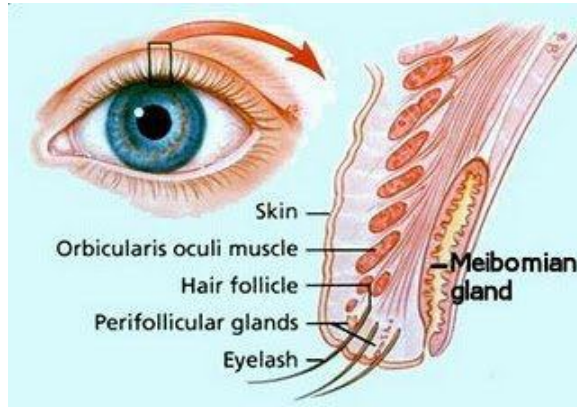


## Instructions for Lid Margin Hygiene



### What is meant by eyelid margin changes?

Your eyelids may become red and/or there may be oiliness, scaliness, or “crust” formation of the eyelid margins and eyelashes, which can cause irritation, burning, and foreign body sensations. Occasionally, styes can form. The symptoms tend to be more pronounced in the morning just after you wake up, and your eyelids can often feel somewhat sticky and swollen. In most cases, these are chronic changes, and even if it is treated successfully, this can return. Regular treatment with regular warm moist compresses and/or eyelid margin hygiene is therefore very important not only to treat the disease, but also to stop it from recurring.

### How do these change in the eyelid margin occur?

There are two regions of the eyelid margin where these changes can occur: the anterior (front) part or the posterior (rear) part.

With anterior lid margin dysfunctions, the changes are particularly noticeable on the eyelashes: they tend to become scaly or greasy. There may be colonization of bacteria (e.g. staphylococci). Often these changes also occur as complications of atopic dermatitis or acne rosacea, causing the skin to become inflamed, red, and scaly.

Changes at the posterior lid margin affect the meibomian glands, which produce the superficial lipid layer for the tear film that helps reduce evaporation. When one or more glands fail (or their outlets, the “gland orifices” become blocked), this results in a thickened and/or reduced secretion of meibomian oil. Excess secretion of meibomian oil is also possible and manifests itself in an excessive amount of lipids being secreted into the tear film. This results in a disturbance of the tear film, which paradoxically, can also lead to the development of dry eye.

## Types of treatment

If the changes are in the anterior lid margin and mild to moderate at the anterior lid margin, lid margin hygiene is sufficient. However, if the change is more advanced, medical treatment by a doctor is necessary. If the changes are in the posterior lid margin, then warm and moist compresses are effective.

## Warm and moist compresses

You can apply the moist-warm compresses in the following four steps:

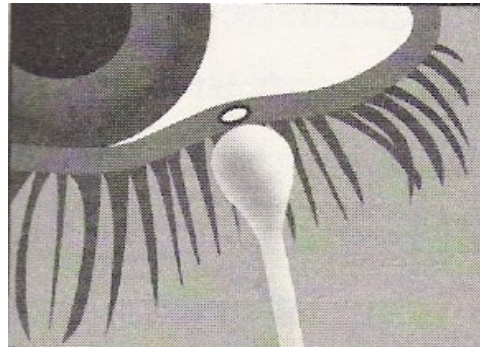
### Step 1: Moist warmth

Ideally, you should use a hot pack (see photo below), which ensures the required temperature (approx. 41°C; a little warmer than your hands) for the desired duration. You place the gel goggles on your closed eyelids for a period of 8 minutes. Since moist heat may reach better the inside of the eyelid (where the meibomian glands are located), it is recommended to place a damp cotton pad (for example, make-up removal pads) or a damp washcloth under the gel goggles directly on the closed eyelids.



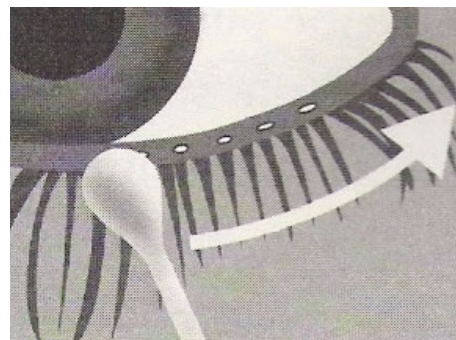
### Step 2: Massage

Massage the lower eyelid with the tips of your finger several times from the bottom to the top, and the upper eyelid from top to bottom, applying pressure to the glands from the outside and gently stroking the contents out. It is particularly important that you massage the lower eyelid close to the edge of the lid, and to make sure that the lid does not roll outwards. Start massaging at the nose end of the eye and gradually move outwards. The amount of secretion that you press out of the glands is so small that you probably cannot see it with the naked eye. What this means is that you should not press too hard! A gentle squeeze should be enough.



### Step 3: Cleaning

Next, clean any debris from the rim of the eyelid. To do this, simply run a cotton swab along the eyelid (wiping away from the side of the nose). It is important not to wipe the debris in the direction of the surface of the eye, as this would irritate the eye. Also, make sure that you clean only on the edges of the eyelid and avoid contact with the eye itself.



## Step 4: Final cleansing

Finally, you should rinse your face with cold water, in order to refresh your eyes and to remove last remnants of crusts and secretions.

## Eye Lid Cleansing

For eyelid rim cleansing, there are some commercially available products, which are particularly effective and gentle on the eyes and the surrounding skin. Depending on the product, you can massage the foam onto your closed eyes, clean the eyelid margins with a moist cleansing pad, or use a cleansing liquid with a cotton pad and cotton swab. Please do not use baby shampoo diluted with water, as this can have a negative effect on your tear film and dry out the sensitive skin of your eyelids.

## Daily lid hygiene

Lid hygiene should ideally be performed twice a day during the acute phase, but at least once a day (preferably in the morning). However, as this is a chronic disorder, it should be applied at regular intervals (several times a week) even after it your symptoms have gone away.

## Artificial tears

For irritated, tired, and dry eyes, artificial tears can be soothing and refreshing. For alleviation of your symptoms, apply one drop per eye (see instructions below), 4–6 times per day. Make sure that the drops are preservative-free, as the preservative can have a negative effect on the composition of the tear film and can cause irritation, especially, if the drops are used frequently. There are also liposomal eye sprays, which are sprayed on the eyelids of closed eyes and have proven to be effective in relieving the symptoms of dry eyes.

## How to correctly apply the eye drops

For the left eye, turn your head slightly to the left and lift your chin slightly, while looking in the mirror at your left eye. With your left hand, pull your left lower eyelid down and apply a lubricating eye drop to the outer area of your right lower eyelid with your right hand. Do the same for the right eye. (If you are strongly right- or left-hand dominant, you can hold the container of lubricating eyedrops for both eyes in your preferred hand).



### If the drops are administered to you by another person

Lean your head back and look up. Allow the lower lid to be pulled down slightly to create a small pouch so that one or two drops can be placed inside without the container coming into contact with your eyelid. This will prevent contamination. Blink a few times to allow the drops to spread evenly on the eye.

Via this link you can download this document as pdf:

<https://www.optometrischeaugenklinik.ch/download/>

Here, you will also find a video with instructions.

## Frequently asked questions

### How do I know that there are no preservatives in the eye drops?

You can be sure that they are preservative-free eye drops if they come in disposable single-use or pump containers. With a pump container, you pump each drop out of a sterile reservoir. It is therefore slightly larger than standard eyedrop vials.

### Can warm chamomile tea bags be used as a compress?

Contrary to the popular myth, chamomile dries out the sensitive skin of the eyelids and should therefore not be placed near the eyes. Chamomile can also cause allergic reactions.

### Why is a minimum duration of eight minutes important for the warm compresses?

The meibomian glands are located on the inside of the eyelid. Scientific research has shown that this duration is necessary for the moist warmth to penetrate to them and take effect.

### What is the relevance of eyelid margin hygiene for dry eyes?

Crust on the eyelids can contaminate the tear film. If the meibomian glands release too little or thickened secretion into the tear film, its quality is negatively affected directly by lipid deficiency. As a result, the tear film becomes thinner and also evaporates more quickly. In many cases, the eye reacts to this by producing tears, but these are thinner (as they have no oil) and can be blinked away more quickly or lead to eye-watering. Paradoxically, this is why people with dry eyes often complain of watery eyes.

What other measures can be taken to relieve the symptoms of dry eye?

Scientific studies have shown that omega-3 fatty acids, contained in fish (e.g. wild salmon, sardines, herring, shrimps), linseed oil, walnuts, and green vegetables, stimulate the secretion of the meibomian glands and have an anti-inflammatory effect on the lid margin. Since a permanent change in diet is considered very difficult, so linseed oil capsules can be taken as an alternative. However, you should consult your family doctor before starting to take these supplements regularly. In dry and/or air-conditioned rooms, a room humidifier can have a soothing effect. During prolonged computer work, the frequency of blinking is reduced, which also leads to tired and dry eyes. Allow yourself more short breaks and try to consciously blink more often.

Does cigarette smoke damage the tear film?

Es gilt als erwiesen, dass eine rauchige Umgebung die Qualität des Tränenfilms beeinträchtigt. Vor allem Kontaktlinsenträger klagen dann über gereizte und gerötete Augen.

What should be considered when applying eye make-up?

Cosmetic products can have a moisture-removing or even allergenic effect on the sensitive skin areas near the eyes. Likewise, a face cream that does not moisturize the skin sufficiently can cause dry eyes.