



## Keeping a clear view - support with SANUM preparations for keratoconjunctivitis sicca

eratoconjunctivitis sicca, colloquially known as "dry eye", results in impaired formation and thus a pathological composition of the natural tear film in the eye. This can lead to inflammation of the surface of the eye, epithelial damage and, in rare cases, even blindness.

Between 15-17 % of the total population in Germany are affected by the symptoms of dry eyes. The prevalence increases with age. Women are also affected more frequently than men. The symptoms range from stinging, burning, itching and a foreign body sensation to extensive redness and severe eye fatigue with no loss of physical performance. Contact lenses are less well tolerated and environmental stimuli, such as light and draughts, are less tolerated. Vision may also be clouded. As dry eye is the result of an unphysiological composition of the tear fluid, it can paradoxically lead to increased mucus secretion and a strong flow of tears.

A healthy tear film, which normally covers the eyeball and the inside of the eyelids without any gaps, has a thickness of 5-7  $\mu\text{m}$  and a total volume of 5-12  $\mu\text{l}$ . It consists of three superimposed layers: at the very bottom, directly on the cornea, there is a mucin layer that cohesively anchors the entire tear film to the corneal surface. An aqueous phase lies on top of this.

Among other things, this is responsible for the lubrication of the eyelids and the transport of nutrients, defence substances, waste products and oxygen. The aqueous phase is covered on the outside by a lipid layer, which prevents the tear film from evaporating and also contributes to optimum lubrication of the eyelids through a lubricating effect. Various glands are responsible for secreting the tear film. A healthy tear film cannot be maintained in a pathological environment; this leads to inflammatory reactions and ultimately to epithelial damage.

The causes are manifold - the cause as such does not exist. Dry eyes can occur as a result of ageing, as an overload syndrome, e.g. due to a lot of screen work (office eye syndrome) or as a concomitant disease in autoimmune diseases and skin diseases such as psoriasis and neurodermatitis. However, it can also be the result of a metabolic, hormonal or thyroid disorder. Other possible causes include side effects of various medications, a vitamin A deficiency or environmental pollution. It therefore quickly becomes clear that a comprehensive, holistic diagnosis is required in order to develop a basic therapy concept. Last but not least, the surface of the eye is part of the mucosa-associated lymphatic tissue and can therefore rarely be satisfactorily influenced without systemic measures such as a change in diet, regulation of the acid-base balance and intestinal cleansing.



*SANUM offers the use of MUCOKEHL® D5 eye drops (2x 1 drop daily on both sides) for local support of the eye, which are now also available in pharmacies as single-dose pipettes without preservatives under the name MUCOKEHL® D5 SINE eye drops.*

*The eye drops can be supplemented with orally administered SANUVIS® drops and SANKOMBI® D5 drops, both of which are also part of the SANUM eye cure. This treatment can be carried out 1-2 times a year or for 4-6 weeks if required.*

#### **SANUM eye cure**

MUCOKEHL® D5 or MUCOKEHL® D5 SINE Eye drops  
2x drops 1 daily – to support the blood flow to the eye

SANKOMBI® D5 2x 5 drops daily –  
to support the lymph and blood flow

SANUVIS® drops  
1x 60 drops daily to one liter of water, spread over the day - to support the primary metabolism and the environment

## **Trade forms**

### **SANKOMBI® D5 drops**

10 ml bottle

#### **Dosage**

Adults and adolescents from 12 years: 2x 5 drops daily.

### **MUCOKEHL® D5 Eye drops**

5 ml bottle

#### **Dosage**

Adults and adolescents from 12 years: 2x 1 drops daily locally

### **MUCOKEHL® D5 SINE Eye drops**

10 single-dose containers of 0.5 ml eye drops

#### **Dosage**

Adults and adolescents from 12 years: 2x 1 drops daily locally

### **SANUVIS® drops**

100 ml bottle

#### **Dosage**





Adults and adolescents from 12 years of age:  
1- 60 drops daily in 1 liter of water, drink throughout the day

For further product information, please refer to the respective instructions for use.