

Blepharitis & Meibomian Gland Dysfunction

WHAT IS BLEPHARITIS?

Blepharitis is when the eyelid is inflamed. It happens a lot in children and adults, and can stick around for a while. Usually it is not serious but can make the eyes feel uncomfortable. Sometimes, it can even affect vision if it spreads to the clear front part of the eye (cornea).

WHAT IS MEIBOMIAN GLAND DYSFUNCTION?

Sometimes blepharitis can cause problems with the oil glands in the eyelids. This is called Meibomian gland dysfunction (MGD) and usually happens with blepharitis.

WHAT CAUSES BLEPHARITIS AND MGD?

Doctors don't fully know why blepharitis and MGD happen, but they often show up when there is too much inflammation and bacteria on the eyelids. They can also be seen with other skin problems like seborrheic dermatitis and rosacea.

HOW DO BLEPHARITIS AND MGD AFFECT THE EYES?

When the glands in the eyelids are blocked, they can stop making helpful oils for the eyes. In the early stages, people with MGD may not notice anything, but if left untreated, MGD can cause eye problems. MGD affects the eyes similar to blepharitis.

Signs and symptoms of MGD and blepharitis in the eyes include:

- Dryness
- Burning
- Itching
- Redness
- Stickiness or crusting
- Watering



- Blurry vision that comes and goes
- Foreign body sensation or the feeling that something (like dirt or sand) is in the eyes

Eyelid inflammation from MGD and blepharitis may also cause styes or chalazia on the eyelids. These different signs and symptoms may come about slowly and be hard to see.

People with blepharitis can have eyes that look red all the time, water a lot. are very sensitive to light.

CAN BLEPHARITIS AND MGD HARM VISION?

MGD and blepharitis can cause blurry vision that comes and goes. MGD does not usually harm vision.

Blepharitis can be more severe but usually does not harm vision unless it affects the cornea. If the cornea gets inflamed it can lead to problems like infections, ulcers, scars and abnormal blood vessels growing on the cornea. If these things happen to the cornea the vision can get very blurry.

HOW ARE BLEPHARITIS AND MGD DIAGNOSED?

Only an ophthalmologist can tell if you have blepharitis or MGD. They do a full eye exam and look for the signs like blocked glands on the edges of the eyelids, crusting of the eyelid edges, and other eye issues like eye redness and problems in the clear front part of the eye (cornea). See figure 1.

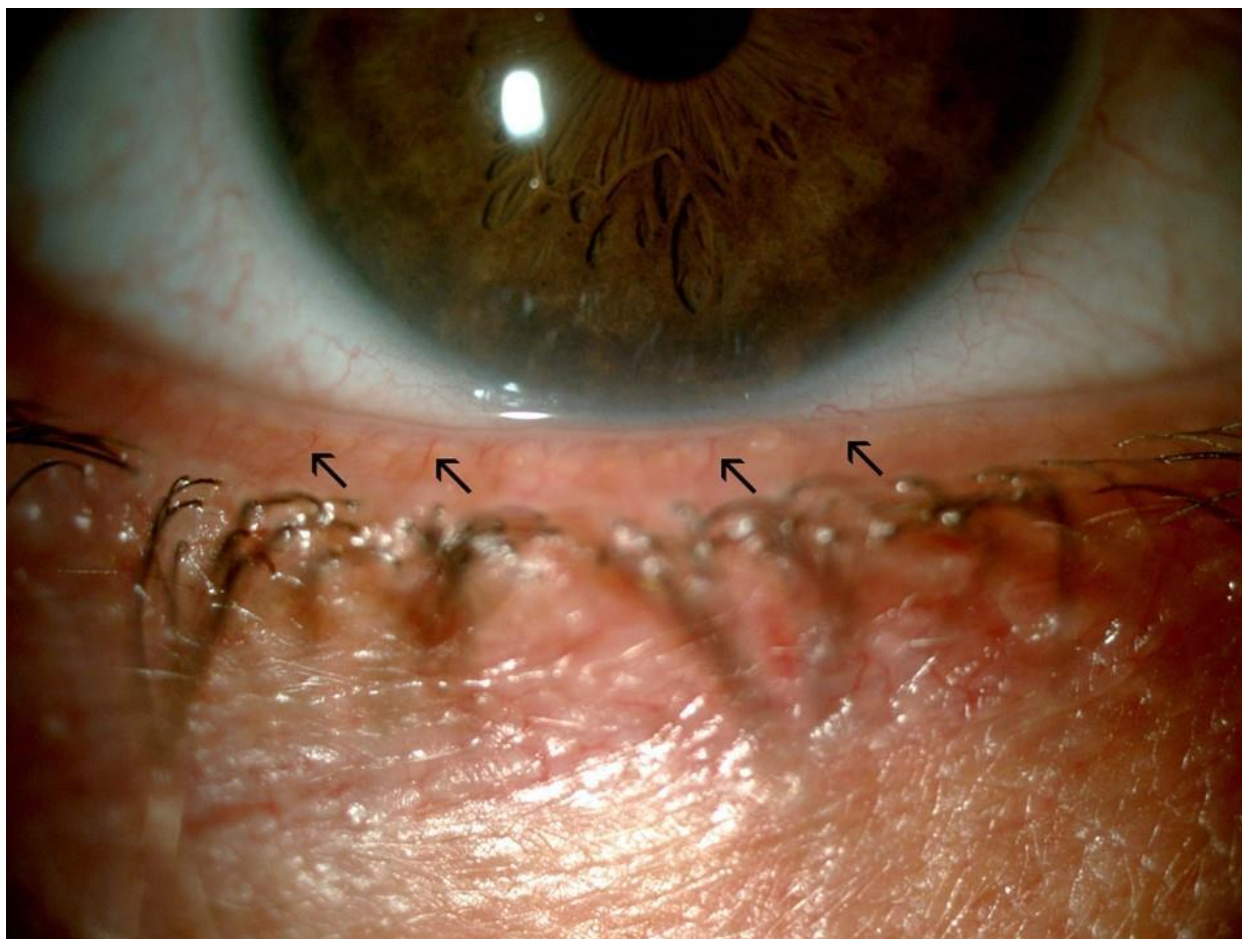


Figure 1. Photo of a lower eyelid with signs of MGD: Clogged oil glands, small blood vessels (arrows) by the oil glands and redness of the eye. These signs may be seen by the ophthalmologist

ARE BLEPHARITIS AND MGD CONTAGIOUS?

Blepharitis and MGD are not the same as [pink eye \(conjunctivitis\)](#). There is no proof that blepharitis or MGD can be passed from one person to another.

HOW ARE BLEPHARITIS AND MGD TREATED?

Blepharitis and MGD are hard to cure but it can be managed, there are different treatments that can help. These treatments include: warm compresses, eyelid massage, eyelid washes, antibiotic or steroid eye drops or creams, artificial tear eye drops, antibiotics by mouth and omega-3 fatty



acids (a kinds of vitamin). Your ophthalmologist may recommend one or more of these treatments depending on how bad the problem is. Each type of treatment is explained below.

1) WARM COMPRESSES

Applying heat to the eyelids helps oils flow better and unclogs blocked eyelid glands. Here are different ways you can do it:

- Use a warm washcloth: Gently place a clean, warm, wet washcloth on the closed eyes for about four to five minutes (or until the cloth gets cold). Make sure it's not too hot!
- Special eye masks: There are eye masks and pads with gel beads that can be warmed in the microwave and used for warm compresses.
- Other items at home: Some people do warm compresses with a warm wet tea bag, a still warm hard boiled egg, or a clean uncooked small potato that's been gently warmed in the microwave. All of these are safe to use, just be sure they are not too hot!
- Special heating tools: In recent years, there are electronic machines that heat the eyelids for longer periods of time. These machines are used in the ophthalmologist's office and can be helpful if regular at-home warm compress treatments do not help. Speak with your ophthalmologist if you have questions about this treatment.

Do compresses at least twice a day when the symptoms are bad. Doing compresses once a day to keep problems from coming back or getting worse. Since this is a long-term issue, you may need to do warm compresses for weeks to months.

2) EYELID MASSAGE

After doing warm compresses, you can gently massage the eyelids. Here's how:

- Light pressure: Use fingertips to put gentle pressure to the edge of the eyelid just above the eyelashes.
- Rolling motion: For the lower eyelid, roll the finger upward while looking up. For the upper eyelid, roll the finger downward while looking down.
- Thumb and pointer finger pressure: You can use pressure from the thumb and pointer finger to massage, gently squeeze, the eyelids.

For eyelid massages it is important to be gentle. Don't press too hard; it may cause pain and more eyelid irritation.



Younger children will need help with this. Older children and teenagers can do massage by themselves once they understand how to do it safely.

3) EYELID SCRUBS OR WASHES

Washing the eyelids helps remove oil, bacteria and crust blocking the oil glands. Here are different ways to do it:

- Tools: Use a Q-tip, your fingers, or a warm washcloth on the tips of your fingers to gently wipe along the eyelashes on both the top and bottom eyelids.
- Soap: Use a gentle soap like Cetaphil or CeraVe or dilute baby shampoo (a few drops in a small cup of water). It is important to use a soap won't hurt the eyes.

Eyelid scrubs may need to be done once a day or few times a week, depending on what your ophthalmologist recommends. Again, young children will need help with this but older children can often do it on their own.

4) OMEGA- 3 FATTY ACID: FLAX SEED and FISH OIL

Studies show that taking omega-3 fatty acids can help with MGD and blepharitis. Omega-3 fatty acids can help the meibomian glands make better oils to keep the eyes moisturized.

Omega-3 fatty acids are found in flax seed oil and fish oil.

For flax seed oil, try 1 teaspoon a day for toddlers or 1 tablespoon a day for older children. Mix it with juice, smoothies, or hot cereal. Some companies make “kid-friendly” fish oil and flax seed oil liquids and gummies (like Nordic Naturals and Barleans). If your child can take pills, there are also over the counter tablets/capsules.

Do not use flax seed oil if your child is on blood-thinning medication or blood-sugar lowering medication. Always talk with a doctor to make sure that omega-3 vitamins are safe.

5) MEDICINES

Antibiotics: Even though MGD and blepharitis are not eyelid infections, antibiotics can still help with the inflammation and bacteria that cause these problems. Your ophthalmologist may give antibiotic eye drops, antibiotic eye ointments/creams or antibiotics by mouth.

Steroids: If the cornea gets inflamed or the eyelids get badly inflamed, steroid eye drops or creams may be used.

Artificial tear eye drops: If the eyes are dry artificial tears eye drops can help.



Please be sure to follow the directions for these medicines as they may be different than what you have done for other health problems. In order to stay safe, speak with your ophthalmologist if you have any questions about medicines for blepharitis or MGD.

There are newer treatments like: intense pulsed light treatment, surgery, and immune based eye drops for MGD and blepharitis. Most people will need ongoing treatment to prevent eye problems from coming back. It is important to talk to your primary care physician and ophthalmologist to see what treatment options may be best.

WHERE CAN I FIND MORE INFORMATION ON MGD AND BLEPHARITIS?

More scientific information can be found at:

- <https://eyewiki.org/Blepharitis>
- [https://eyewiki.org/Meibomian_Gland_Dysfunction_\(MGD\)](https://eyewiki.org/Meibomian_Gland_Dysfunction_(MGD))

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