Meibography
With the Phoenix Analysis Software

- Quick and easy screening of evaporative dry eye.
- Patient Friendly “non contact” technique.
- Simple and precise digital classification of Meibomian Gland Dysfunction via the Phoenix software.
- The measurements can be carried out by the ophthalmic technician.
Up to 50% of contact lens wearers and 20% of patients who do not wear lenses complain of dry eye symptoms. 1-3.
The most common form of dry eye is “evaporative dry eye” and Meibomian Gland Dysfunction is widely acknowledged to be the main cause.4-6 A chronic dysfunction of the Meibomian glands, Blepharitis, computer screens, increasing age and contact lens wear can all lead to the degeneration and loss of the Meibomian glands.9, 10

**Meibography**

**With the Phoenix Analysis Software**

The **Sirius** Scheimpflugcamera, the **Cobra** Fundus Camera and the topographer **EyeTop-S** and **Antares** and can all be used in combination with the Phoenix-Meibography Imaging Module, to make a rapid and easy assessment of the Meibomian gland morphology. Irregularities can be quick and easily assessed.

The so called “Non Contact Technique” 11,12 of the Phoenix Meibography together with a high resolution infra-red camera allow image capture with optimal patient comfort.

**SIRIUS**
3D Scheimpflug-Camera and Topography-System

**COBRA**
Nonmydriatic, Digital Fundus Camera

**EyeTop-S**
Cornea-Topographer

**EyeTop-S**
Tear Film-Topographer

**Diagnosis of Meibomian Gland Dysfunction**

Lid Morphology, the type of secretion during gland expression, the thickness of the lipid layer and gland loss are all factors of Meibomian Gland Dysfunction that can be assessed using Meibography. 12-14

The unique in vivo imaging capability of the Phoenix Meibography module provides not only a true method for documenting change, it also enables you to distinguish between evaporative and aqueous tear deficient dry eye conditions. Exact diagnosis allows effective therapy. 15
Beginning with (1) an elevated viscosity of the meibomian oil, due to a change in the melting point, an obstruction (2) of the meibomian gland opening occurs, resulting in hyper gland keratinization. Stasis (3) increased pressure of the ductal system. Atrophy (4) of the gland acini, resulting in gland shortening and total gland loss. Whereas stages (1) and (2) can be evaluated via gland expression at the slit lamp, stage (3) and (4) can otherwise not be assessed.

Classification:

The digital analysis of the Phoenix Meibography Module provides an exact and repeatable classification of the gland loss. A surface loss of 30% indicates an evaporative dry eye. Phoenix Meibography is in all its applications (Scheimpflug, Topographer and Fundus Camera) extremely easy to use and can thus be delegated for quick and easy screening, saving chair time in the diagnosis and therapy of dry eye.

Documentation:

Phoenix Meibography provides excellent documentation possibilities allowing a clear overview for follow up and therapy planning purposes. Phoenix Meibography is a must for the contact lens fitter, it provides a complete overview and allows specific monitoring of contact lens related gland loss. The digital graphics make patient education easy and effective and help gain improved compliance and recall visits.
References:


