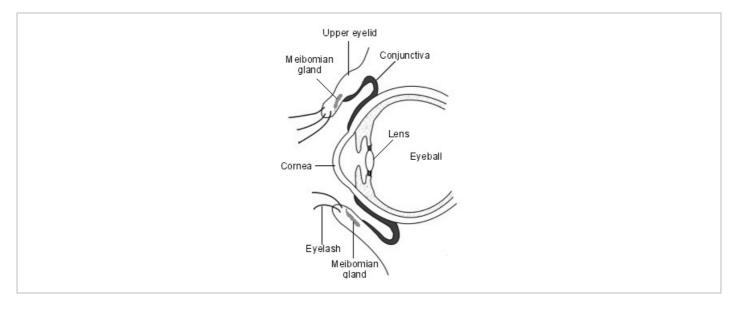


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Blepharitis

Blepharitis means inflammation of the eyelids. It causes the eyes to feel sore and gritty, and the eyelids may by puffy and red. It can be a troublesome and recurring condition with no one-off cure. However, once symptoms have improved, daily eyelid hygiene can usually keep symptoms to a minimum. Eyesight is rarely affected.

What is blepharitis?



Blepharitis is an inflammation, so although it can be caused by infections, it can also be caused by allergies and skin reactions. It usually affects the edges (margins) of the eyelids. Blepharitis is not usually serious but it may become an uncomfortable, irritating problem.

Blepharitis is typically persistent (chronic) and it usually affects both eyes.

What causes blepharitis?

There are three main types of blepharitis:

- Staphylococcal blepharitis caused by staphylococcal germs (bacteria).
- Seborrhoeic blepharitis.
- Meibomian blepharitis.

All three types can cause similar symptoms.

Staphylococcal blepharitis

This type of blepharitis is thought to be caused by a germ (bacterium) called staphylococcus. This bacterium is all around us in our environment, and typically lives in low numbers on our skin. Most often it does so without doing any harm; however, occasionally it can cause skin infections such as impetigo and inflamed acne. In some people this bacterium seems to make its way into the skin at the edge of the eyelids, causing blepharitis. Exactly why this happens only in some people is unclear.

Seborrhoeic blepharitis

Seborrhoeic blepharitis is closely associated with a skin condition called seborrhoeic dermatitis. In seborrhoeic dermatitis, the skin tends to be oily and can become scaly. It typically causes bad dandruff and sometimes a rash, commonly on the face and upper body. The underlying cause of seborrhoeic dermatitis is not clear. A type of yeast called *Malassezia furfur* is thought to be involved in triggering the condition in some people.

This type of blepharitis may be a reaction to the yeast, which lives in the oil (sebum) of human skin in most adults and which usually does no harm. Seborrhoeic dermatitis is not contagious - it is the reaction to the yeast which seems to cause the condition, rather than the yeast itself.

Meibomian blepharitis

This is also known as meibomian gland dysfunction. The meibomian glands in the eyelids lie just behind the eyelashes. There are about 25-30 meibomian glands on each upper and lower eyelid. They make a small amount of oily fluid which comes out on the inside of the eyelids next to the eye. This oily fluid forms the outer layer of the tear film which lubricates the front of the eye.

People with meibomian blepharitis are thought to have a slight problem with their meibomian glands and the fluid they produce. This may lead to eyelid inflammation. This also explains why people with meibomian blepharitis often have dry eyes, as the fluid they make may not have quite the right balance of oils needed to lubricate the eye.

Combinations of the above

In practice, it is often not possible to tell the difference between the different causes of blepharitis, and commonly more than one is present at the same time. Seborrhoeic blepharitis commonly occurs together with meibomian blepharitis. Once the skin is inflamed then it typically becomes infected with staphylococcus too. This means that whatever begins the condition, by the time you seek treatment your doctor may wish to treat all three possible causes.

What are the symptoms of blepharitis?

- · The main symptom is sore eyelids. Both eyes are usually affected.
- The eyes may feel gritty, itchy or as though they are burning.
- The eyelids may look inflamed or greasy.
- The eyes may become sticky with discharge. In particular, the eyelids may stick together in the morning.
- Sometimes tiny flakes or scales appear on the eyelids, which look like small flakes of dandruff. Crusts may develop at the base of eyelashes.
- One or more of the tiny glands of the eyelids (meibomian glands) may block and fill with an oily fluid.



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Symptoms often come and go. Typically, symptoms flare up from time to time; however, you may have long periods without any symptoms.

Three other conditions are commonly associated with blepharitis. They are:

- Dry eye syndrome (keratoconjunctivitis sicca).
- Seborrhoeic dermatitis described above.
- Rosacea. Symptoms include facial flushing, spots and central facial redness.

See the separate leaflets called Seborrhoeic Dermatitis, Dry Eyes and Rosacea for further information.

What are the possible complications of blepharitis?

In most cases, blepharitis is uncomfortable but not serious or sight-threatening. Complications are uncommon. They include:

- Chalazion (meibomian cyst). This is a painless swelling, most prominent on the *inside* of the eyelid. It is due to a blocked meibomian gland. Although it is painless, it may make the eyelid bulge and look a little unsightly. It can easily be treated. Sometimes a chalazion can become infected and painful. See the separate leaflet called Chalazion for further information.
- Stye. This is a painful infected swelling most prominent on the *outside* of the eyelid. It is due to an infection of the root (follicle) of an eyelash. See the separate leaflet called Stye for more information.
- Contact lens wearers may find that their lenses feel uncomfortable when they have a flare-up of blepharitis.
- Changes to the eyelashes can occur in long-standing cases. These include:
 - Loss of eyelashes (madarosis).
 - Misdirection of eyelashes towards the eye (trichiasis).
 - Loss of the colour of the eyelashes (poliosis).
- Inflammation of the front of the eye (conjunctivitis). This may cause a sore, red eye with discharge or watering. See the separate leaflet called Infective Conjunctivitis for more information.

- Conjunctival phlyctenules. These are tiny (1-3 mm), hard, yellowish-white lumps (nodules) surrounded by tiny blood vessels. They tend to occur on the lower part of the eye just below the transparent front part of the eye (the cornea). They are clumps of white blood cells that are responding to the presence of germs (bacteria).
- Inflammation of the cornea (keratitis). This complication is rare but serious as it can affect sight. See a doctor urgently if you develop eye pain (more than the irritation/grittiness of dry eye) or any loss of vision from the affected eye.
- Eyelid ulceration (and later scarring) occur rarely. This can cause the eyelid to turn inwards against the eyeball (entropion) or outwards (ectropion). See the separate leaflet called Ectropion.

What is the treatment for blepharitis?

There is no 'quick' one-off cure for blepharitis, as the inflammation tends to recur if you do not keep up with treatment. However, with regular treatment, symptoms can usually be eased and then kept to a minimum, and flare-ups can be prevented.

The aim of treatment is to control or manage blepharitis. Most of the treatment is done by you, rather than having prescriptions or treatments from your doctor. The main treatment is regular eyelid hygiene (see below). Other treatments that may be needed include antibiotics and artificial tear drops.

Regular eyelid hygiene

This is the most important part of treatment and prevention of blepharitis. The aim is to soothe the eyelids, unplug any blocked meibomian glands and clear out any stagnant oily secretions from these glands. The eyelids are cleaned and debris is removed. This is a daily routine that consists of three parts - warmth, massage and cleansing. Remove any contact lenses before following the routine.

Warmth

The purpose of warmth is to soften the skin and any crusts attached to the eyelids. It also allows the oily secretions made by the meibomian glands to flow more freely, as warmth makes oils more runny. Therefore, warmth helps to unplug any blocked glands and allow the oily secretions to flow more readily. Warmth applied to the eyelids for five to ten minutes is sufficient to do this.

The traditional method is to press on the eyelids gently with a flannel (facecloth) soaked in very warm water for 5-10 minutes. If the flannel cools, keep re-warming it in the warm water.

A popular alternative is to use a specially designed reusable heat bag which you place over your eyes for about five minutes. There are a number of such bags available, which you can buy from some opticians or online. The heat bags are warmed in a microwave. The advantage of a heat bag over a hot flannel is that the heat is retained for many minutes and so it keeps a constant warmth over the eyes. You can simply lie down and relax for five to ten minutes with the bag placed over your eyes. (A hot flannel usually cools quickly.)

Massage

Massage the eyelids immediately after applying the warmth. Massaging helps to push out the oily fluid from the tiny meibomian glands. To massage the eyelids:

- Massage along the length of the upper and lower eyelids towards the eye. That is, sweeping downwards when moving along the upper eyelid, and upwards when moving along the lower eyelid. The idea is that you are moving the oily secretions towards the edge of the eyelid so that they can come out of the glands.
- Repeat this massage action 5 to 10 times over about 30 seconds immediately following the warming.
- Massaging should neither to be too gentle nor too firm. It should be relatively comfortable and you should not press hard enough to actually hurt your eyeball under the closed lids.
- Always massage with the eyes shut.

Clean

After warmth and massage, clean the eyelids. This can be done by any of the following ways. There is a lack of research studies to say which is the best method, so use whatever you find most useful:

- The traditional way is to use a cotton wool bud that has been dipped in diluted baby shampoo. Just add a few drops of baby shampoo to a small cup of warm water so that the ratio of water to shampoo is about 10:1. Squeeze out excess liquid from the cotton bud to prevent drips getting into your eyes, which may irritate. In particular, try to clean off any crusts at the base of the eyelids. After cleaning the eyelids with the cotton wool bud, wash off the shampoo from the eyelids, using a flannel or cloth.
- Some people recommend using sodium bicarbonate (a teaspoonful in a cup of cooled water that has recently been boiled). This is applied using a clean cloth or cotton wool bud. This may cause irritation to the eyes in some people.
- Some people recommend using special eyelid scrubs that you can buy at some opticians/optometrists.
- Some people say that simply washing the eyelids with cooled water that has recently been boiled (or preserved water for contact lens wearers) is probably as effective as using water with added sodium bicarbonate or baby shampoo.

You should do the above routine - warmth, massage, clean - at least twice a day until symptoms settle. When the symptoms have eased, keep doing this routine once a day, every day, to prevent further flare-ups. If you are prone to blepharitis it is best to think of this as part of your daily routine - just like brushing your teeth. This is the best way to keep symptoms away, or to a minimum.

Artificial tear drops

Blepharitis is often associated with dry eyes. This is because the tear film is produced by the meibomian glands. So if they are blocked or not working well, your eyes will not be as well lubricated. Therefore, artificial tear drops may help ease symptoms. These come as eye drops and gels. You can buy them at pharmacies or get them on prescription. You may need to use them regularly to keep symptoms away.

There are several types of artificial tear drops and gels with different ingredients. Occasionally, some people find one type may irritate. A change to a different preparation may help if the first does not suit. Preservative-free eyedrops are least likely to cause irritation.

Antibiotic treatments

If your blepharitis doesn't respond to regular cleaning, you may be prescribed a course of antibiotic ointments, creams or eye drops (topical antibiotics).

Antibiotic eye ointment or drops should be rubbed very gently along the edge of the eyelid (not the eye) after cleaning the eyelid in the way described above. Apply them with clean fingers or a cotton bud. They are usually used several times a day to start with, and eventually once a day, for about six weeks.

You should stop wearing contact lenses when using antibiotic eye drops, as they can affect the lenses, which can also trap drops behind them which can irritate your eye. If using more than one type of eye drop, leave at least five minutes between applying them.

Oral antibiotics (tablets), taken once or twice a day, are occasionally prescribed if other treatments fail. You will normally be advised to use these for three months, and sometimes for longer. Doxycycline is most often used, although this antibiotic can cause a rash in some people if they are exposed to the sun, and it's also advisable to avoid sunbeds if taking it. Doxycycline and some similar antibiotics should not be taken if you are pregnant or breastfeeding, and is avoided in children under 12.

Further advice

Wearing eye make-up, particularly eyeliner, may make symptoms worse. It is best to avoid eyeliner, particularly during a flare-up. It's also sensible to discard any liquid eye make-up you were using when the condition developed.

Rubbing the eyelids will often make inflammation worse, as it will make your eyelids swell more and make them more inflamed.

Some studies have suggested that omega-3 oils, found in oily fish, may improve symptoms for some people with dry eye syndrome and blepharitis. Omega-3 supplements can be purchased in health food shops. There is no set dose for blepharitis so they should be taken at the doses recommended by the manufacturer.

Rather than taking the oil, you could increase your consumption of oily fish (although if you are pregnant, or trying to become pregnant, you should not eat more than two portions of oily fish per week. This is because it may contain substances such as mercury which can be harmful to your unborn baby).

If you also have seborrhoeic dermatitis, rosacea or dry eye syndrome, treating these conditions will also help to ease symptoms of blepharitis.

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