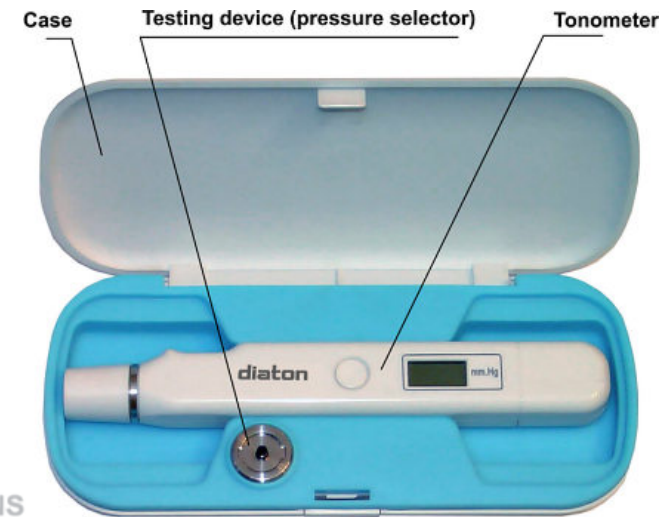
Front / Back



# Diaton is delivered with:

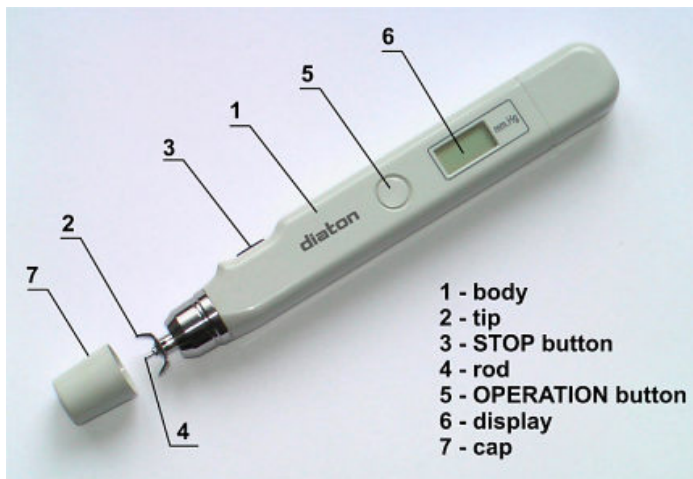
## Diaton Tonometer is delivered complete with:

- Carry-case with testing/calibration device
- Instruction DVD with self calibration and cleaning instructions  
(no need to send it away for service or cleaning)
- User Guide/Manuals
- Battery (3V battery, available everywhere)
- 24 months warranty
- Live support @ 1-877-diatons(342.8667)



### SPECIFICATIONS

Measurement range, mm Hg	5-60
Measurement error	Limit of the admissible measurement error in the range, not more: from 5 to 20 mm Hg - $\pm 2$ mm Hg; from 20 to 60 mm Hg - $\pm 10\%$
The time of a single measurement, s, not more	3
Supply voltage, V	3
Number of measurements using one battery set, not less	1500
Service life, not less	8
Weight, g	89
Dimensions, mm, not more	174 x 26 x 20







# International BiCOM Inc Contacts:

For inquiries please contact our

**Customer Service @ 1-877-diatons(342.8667)**

Or email [Contact@TonometerDiaton.com](mailto:Contact@TonometerDiaton.com)

Web: <http://www.TonometerDiaton.com>





## SUMMARY:



Diaton Tonometer is Clinically Proven to be a Top Choice for Quick and Painless Intraocular Pressure (IOP) testing for Glaucoma in Children and Adults in *Any* Clinical Setting.

Diaton allows to be more efficient and armed with the latest technology available!

[www.TonometerDiaton.com](http://www.TonometerDiaton.com)

