



# The revolution in Dry Eye analysis.

The new solution for smart Dry Eye analysis.



### Dear eye CARE specialist,

is an exciting mission, knowing and lasting solutions to finally notice a change in their visual life. comfort. The habits of modern dry and tired.

with a rapid increase in comfort fast, easily and fully younger generation. Dry Eye automatic. tearcheck® has most common eye disease worldwide and has a strong impact on people's life and Be inspired by our innovation visual comfort.

The earlier Dry Eye cases can be evaluated, the better Dry Eyes can be managed. The easier Dry Eye analysis can be done, the more frequently CEO I President ESW Vision patients' eyes can be checked. The simpler it is to show On behalf of the entire R&D team, visual comfort, the easier it innovation come true

Taking care of vision comfort will be to provide working that more and more people improve peoples' quality of

life, with the intensive use of The concept of tearcheck® digital devices is only one of was driven by the idea of the reasons why eyes can feel creating a new standard for smart, reliable and efficient The condition of dry eyes Dry Eye analysis, which allows is affecting all generations, to evaluate patients' visual Disease became the second been designed based on the latest state of technology.

> and discover the difference for your daily dry eye manage-

Petra BRUCKMUELLER

patients the changes to their who made this break-through



## Visionary technology

tearcheck® allows quick and easy examinations, as in total 8 exams can be done in less than 10 minutes, report included. Two high-resolution cameras inside provide perfect capture of images and videos. White, blue and infrared light are used to perform the different exams within a self-explaining process guiding you through.

A patented new way to evaluate tearfilm stability on the whole cornea, by using a line mask, is provided by two exams, which are done within one recording (TFSE®/NIBUT).

Also patented is the exam to evaluate the degree of inflammation on the ocular surface (OSIE®).





**OSDI Ocular Surface** Disease Index



TFSE®/NIBUT Tear Film Stability **Evaluation** 



**Smart** 

analysis



Meibography IR Meibomian Gland Anatomy



**OSIE® Evaluation** 



**Tear Meniscus** 

**Ocular Surface** Inflammatory



**Abortive Blinking Eyelid Tonicity** 

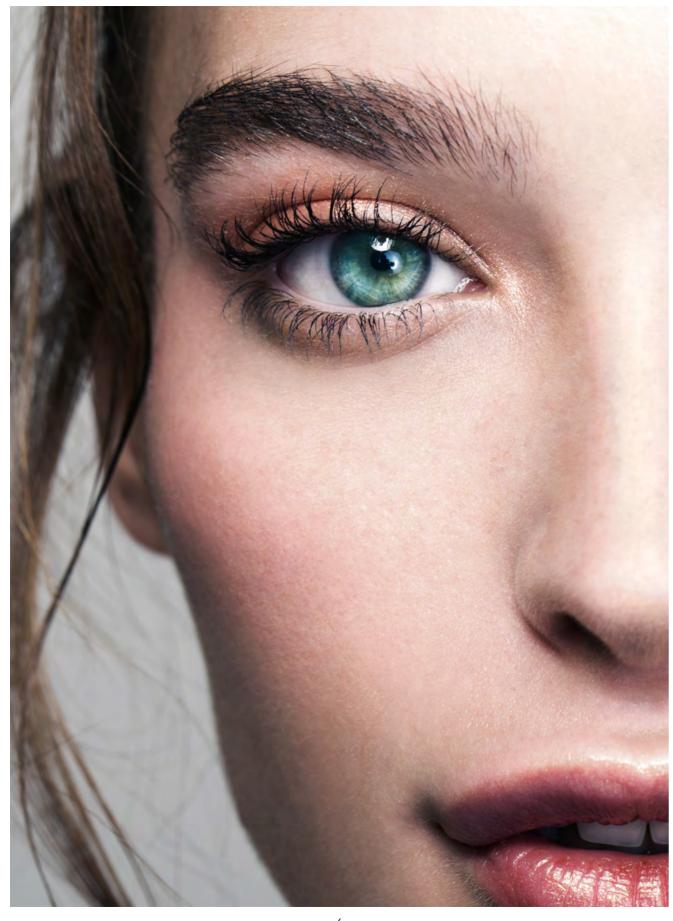


**Eye Redness** 



Demodex Lash base alteration

8 exams in less than 10 minutes report included



#### **A revolution** is born.

them about risks, causes, own patient database. signs and impact ...

The modern way of life, frequent use of digital screens and aging are well-known less visual comfort.

tearcheck® comes with two started;-). screens: one is directly on through the examination. The wherever it fits which is wirelessly connected patient to view the results.

tearcheck® comes with a patient And last but not least: management system inside: tearcheck® results every exam can be stored and or changes in patients' eyes.

Taking care of Dry Eye tearcheck® supports multipatients and their visual user management. Every user comfort, requires educating has their own profile, with their

tearcheck® is delivered completely installed. Just mount different climates, air pollution, it on the table, connect the tablet and start.

reasons why more and more tearcheck® provides fully people are claiming to have automatic analysis, for timeefficient ease-of-use. It simply makes it fun to get things

the device to guide the user tearcheck® can be used, your second one on the tablet, workplace. No dark room required, no computer connecto tearcheck® allows the tion required, no external cable connection needed.

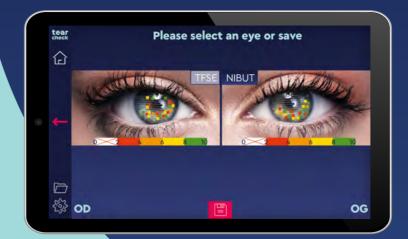
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presented in a final report shown to the patient at any which can be shown directly time to follow up the progress on the screen by selecting concerned dates and types of exams, exported via USB in pdfformat, or printed wirelessly. As you prefer ...

Be inspired by the innovation

,, ... tearcheck® is an innovative, reliable and comfortable device for achieving a proper and precise analysis of Dry Eyes. "

**Dr. Luca VIGO**Carones Vision (Milan/Italy)





#### (Non-Invasive Breakup-Time)

Shows the ruptures in the tear film already from two seconds on, based on highly sensitive detection. Recorded within TFSE® exam.



A new kind of exam to evaluate the **surface of the tear film** three-times per second. Specifically designed optimised horizontal lines replace the traditional circular pattern.

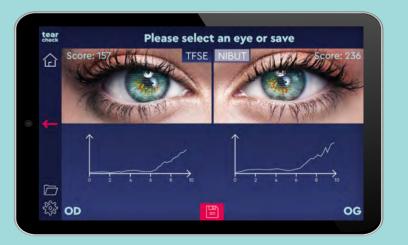




#### **TFSE®**

#### (Tear Film Stability Evaluation)

Makes it possible to assess the micro-deformations appearing on the surface of the tear film. These **micro-deformations** reflect instability of the tear film. They are presented in number and in intensity (score and diagram). And recorded within 10 seconds.





#### Meibography

Makes it possible to visualize the Meibomian glands in 2D/3D imaging. The results help to evaluate the **rate of gland loss** (in %) and the **morphology** of the glands present. A special **eyelid flipping tool** is used to allow touch-free examination.







#### **Demodex**

The Demodex exam consists of an enlarged image capture of the base of the eyelashes. The magnification factor of the image makes it possible to find

and visualize the signs of the

presence of the parasite.





This examination captures images of the bulbar and palpebral conjunctivae. It makes it possible to assess hyperemia induced by the inflammatory phenomena consecutive to dry eye syndrome and to monitor its progress over the treatments delivered to the patient.

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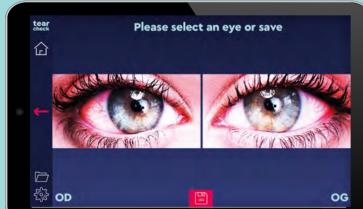


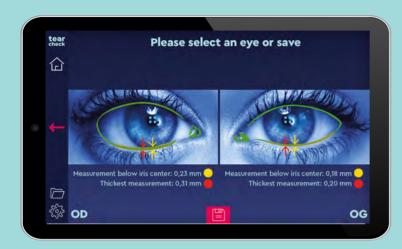


#### **OSIE®**

#### (Ocular Surface Inflammatory Evaluation)

The principle behind this examination resides in the fact that fluorescein will remains "attached" to areas of the eyeball exhibiting surface alteration in connection with an inflammatory process in the case of Dry Eye syndrome.

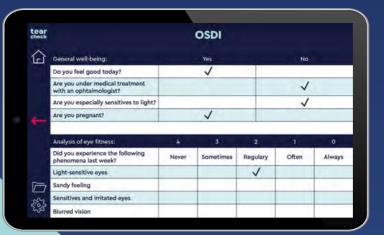






#### Tear Meniscus

Is evaluated in the lower eye lid and is showing, if there is sufficient tear production before the next eye blinking.





#### OSDI

#### (Ocular Surface Disease Index)

A questionnaire intended to be filled out by the patient, reflecting their subjective feeling and opinion on their visual comfort in their daily life.



## **Abortive Blinking**

Within 60 seconds, all blinks are recorded for automatic detection of incomplete blinking.



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#### Reports

The whole reports per patient will be stored. This makes it possible to compare different results from same examination or to regard all selected exams. Report history can be filtered by date or by exam.

tear	Report History			
企	Date	Exam	6 6	
<b>.</b>	2000-03-03 01:29	NIBUT		<b>✓</b>
	2000-03-03 00:46	NIBUT		
	2000-03-03 01:29	TFSE		<b>✓</b>
	2000-03-03 00:46	TFSE		
	2000-03-03 01:17	OSIE		
	2000-03-03 01:15	OSIE		
	2000-03-03 01:34	Demodex		
£	2000-03-03 01:35	Eye Redness		

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## tearcheck® smart & complete

**Technical Data** 

Camera	2 high-resolution cameras	
PC storage space	200 GB	
Light sources	Blue light (465nm) / near infrared light (850nm)	
Certification	CE class I / ISO 13485	
Conformity	93/42/EEC, directive Annex II, article 3	
Light emission	no risk group, according IEC60601-2-57	
RF emission	2.5 GHz	
Contra-indications	_	
Shipping dimensions (LxWxH)	815×520×355 mm	
Shipping weight	12.5 kg	
Energy Source	100-240V / 50-60Hz external power supply	
Dimensions (LxWxH)	240×195×190mm (active part only)	

## Designed for innovative Dry Eye Analysis

Easy I smart I unique



Dry Eye Management.

One step ahead.

www.esw-vision.com



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www.esw-vision.com

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