BLEPHARITIS

The causes of blepharitis are usually non-infectious. In unusual cases the cause may be due to bacterial, viral, chlamydial or fungal organisms. The most common cause is due to inflammation associated with skin problems or systemic disorders. The lids contain skin, eyelashes (cilia) and meibomian glands. At the base of the lashes (lash follicles) are special glands, which, along with the meibomian glands, secrete an oil or lipid material that, floats on the tear film and prevents evaporation of the tears. Blepharitis involving these glands can affect the oily layer of the tear film leading to increased evaporation and dry eye symptoms.

The common symptoms of blepharitis are mattering or mucus discharge from the eye upon awakening from sleep, redness and irritation of the lid margins, foreign body sensation and stinging, itching of the lids, blurred or decreased vision, and pain or discomfort with bright lights (photophobia). There may also be crusting of the lid margins and, in some cases of blepharitis, there may be sty or chalazion formation. Symptoms tend to be worse upon arising, improving over the next 4-5 hours and then worsening later in the day.

Other factors that are important in the cause of blepharitis include scalp and facial skin diseases such as seborrhea, rosacea, psoriasis or other eczema-like skin diseases.

EVALUATION

The physician will evaluate the eye and eyelids to determine what is causing the symptoms.

TREATMENT

The mainstay of treatment for blepharitis is lid hygiene. Oftentimes, there is dry, crusted material along the lid along with plugged meibomian glands. The application of heat helps to dissolve these secretions. This is accomplished by applying a warm washcloth to the closed eye for 5 minutes at bedtime and upon awakening. Massaging the eyes after applying the warm washcloth opens these glands and reduces the debris along the eyelids.

At bedtime, an ointment may be prescribed for you to apply in the eyes and to the lids. Before using the ointment, gently warm the closed tube under warm water or in your hand. This will make the ointment easier to apply. Ointment may be gently placed in the eye by gently pulling the lower lid down and depositing approximately 1/4 inch of the ointment on the inside of the lid. Alternatively, ointment may be placed on a cotton tipped applicator or a finger and rubbed into the lids.

Artificial tears, antibiotic and or steroid drops may be used if there is significant infection or inflammation. These drops should be used only as directed by the eye doctor. Steroid drops have the potential to cause cataracts and glaucoma, and are therefore used sparingly.

Often, treatment with oral tetracycline or doxycycline is required to clear up difficult cases of blepharitis or those cases that are associated with various skin conditions such as rosacea. These antibiotics also have anti-inflammatory properties, and often reduce the redness (inflammation) that accompanies the blepharitis. The usual dose is 1 tablet of doxycycline, 40 mg per day to 100 mg twice a day.

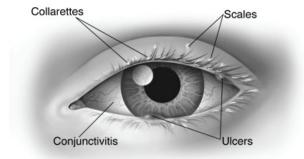
Doxycycline can occasionally cause an upset stomach or diarrhea. If this occurs, please let your physician know about it and usually a lower dosage taken less frequently will be recommended, often once a day, or even 3 times a week.

In addition, doxycycline will make your skin more likely to be burned from exposure to the sun. You should protect your exposed skin with a sunscreen, hat and sunglasses. Women may be more prone to yeast vaginitis while on doxycycline. Doxycycline may also reduce the effectiveness of birth control pills. Please consult your family physician if you are taking other oral medications to make certain that there are no problems with combining the medications with doxycycline.

Oral vitamin supplementation may be helpful in some cases of blepharitis associated with dry eye. Omega 3 fatty acids found in fish and flaxseed may be beneficial in some patients. Typically a commercial preparation "TheraTears Nutrition" is the easiest method of taking this supplement

Generally, it takes 1-3 months for blepharitis to improve. It often feels worse early in the treatment. During this period of time, you must be very consistent with the use of lid hygiene and carefully follow your doctor's orders regarding medications. As the condition is usually chronic, it is important that you do not give up hope or become discouraged with the course of treatment.

In conclusion, blepharitis can be a long-term problem that affects the lids of the eye. There are numerous causes for this and your eye doctor, after examining you, will be able to help you understand the cause of your condition. As the condition is chronic, it requires long-term treatment.



LID HYGIENE

- 1. Using a clean washcloth soaked in warm water, apply moist, warm compresses to the eyes for 5-10 minutes.
- 2. Rinse and massage the lashes with warm water.
- 3. Repeat lid hygiene at bedtime and upon first arising in the morning.

ARTIFICIAL TEARS

ARTIFICIAL TEARS WITH PRESERVATIVES

- Hypotears Tears Naturale
- · Visine Artificial Tears · Murine Artificial Tears
- Viva-drops

ARTIFICIAL TEARS WITH DISSIPATING PRESERVATIVES

GentealRefresh TearsAquifySootheSystaneOptive

ARTIFICIAL TEARS WITH NO PRESERVATIVES

Refresh Plus
Healon
Cellufresh
Hypotears Ointment
Bion Tears
Systane PF

ARTIFICIAL TEARS WITH NO PRESERVATIVES

(THICKER AND MORE GEL-LIKE)

Celluvisc
 Aqua Site
 Viscoat
 Refresh PM Ointment
 Hypotears Ointments
 Genteal Gel

• Refresh • Liquitears

TREATMENT PLAN OPTIONS

(ASK YOUR DOCTOR FOR SPECIFIC TREATMENTS RECOMMENDED FOR YOU) $% \begin{center} \end{center} \begin{center} \b$

-Lid Hygiene twice a day, morning and bedtime

-Artificial Tears 2 to 10 times a day

-Restasis drops 2 to 4 times a day

-Oral Vitamins (Theratears Nutrition)

Omega-3

Flax seed and fish oil

-Doxycycline, 40mg to 100 mg, once or twice a day

-Noritate ointment twice a day, morning and bedtime

-Nizoral 2% shampoo: Use foam from hair and place on eyelids

5 minutes, 3 times per week

-Pred Healon drops (steroid) 1 to 4 times a day

-Azasite drops at bedtime after Lid Hygiene

-Tobradex ointment (steroid) at bedtime after Lid Hygiene

-Erythromycin ointment at bedtime after Lid Hygiene

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MEDICATION				



From left: Sherman W. Reeves, MD, MPH; Elizabeth A. Davis, MD, FACS; David R. Hardten, MD, FACS; Richard L. Lindstrom, MD, William J. Lipham, MD, FACS; Thomas W. Samuelson, MD; and Patrcik J. Riedel, MD.

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Blepharitis is a common condition that involves an inflammation of the eyelids (blepharo-lid, itis-inflammation).

