

Public hospital

Post-operative
follow up

Specialist
diagnosis

Screening
service

Optometrist

Private
ophthalmologists

Ophthalmic diagnostics anywhere, anytime



TEARSCOPE (Tear Film Screening)



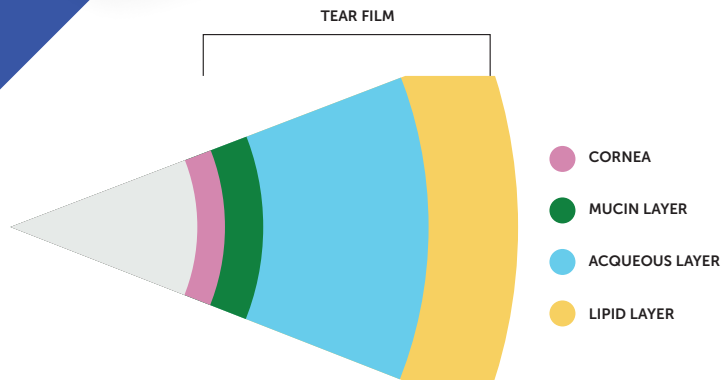
The scattered light emitted by the I.C.P. allows to evaluate the interference fringes caused by the “quality” of the tear film and to classify them in different pattern tear.

The observation of the lipid layer allows us to intervene in a targeted way, evaluating the use of a particular artificial tear, an integrator or the presence or not of lacrimal abnormalities.

- Quantitative test that evaluate the quantity of basal and/or reflected secretion
- Qualitative test that evaluate the functionality and the stability of the tear film
- N.I.B.U.T.: the observation is made without the use of fluorescein
- Dystrophies with Placido's rings without fluorescein.

TECHNICAL SPECIFICATIONS

TYPOLGY	Tear Film
IMAGE RESOLUTION	From 8 to 12 mp
ACQUISITION MODE	Multi shot, tube
FOCUS	Autofocus, manual focus
ISO MANAGEMENT	Variable
MAGNIFICATION	4x to 8x magnification with change via software
GRIDS	Placido disc, NIBUT grid
FILTERS	Yellow filter
LIGHTING	White led - Blue led



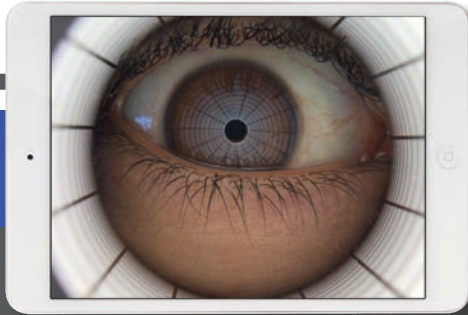
Invented and developed 100% in Italy

Medical instrument in CLASS I registered to the Ministry of Health

Medical electrical equipment CLASS I complies with the norm En. 60601-1.

The technical features of the instrument and its accessories can be improved in any time and without notice.

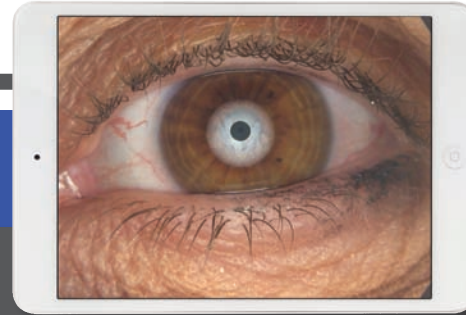
To obtain an updated description we suggest to visit the website www.sbmsistemi.com



Analysis of the break up time of the lipid layer invasive or with installation of fluorescein



Analysis stability and calculation of the lipid layer thickness



Analysis meniscus tear with calculation of automated heights and parameters

ICP Dry eye analysis

I.C.P. Tearscope the new instrument of individual analysis of lacrimal layers that allow with a quick detailed structural research of the tear composition.

Possibility of research on the single layers:

- Lipid
- Aqueous
- Mucin

Thanks to ICP Tearscope is possible to identify the type of DED(Dry Eye Disease) and determine which deficient layers can be treated with a specific treatment.

ICP Tearscope allows to quantify directly and indirectly each single layer

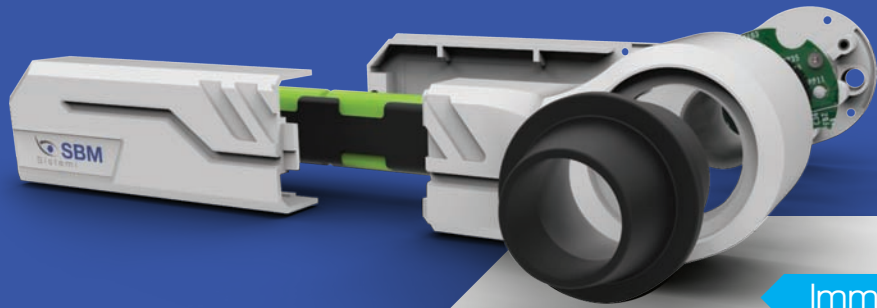
With white LEDs lighting displays in vivo the phenomenon of interference fringes possible to assess the thickness of the lipid component of the tear and run the NiBUT.

With blue LEDs lighting (with the fluorescein) creates a large area and allows you to perform the BUT and look fluorescein of large diameter scleral and mini scleral contact lenses type.

Mucin layer and water layer analysis

The layer watery is evaluated on the meniscus tear categorizing in different categories and possible issues related this. The measurement in mm allows without invasiveness the direct evaluation of the quantity.





Immediate interpretation and follow up

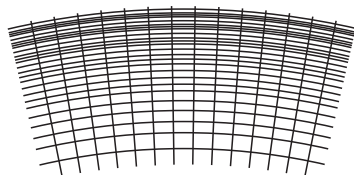
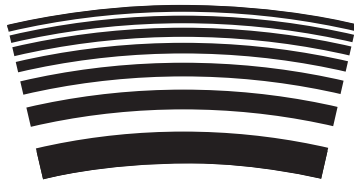
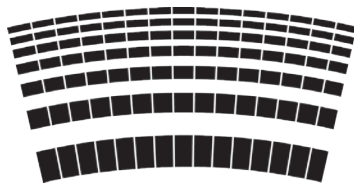
Through the use of GRADING SCALE dedicated to each value obtained from the exams, the interpretation of the obtained data results easy and immediate making the iPad a real platform dedicated to the analysis of dry eye with detailed temporal graphics that allow to demonstrate in simple steps the need of the treatments and then the effective functioning of these!

Supplied accessories

The system is provided with a kit of useful grids to perform various screening, all filters are already present in the system software and includes tests to evaluate and diagnose dry eye problems and can recommend artificial tears.

- Measurement of BLACK LINE (MLMI)
- Evaluation of the integrity of cornea and ascertaining the presence of corneal scars and bruises.

The product is already ready for the connection to Digital Imaging and Communications in Medicine (DICOM)



- Blue and white Led
- A thick grid to observe the quality of the tear film and measure the N.I.B.U.T.
- A fine grid to evaluate the quality and the structure of tear
- A Placido's disc to highlight possible distortions or corneal irregularities
- A yellow and cobalt blue filter via software for applicative evaluation of rigid contact lenses.



N.I.B.U.T or B.U.T.
(with the use of fluorescein)



Interpretation and explanation to the patient



Graphic pre and post treatment with easy interpretation for the patient



All Dry Eye with scales and classified parameters on basis of standard

Analysis lipid layer

Through a quick and easy acquisition of a series of 3 blinks, ICP Tearscope allows to obtain the thickness of the single Lipid Layer of the tear film classifying it in 7 different categories in a quick and precise way the secretion of the lipids by the Meibomian Glands.

Presence of grading scale and comparison in the time for detailed and precise follow up

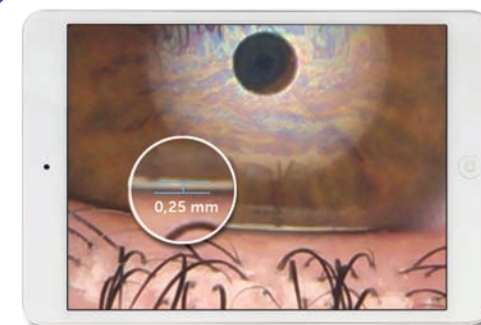
For a detailed analysis of the mucin layer, ICP Tearscope evaluates in both modes the break up time of the lipid layer and, so, the stability through the classic TBUT with possibilities of use of fluorescein in blue light the non-invasive and quick N.I.B.U.T.

Tear meniscus height measurement

The tear film is the thin layer of liquid (about 8 μ , its thickness is variable on basis the considered portion and it results at maximum at cornea level) composed 98% of water and for the remaining 2% by protein and lipids, that is continuously and uniformly distributed on the ocular surface of the closing of the eyelids and that performs irreplaceable functions for our sight.

In fact it is able to improve the optic quality of the image regularizing the corneal surface (it has an index of refraction of 1,33, very close to that of the cornea); it allows an adequate lubrication reducing the friction of the eyelids, it allows the transport and the diffusion of molecules (oxygen, carbon dioxide, ions, mucins, lipids with a slightly alkaline pH 7,3/7,8), vital elements for the survival of the epithelia and of the cornea, it has strong antibacterial activity thanks to the presence of some enzymes and it guarantees the parts and keeps the ocular surface clean removing impurities from the environment, the waste of metabolism and exfoliated cells.

In the photos (on the left) is possible to recognize the diffraction of light on the lipid layer, on the right is possible to see the meniscus composed by tear film between the edge of the eyelid and the cornea (normal if its height is included between 0.2-0.5 mm).





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