



## Dedicated Dry Eye platform

Analysis on all tear film layers (Lipid, Aqueous, Mucin) and Meibomian Glands

- Complete examination
- Comprehensive evaluation



February 2023  
ver. 1 - 2023

### Diagnosis



4 results with a single 15 seconds acquisition

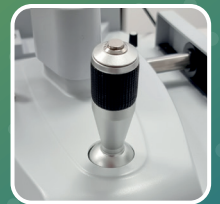
- Tear Meniscus thickness
- Auto Interferometry
- NIBUT
- Blink evaluation



Auto Interferometry



Auto Meibography



Joystick One-click acquisition



A dedicated platform for dry eye diagnosis, provides complete dry eye tests according to the recommendation of TFOS DEWS II report.

| SBM Sistemi                                 | Full   | plus   | basic |
|---|--------|--------|-------|
| Interferometry test                         | ✓ auto | ✓      | ✓     |
| Tear Meniscus height                        | ✓ auto | ✓ auto | ✓     |
| Auto NIBUT                                  | ✓      | ✓      | ✓     |
| Lacrimal topography map and stability chart | ✓      | ✓      | —     |
| Meibography                                 | ✓      | ✓      | ✓     |
| 3D Meibography                              | ✓      | ✓      | —     |
| Eye blink detection                         | ✓      | ✓      | —     |
| Protocol                                    | ✓      | ✓      | ✓     |
| Connection with patient App                 | ✓      | ✓      | ✓     |
| Report                                      | ✓      | ✓      | ✓     |
| Lifestyle questionnaire                     | ✓      | ✓      | ✓     |
| BUT test - Staining test                    | ✓      | ✓      | ✓     |
| DEQ5  | ✓      | ✓      | ✓     |
| Pupillometry test                           | ✓      | ✓      | ✓     |
| Bulbar redness                              | ✓      | ✓      | ✓     |



## Joystick One-click acquisition

IDRA Base is built with a precise smooth and high-quality joystick. Images and movies can be captured instantly and conveniently by pressing the joystick button.

## Left/Right automatic detection

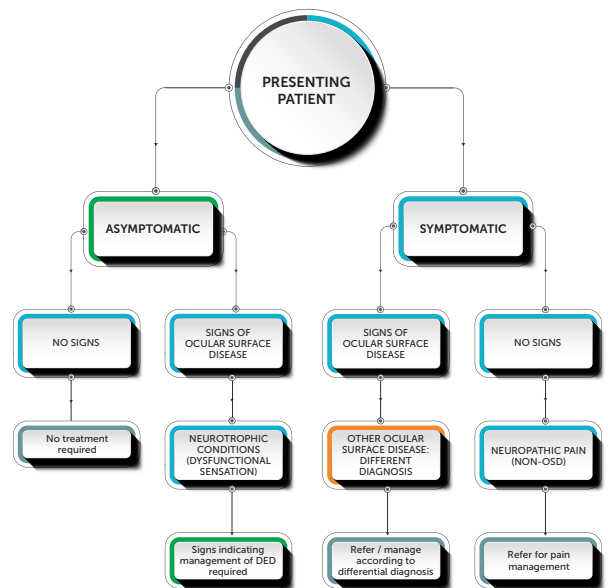
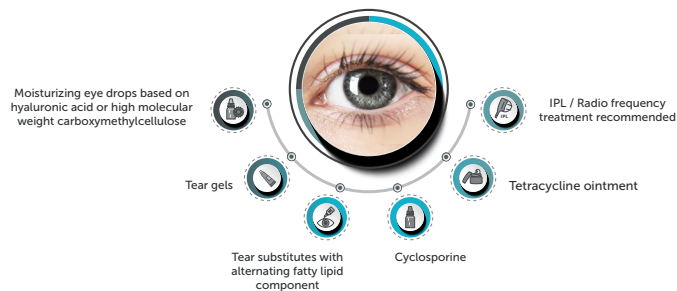
IDRA Base automatically recognizes the right and left eye, allowing an even faster diagnosis of the ocular surface.

## Diagnosis suggestion

### Ocular surface data and pathology classification

IDRA includes a suggestion algorithm which is a possible treatment approach for each patient.

All suggestions can be useful for diagnosis and treatment.



## The evaluation of the tear film

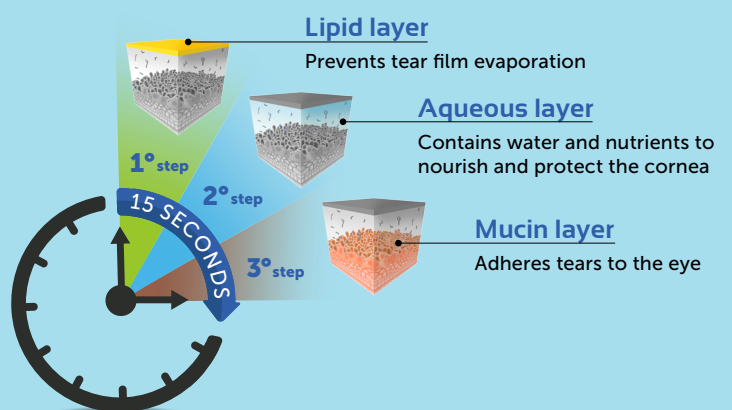
The SBM device is the new instrument for the individual analysis of tear film that allows you to carry out a quick detailed structural analysis of the tear composition.

Evaluation of all the layers (**Lipid, Aqueous, Mucin**) and **Meibomian Glands**.

Thanks to the SBM device it is possible to identify the type of Dry Eye Disease (DED) and determine which components can be treated with a specific treatment, in relation to the type of deficiency.

The tests required for the diagnosis of the Dry Eye are well specified in the report of the DEWS II 2017 TFOS

## Evaluation of all tear film layers



# Description of main exams

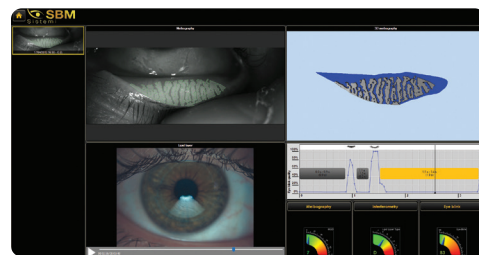
## Auto interferometry

### Complete meibo analysis: Structure and secretion view

Using the new SBM Sistemi device, Interferometry is easy, quick and automatic.

The software automatically detects the coloured lipids on the patient's eye and determines lipid layer thickness (LLT).

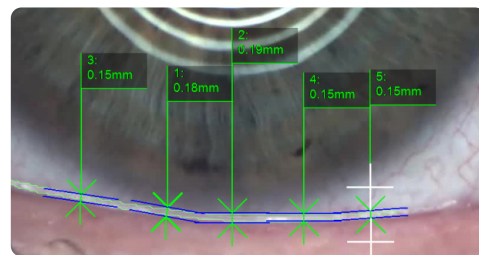
In a few seconds it is possible to automatically get relevant data to understand functionality of Meibomian Glands such as average LLT.



## Tear meniscus height measurement

Low tear production may result in aqueous tear deficiency (ATD) and cause dry eye symptoms. However, measuring the tear volume is difficult since the methods normally used are invasive and irritating. Reflex tear production can be induced, giving an over-estimation of basal tear flow and volume. The sizes of the tear meniscus are related to the tear secretion rate and tear stability, and they are good indicators of the overall tear volume. Tear meniscus height is related to the tear secretion rate and tear stability and for this reason it's a good indicator of tear production.

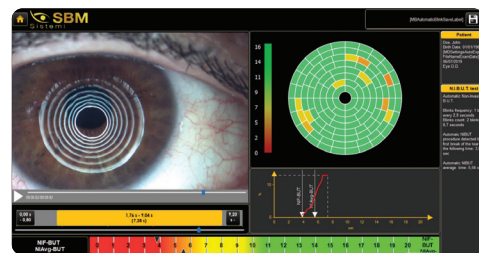
The aqueous layer is evaluated through the non-invasive "Tear Meniscus" test and is then classified into different categories.



## Auto-NIBUT

The SBM device allows to evaluate tear film stability and regularity, using non-invasive break up time measurement (NIBUT). It measures the number of seconds between one complete blinking and the appearance of the first discontinuity in the tear film. With the SBM Device, thanks to one single video, the physician can gain lots of information:

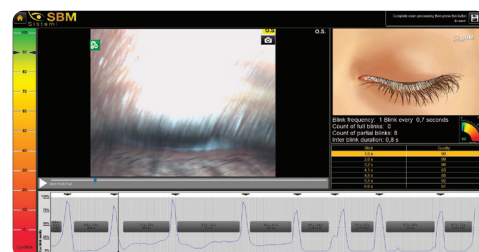
- Automatic NIBUT
- Average of more than one value
- Graph to understand the trend of tear film stability during the video
- Tear topography that shows the breaking of the tear film during time.



## Blinking quality

It is also well known that wearing contact lenses (both rigid and soft lenses) can induce significant changes in blinking rate and completeness.

It is been established that efficient blinking plays an important role in ocular surface health during contact lens wear and that it improves contact lens performance and comfort. Inefficient blinking during contact lens wear may be related to a low blinking rate or incomplete blinking and can often be a reason for dry eye symptoms or ocular surface staining. Automatically detects and analyses blinking, and determines its quality.



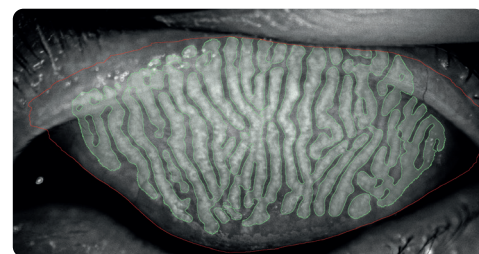
## Meibography

### Meibomian gland auto detection on upper and lower eyelids.

Meibomian Glands (MGs) play a significant role in tear quality by producing lipids (meibum) that are part of the superficial tear film. Dysfunction of the MGs destabilizes tear composition resulting in evaporative dry eye.

### Automatic lid detection

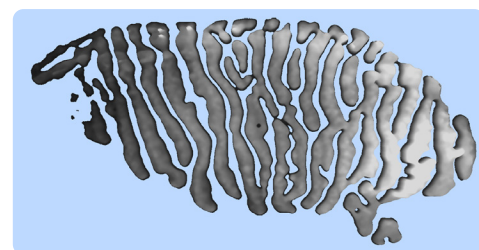
To decrease evaluation time, the software automatically detects the lid margin for MG analysis.



## Meibography 3D

The revolutionary introduction of the 3D Meibomian Gland imaging gives two big advantages. Firstly, it enables to confirm the presence of abnormal glands compared to a healthy subject in a 3D view; secondly, it provides a clear image to share with the patients, to help explain the potential reason of their discomfort.

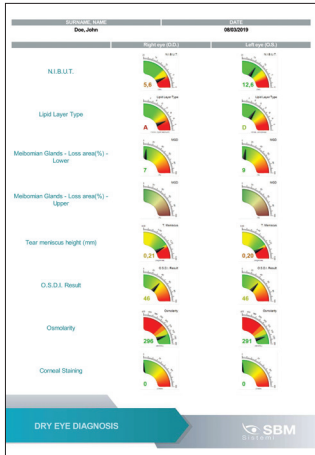
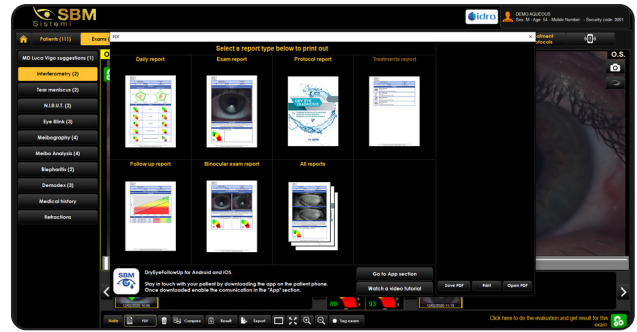
Moreover, this new imaging system provides strong evidence to support the choice of a specific therapy (for example IPL treatment) and helps the patient to understand why a certain therapy is being recommended.



# Report

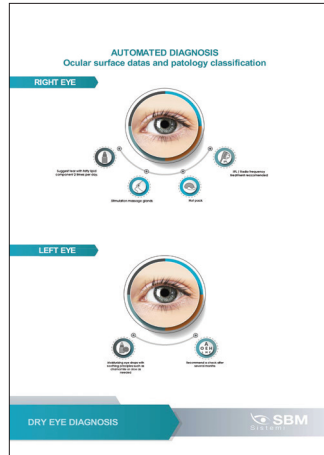
## Different reports available

The software is a dedicated platform for dry eye and allows, in addition to helping in the diagnosis and classification of diseases, to print and save various medical reports, offering the most professional and clinical solutions to patients. For customer satisfaction, it is often advisable to provide technical documentation relating to the exams taken. Thanks to the various print reports of the SBM device, you will have the possibility to visually explain and simply demonstrate the pathology situation. Furthermore, it's possible to explain how the pathology has changed over time.



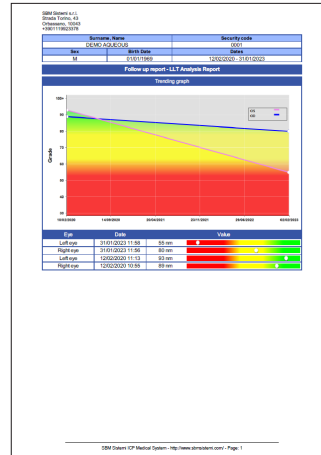
### Complete report

Complete report with all results and pictures used to explain to the patient any dry eye category.



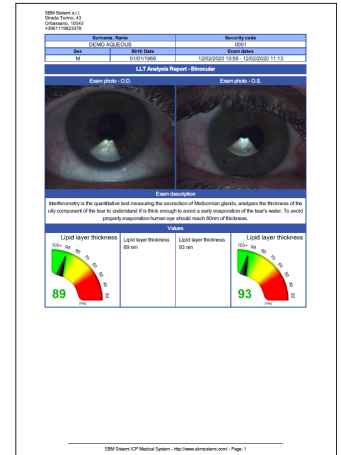
### Treatment report

Patient oriented report explaining causes of pathology and recommended treatments.



### Follow up report

For each value it is possible to show the trend line before/ during/after treatment.



### Binocular report

To save in a single PDF the same images of both eyes.

## Easily connect and communicate with your doctors or specialists directly on your mobile phone

### Anytime. From anywhere

This application is closely connected to the software of SBM devices. The doctor after the exam, can send all the exams results; in this way the patient can always have access to all details.

View your situation in an easy and understandable way. All your results are shown on a graded indicator allowing the patient to view their own progress.



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

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