



The revolution in Dry Eye analysis.

The new solution for
smart Dry Eye analysis.

Dear eye CARE specialist,

Taking care of vision comfort is an exciting mission, knowing that more and more people notice a change in their visual comfort. The habits of modern life, with the intensive use of digital devices is only one of the reasons why eyes can feel dry and tired.

The condition of dry eyes is affecting all generations, with a rapid increase in younger generation. Dry Eye Disease became the second most common eye disease worldwide and has a strong impact on people's life and 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 patients' eyes can be checked. The simpler it is to show patients the changes to their visual comfort, the easier it

will be to provide working and lasting solutions to finally improve peoples' quality of life.

The concept of tearcheck® was driven by the idea of creating a new standard for smart, reliable and efficient Dry Eye analysis, which allows to evaluate patients' visual comfort fast, easily and fully automatic. tearcheck® has been designed based on the latest state of technology.

Be inspired by our innovation and discover the difference for your daily dry eye management.

Yours,
Petra BRUCKMUELLER
CEO | President ESW Vision

On behalf of the entire R&D team,
who made this break-through
innovation come true

Designed to create a new standard for smart Dry Eye analysis.



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®).



Smart analysis



Tear Meniscus



OSDI
Ocular Surface
Disease Index



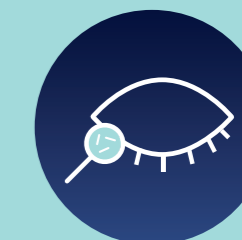
TFSE®/NIBUT
Tear Film Stability
Evaluation



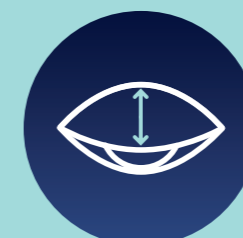
Meibography IR
Meibomian Gland
Anatomy



OSIE®
Ocular Surface
Inflammatory
Evaluation



Demodex
Lash base
alteration



Abortive Blinking
Eyelid Tonicity



Eye Redness

8 exams in less than
10 minutes
report included



A revolution is born.

Taking care of Dry Eye patients and their visual comfort, requires educating them about risks, causes, signs and impact ...

The modern way of life, different climates, air pollution, frequent use of digital screens and aging are well-known reasons why more and more people are claiming to have less visual comfort.

tearcheck® comes with two screens: one is directly on the device to guide the user through the examination. The second one on the tablet, which is wirelessly connected to tearcheck® allows the patient to view the results.

tearcheck® comes with a patient management system inside: every exam can be stored and shown to the patient at any time to follow up the progress or changes in patients' eyes.

tearcheck® supports multi-user management. Every user has their own profile, with their own patient database.

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

tearcheck® provides fully automatic analysis, for time-efficient ease-of-use. It simply makes it fun to get things started ;-).

tearcheck® can be used, wherever it fits your workplace. No dark room required, no computer connection required, no external cable connection needed.

And last but not least: **tearcheck® results are presented in a final report** which can be shown directly on the screen by selecting concerned dates and types of exams, exported via USB in pdf-format, or printed wirelessly. As you prefer ...

Be inspired by the innovation



“ ... to create a disruptive product fully dedicated to dry eye syndrome and capable of constantly evolving, that was my intention behind developing tearcheck®. ”

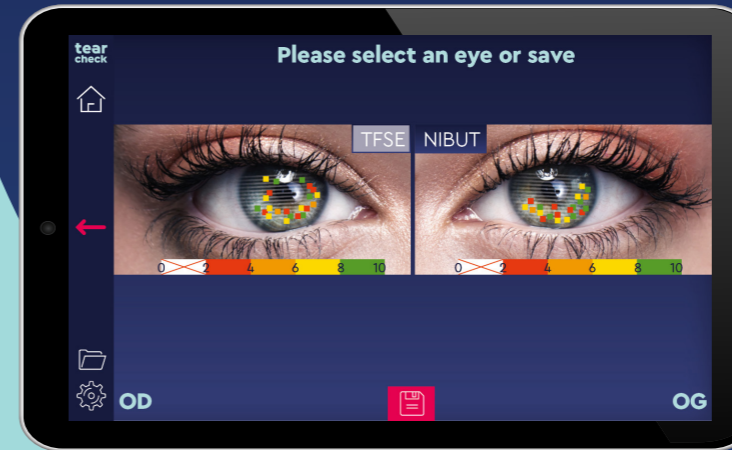
Dr. Yves Vincent **BROTTIER**
Creator of tearcheck®

TFSE® / NIBUT

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.



tearcheck® line mask



NIBUT

(Non-Invasive Breakup-Time)

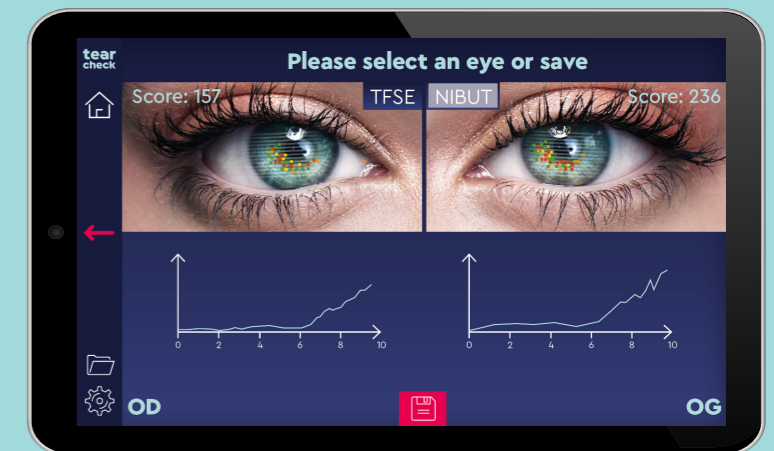
Shows the ruptures in the tear film already from two seconds on, based on highly sensitive detection. Recorded within TFSE® exam.



TFSE®

(Tear Film Stability Evaluation)

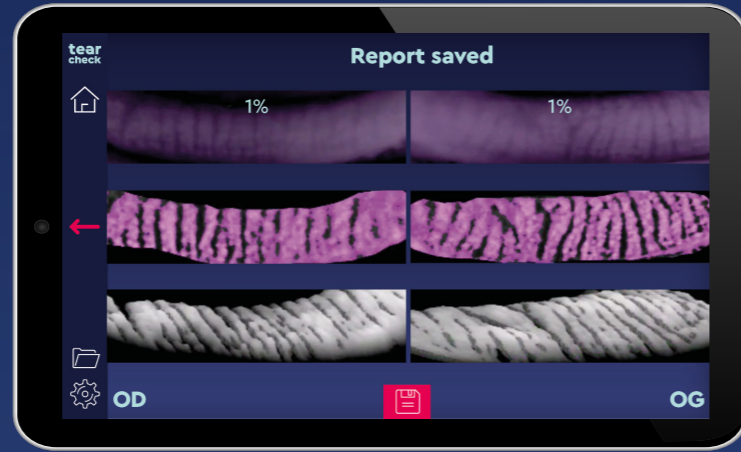
Makes it possible to assess the micro-deformations appearing on the surface of the tear film. These **micro-deformations** reflect instability of the tear film. They are presented in number and in intensity (score and diagram). And recorded within 10 seconds.





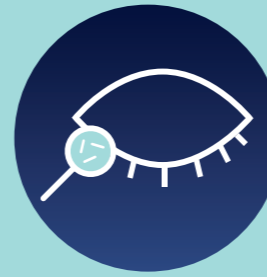
Meibography (2D / 3D)

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.



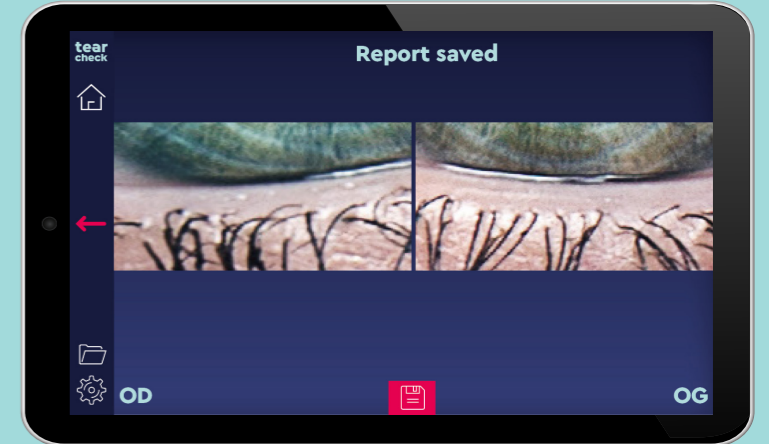
tearcheck® eyelid flipping tool

special



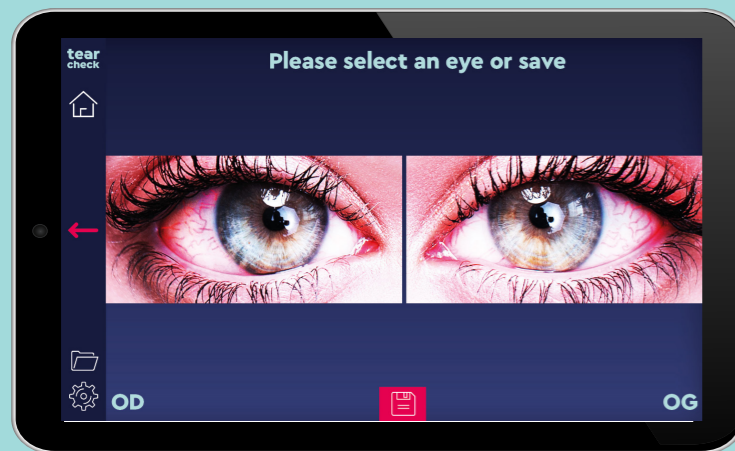
Demodex

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.



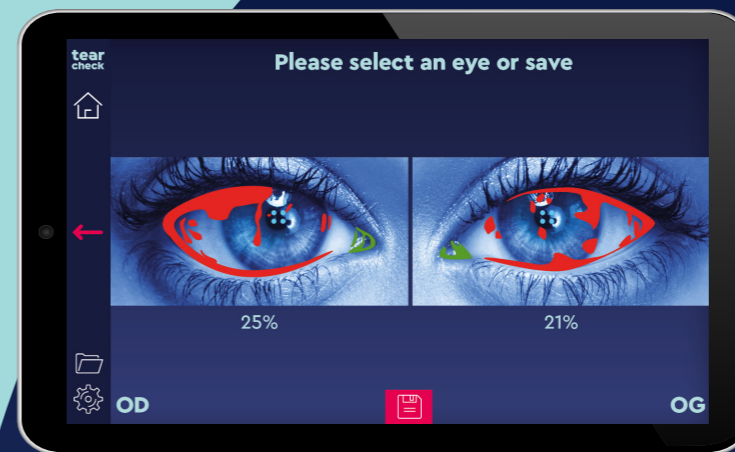
Eye Redness

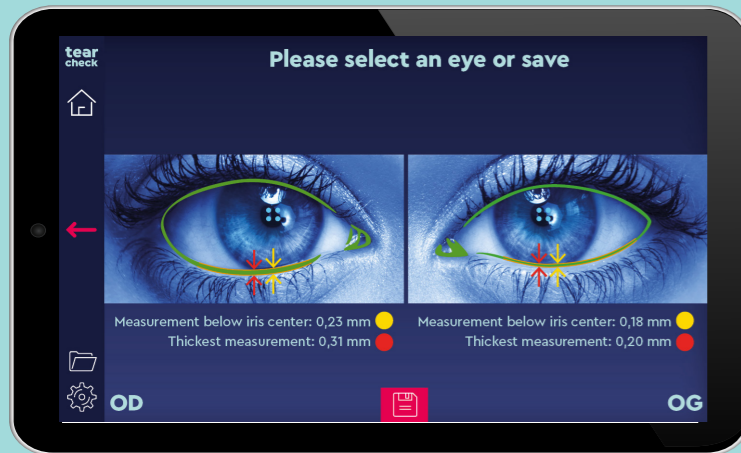
This examination captures images of the bulbar and palpebral conjunctivae. It makes it possible to assess hyperemia induced by the inflammatory phenomena consecutive to dry eye syndrome and to monitor its progress over the treatments delivered to the patient.



OSIE® (Ocular Surface Inflammatory Evaluation)

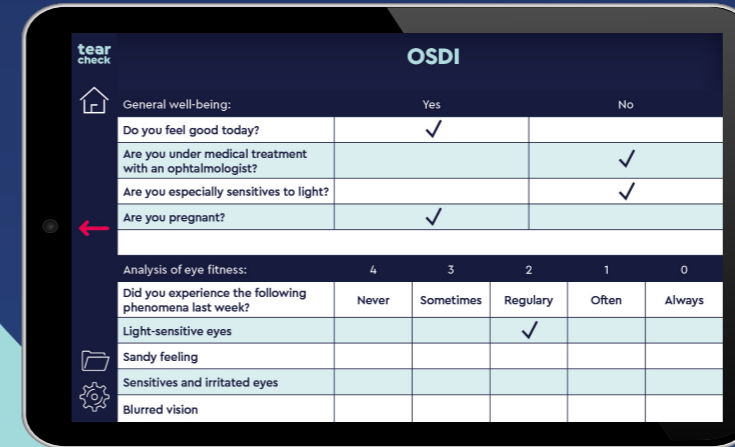
The principle behind this examination resides in the fact that fluorescein will remain „attached“ to areas of the eyeball exhibiting surface alteration in connection with an inflammatory process in the case of Dry Eye syndrome.





Tear Meniscus

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



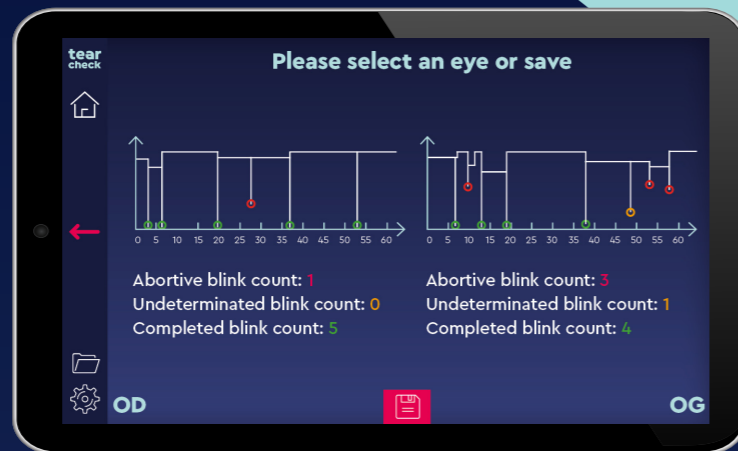
OSDI (Ocular Surface Disease Index)

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



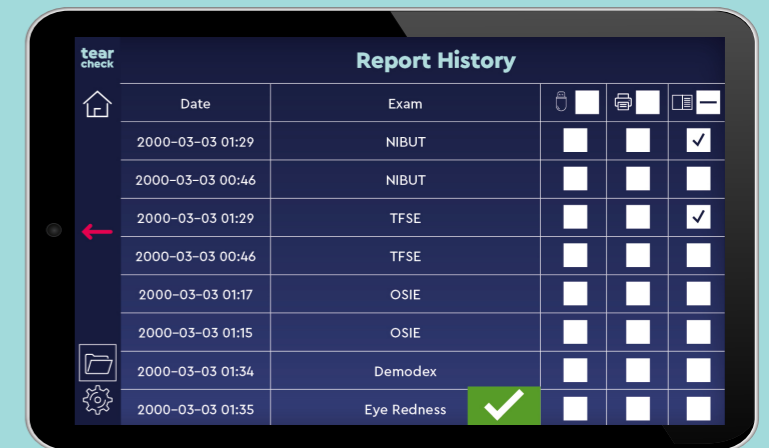
Abortive Blinking

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



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.



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)	815x520x355 mm
Shipping weight	12.5 kg
Energy Source	100-240V / 50-60Hz external power supply
Dimensions (LxWxH)	240x195x190mm (active part only)

Designed for innovative Dry Eye Analysis

Easy | smart | unique

Discover the complete solution
for analysis and treatment.

Dry Eye Management.
One step ahead.

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