

# Eyelid Problems and Watery Eyes

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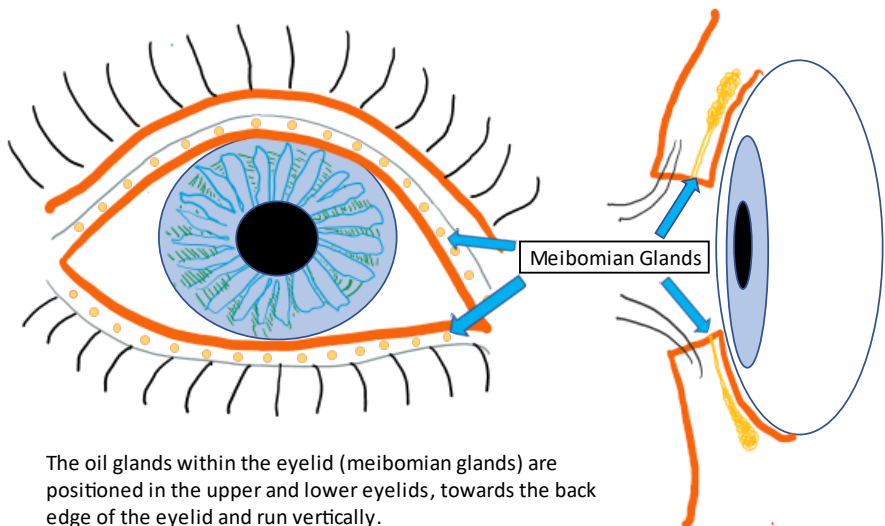
## **Blepharitis**

Blepharitis is an inflammation affecting the meibomian oil glands in the eye lid. It can occur at any age and when present is often a problem for many months at a time.

Blepharitis can cause a variety of problems such as grittiness, itching of the eyelids, burry vision, eyelid swelling and cysts, corneal inflammation and scarring and in turning eyelashes. The intensity of symptoms is very variable.

It is not known what triggers blepharitis. It is thought to be caused by a combination of an increase in production of oil from the meibomian glands, which are situated at the back of the eye lids, interacting with the bacteria which normally live on the edges of the eyelids. The oil is often more viscous than normal, and is broken down by the bacteria into irritating and inflammatory by-products. There is also evidence to suggest that Demodex mites, that can live in the roots of eyelashes, play a role in adding to the inflammation in some patients.

The signs of blepharitis include: crusting around the eyelashes (either oily deposits or dry scales, like dandruff), redness along the edge of the eyelids, eyelid swellings, tiny white or yellow spots along the edge of the eyelids, redness of the white of the eyes, grey-white patches on the front of the eye.



The oil glands within the eyelid (meibomian glands) are positioned in the upper and lower eyelids, towards the back edge of the eyelid and run vertically.

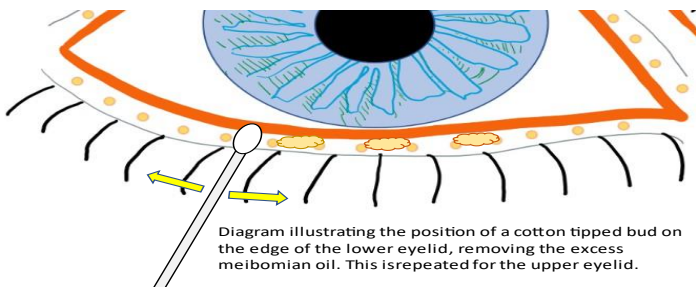
## Blepharitis Treatment

There are a number of measures that improve the symptoms of blepharitis. However, it is important to appreciate that blepharitis is not an infection that will settle after a couple of weeks of antibiotic treatment. Improvement can take weeks, backed up with months of maintenance treatment.

The treatments can be broken down into first line remedies that you can use at home and second line treatments that require a healthcare specialists opinion.

## Homebased Treatments

Treatment	Instructions
<p><b>Warm compresses</b> (These can range from cotton wool pads soaked in warm, boiled water or microwavable eyelid bean bags or gel pads)</p>	<p>Warm compresses applied to the eyelids are usually soothing but more importantly they liquify the meibomian gland oil in the eyelid and on the eyelid edge, making it easier to remove. The prolonged heat produced by eyelid bean bags or gel pads is more effective than warm water pads.</p>
<p><b>Eyelid Massage</b></p>	<p>By massaging the eyelids in a vertical and horizontal direction, the meibomian oil can be gently forced out of the glands and then removed from the eyelid.</p>
<p><b>Eyelid scrubs</b></p>	<p>Once the meibomian oil has collected along the eyelid edge, then it should be removed by using a blepharitis wipe or blepharitis solution applied with a cotton tipped bud.</p>
<p><b>Omega 3</b></p>	<p>An omega 3 supplement will reduced the amount and viscosity of the oil produced by the meibomian glands</p>
<p><b>Artificial tears (drops for dry eyes)</b></p>	<p>Artificial tear drops bought from an optician or chemist are important to treat dry eyes caused by blepharitis. Drops should be used at least 3-4 times during the day and a lubricating gel used at night time.</p>



## Medical Treatments

<b>Treatment</b>	<b>Indication</b>
Antibiotic eye drops and ointment	By reducing the number of bacteria on the eyelids, the severity of the blepharitis is reduced. Antibiotic drops are often used 4 times a day and antibiotic cream at night time, both for at least two weeks.
Steroid eye drops and ointment	Steroid eye drops and ointment reduce the inflammation associated with blepharitis. They must be used sparingly for fixed periods of time as they can cause a rise in the pressure inside the eye. They are often used for 2-4 weeks.
Antibiotic tables	Tetracycline antibiotics, taken as tablets, can reduce the amount of meibomian oil produced and severity of eyelid inflammation.
Cyst drainage	Chronic cysts associated with blepharitis can be drained with a small operation. Surgery is particularly useful if the cysts have been present for two to three months and show no sign of shrinking on their own.
Steroid eyelid injections	These can be useful for areas of eyelid which are chronically inflamed.
Meibomian duct probing	With this treatment a tiny probe is passed along the meibomian gland to try to unblock it.

## Commercially Available Treatments

Treatment	Indication
IPL Laser treatment	There is evidence that IPL laser can treat demodex mites that can cause eyelid inflammation
Blephasteam goggles	These are goggles that heat and massage the eyelids to reduce the amount of meibomian oil available to cause eyelid inflammation.

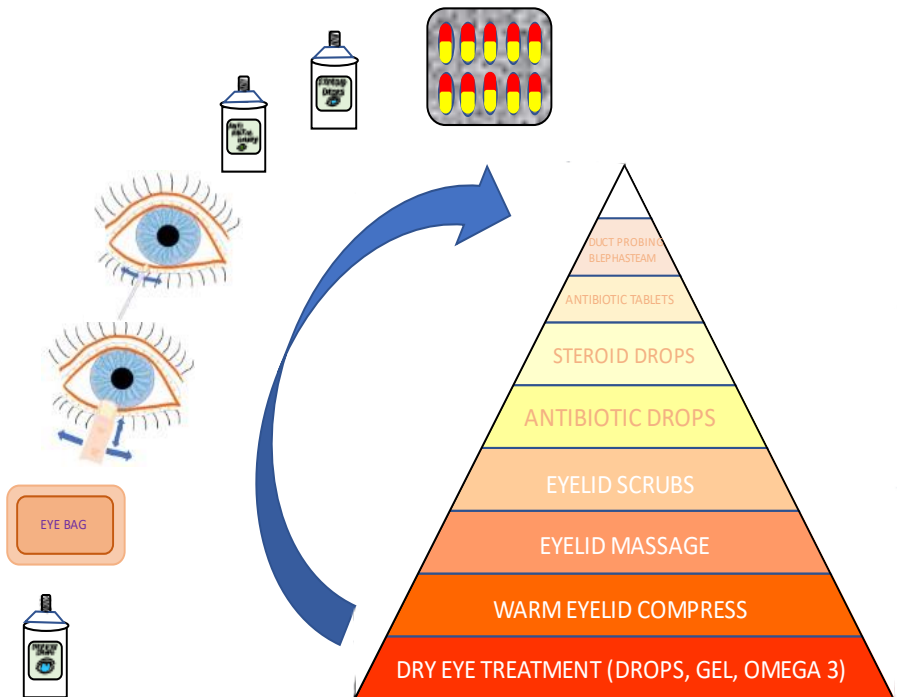
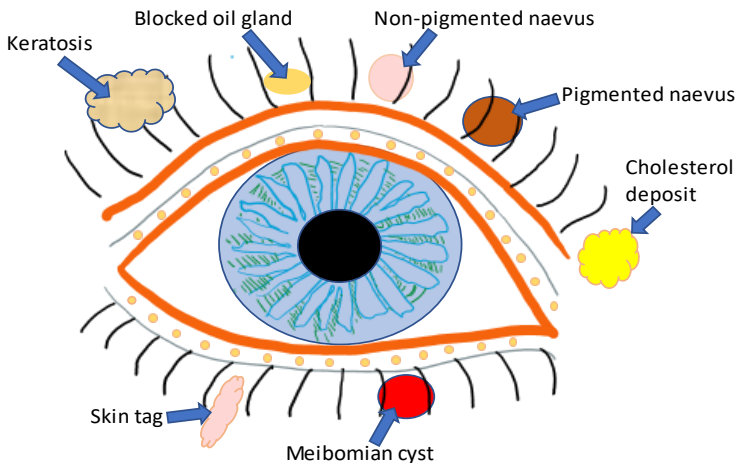


Diagram illustrating the stepwise pyramid of treatment for blepharitis

## Eyelid Lumps and Bumps

Lumps and bumps are very common around the eyelids. They are caused by many different conditions, such as blocked oil or sweat glands, skin tags, sun damage to the skin, and occasionally due to cancerous changes in the skin.

Many lumps can be removed in a fifteen minute procedure, using a local anaesthetic to numb the skin. Often, the lump is sent off for analysis to make sure there are no abnormal cells within it. Usually an eyepatch is used to reduce the amount of swelling and bruising after surgery and once removed, after a few hours, antibiotic cream is used twice a day for five days. If the lump has been sent for analysis, the result will take at least a week to be processed.



Examples of commonly seen eyelid lumps



## Entropion & Ectropion

An entropion is when an eyelid rolls inwards, and the eyelashes are pushed into the eye, causing irritation. This happens most commonly on the lower lid but can affect the upper eyelid as well.

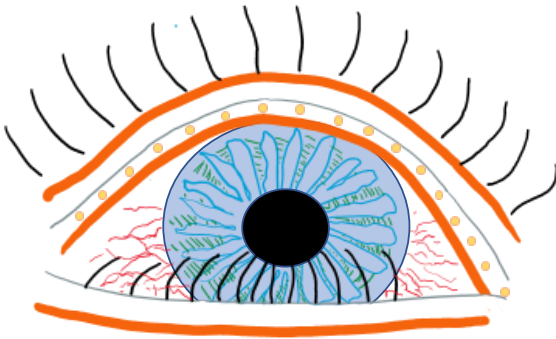
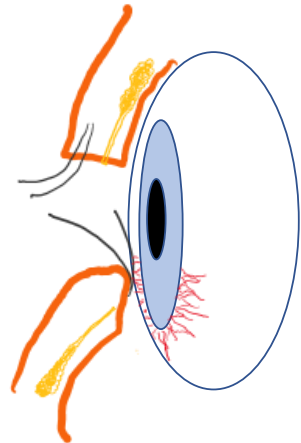


Diagram of entropion of the lower eyelid. The eyelid rolls inwards and the eyelashes scratch and injure the cornea



An ectropion is when the lower eyelid drops down and turns outwards, exposing the delicate back surface (conjunctiva) of the eyelid to the air. This leads to dryness, irritation, wateriness and a sticky discharge.

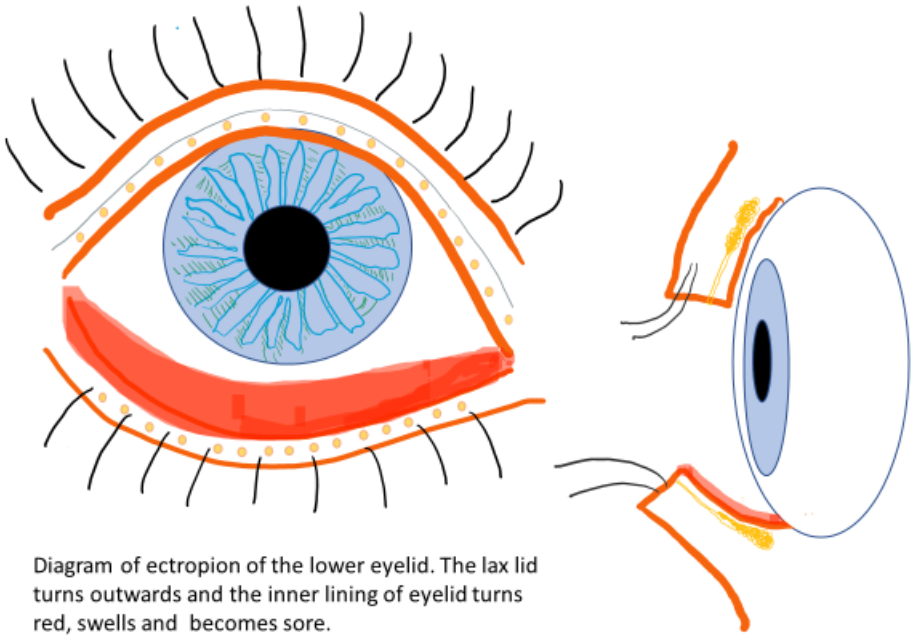


Diagram of ectropion of the lower eyelid. The lax lid turns outwards and the inner lining of eyelid turns red, swells and becomes sore.

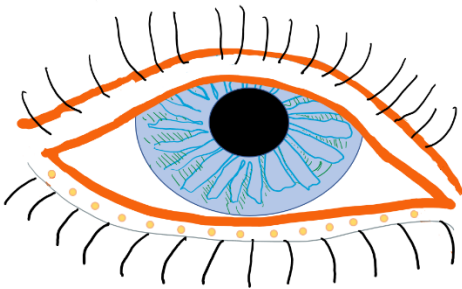
In both conditions, the cause is often related to laxity of the eyelid. Surgery is usually necessary to tighten and reposition the eyelid.

## Eyelid Ptosis

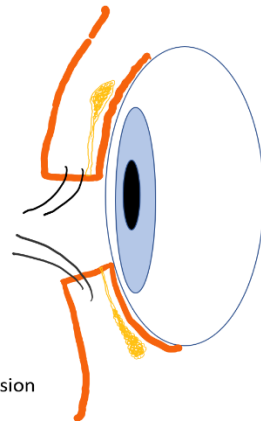
Ptosis means drooping of the upper eyelid. Sometimes it can be difficult to tell whether the eye looks closed because the eyelid is low or because the skin above the eyelid is hanging down. Both conditions can be present at the same time.

Ptosis is usually corrected with surgery. However, in some cases, if someone does not want an operation, the eyelids can be propped up with a special metal loop fixed behind spectacle lenses. The lid drops down once the glasses are taken off.

Surgery involves making a cut on the surface of the eyelid (or sometimes underneath the eyelid), and the eyelid muscle tendon is found and tightened. There are different types of operation for ptosis, depending on the strength of the eyelid muscle. The surgery is usually carried out with local anaesthetic with or without a sedative.

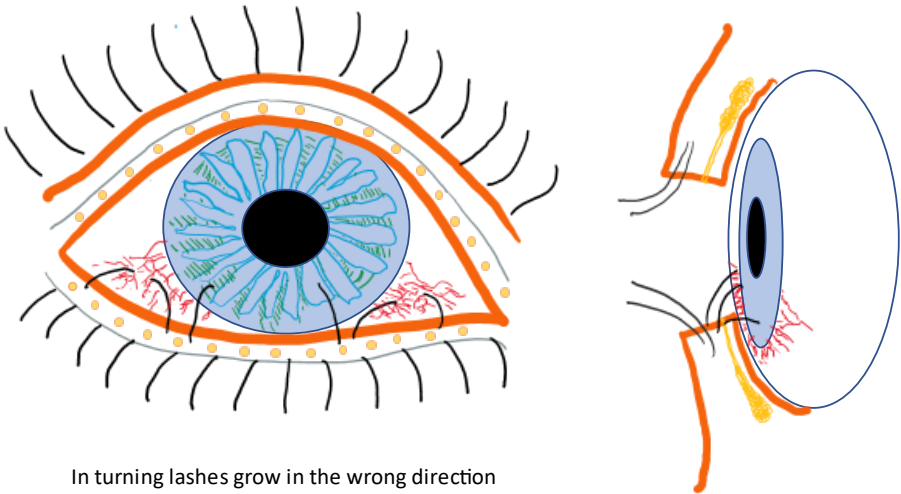


Ptosis of the upper eyelid which droops down reducing the vision



## In Turning Eyelashes

In turning eyelashes are very uncomfortable, as the tips of the eyelashes constantly scratch the surface of the eye. The lashes can be pulled out (epilated) which gives instant relief, but they soon grow back. More permanent treatments aim to stop the root of the eyelashes from growing a new lash. Treatment options include electrolysis, laser treatment, cryotherapy, excision of lashes and surgery to turn to edge of the eyelid forwards which pulls the lashes away from the eye.



In turning lashes grow in the wrong direction

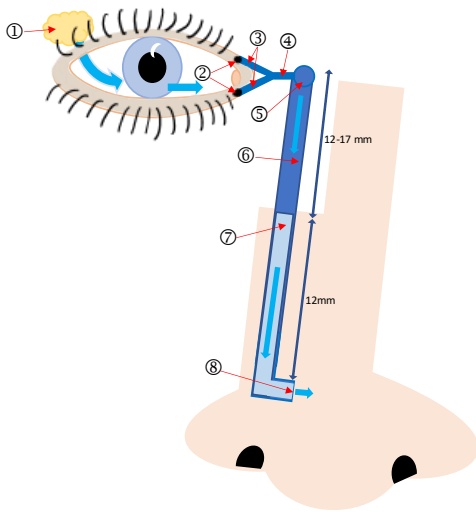
## **Watery Eyes**

Watery eyes are a very common problem which can be caused by many factors. The tear (lacrimal) gland will increase the volume of tears released if something irritates the eye, such as hay fever or an ingrowing eyelash.

The position of the lower lid can also affect tear drainage. A lower lid which is lax and hangs down will prevent the tears from draining properly.

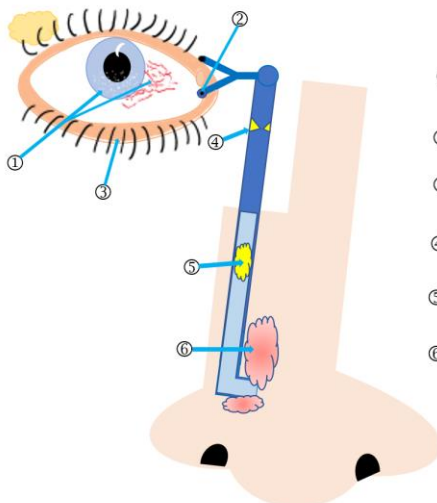
Tears drain from the lower lid into the nose. This route starts at the punctum of the eyelid, a very small hole at inner portion of the upper and lower eyelids. The punctum leads into the canaliculus, a very thin tube, which is about 8mm long. This then drains into the nasolacrimal duct, a wider tube which travels vertically from the corner of the eye to the bottom of the nose.

There is potential for narrowing or blockage at many points along this drainage tube. Commonly, the punctum is stenosed and surgery to enlarge it can be beneficial. If the main portion of the nasolacrimal duct is blocked, this may require a DCR operation to unblock it. Lastly, if there is any nasal congestion or nasal bony abnormalities, these may also need to be treated.



- ① Lacrimal gland (where tears are produced).
- ② Punctae (the holes through which tears enter the lacrimal drainage system), 0.2-0.3 mm diameter.
- ③ Canaliculi (narrow tubes in the upper and lower eyelids) 8mm in length.
- ④ Common canaliculus where the upper and lower canaliculi join together and joins the lacrimal sac.
- ⑤ Lacrimal sac.
- ⑥ Nasolacrimal duct, which lies against the outside of the nasal bone.
- ⑦ The nasolacrimal duct travels through the bone of the nose.
- ⑧ The nasolacrimal duct enters the bottom of the nose.

A diagram showing the pathway of tears on to the eye and out through the nasolacrimal duct



- ① Increased tearing caused by dry eye (gritty) – treat with intensive lubricating drops or allergy (itchy) – treat with anti-histamine eye drops.
- ② Stenosed or occluded lacrimal punctum- treat with dilatation and punctoplasty surgery.
- ③ Laxity of the lower lid (ectropion) makes it harder for tears to reach the punctum – treat with a lid tightening operation.
- ④ Stenosis on the nasolacrimal duct – initial treatment is with nasal decongestant and steroid eye drops. If no improvement consider a lacrimal stent
- ⑤ Complete blockage of the nasolacrimal duct – treat with a DCR operation
- ⑥ Congestion of the nasal lining blocking the exit of the nasolacrimal duct into the nose- treat with nasal decongestants and Neilmed sinus rinse

A diagram showing the sequence of treatment considerations for a watery eye

## Blepharospasm

Blepharospasm refers to the uncontrollable twitching that can affect the eyelids. Sometimes the twitching is very subtle and is not visible to other people. If it happens infrequently then no treatment may be necessary. At the other extreme, the twitching may be so severe, that the eyes are intermittently closed. This more severe form can be very debilitating affecting all aspects of life. The treatment of blepharospasm is botulinum toxin. Tiny amounts of botulinum toxin injected into the eyelids can reduce or completely stop the spasming, allowing normal life to resume. Usually, the injections are repeated every 3-4 months.

Although botulinum toxin can cause botulism, a very serious infection, the doses used to treat the eyelids are tiny and therefore very safe. There can be side effects from botulinum toxin injections, but these are uncommon and temporary and include double vision and drooping of the upper eyelid.



## **Skin Cancers Around the Eyelids**

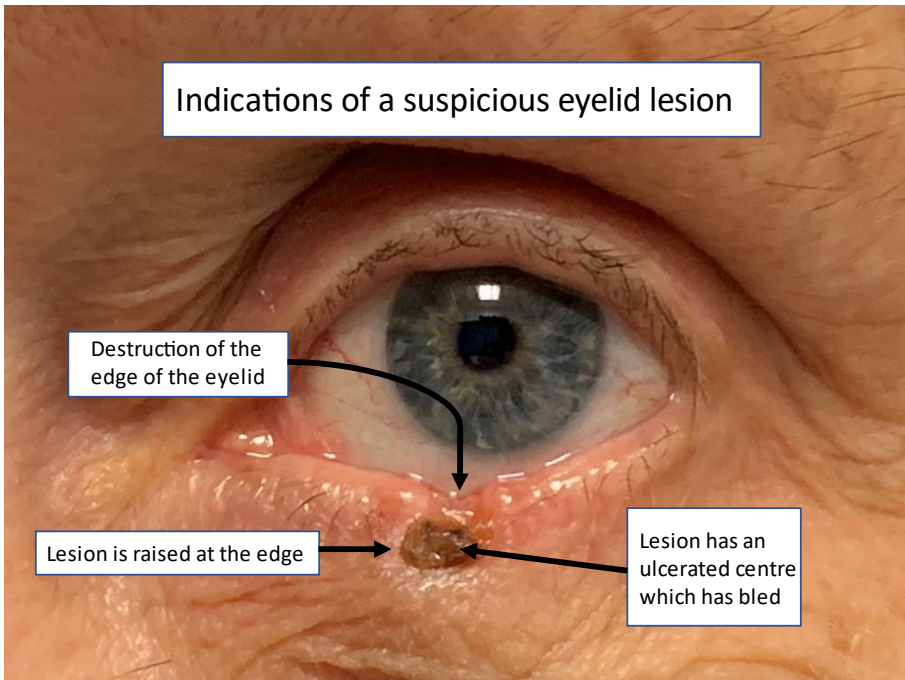
The eyelids are a common place to see skin cancers and this is thought to be partly due to the exposure of the face to high degrees of sun light.

The commonest skin cancers of this area are basal cell carcinomas (BCC) and squamous cell carcinomas (SCC). They often appear as raised, pink lumps which slowly increase in size. As they are not painful, they are often ignored for long periods of time. As they get bigger the surface layer of cells sometimes breaks down and they can bleed.

It is not always obvious if a new skin lump is a skin cancer or just a skin tag. The best way to be sure is to take a small sample of the lump (a skin biopsy) and to send this off for laboratory analysis. The biopsy can often be carried out as a quick outpatient procedure.





A frequently asked question is *'Why isn't a lump removed in one stage rather than carrying out a biopsy on part of the lump?'* The reason is that if the biopsy confirms that a skin lump is non cancerous, then there is no need for further treatment. However, if it is a cancerous BCC or SCC then not only does the visible lump need to be removed, but also a margin of normal looking skin around the lump, with the aim of removing the whole lesion.

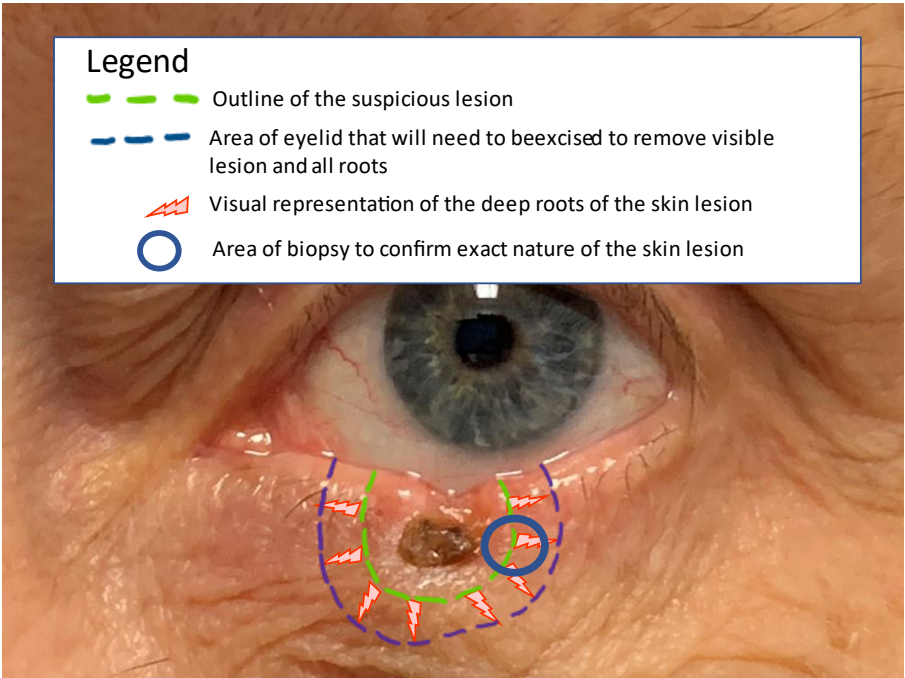




Skin tumours are usually removed surgically, less commonly they are treated with cryotherapy (freezing treatment), radiotherapy or topical chemotherapy creams. The advantage of surgery is that the piece of skin that is removed can be analysed in the laboratory to make sure that all the cancerous cells have been removed. Sometimes a second operation is needed if some cancerous cells have been left behind.

## Legend

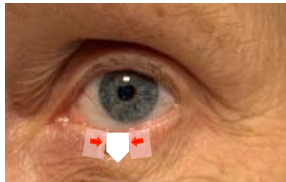
-  Outline of the suspicious lesion
-  Area of eyelid that will need to be excised to remove visible lesion and all roots
-  Visual representation of the deep roots of the skin lesion
-  Area of biopsy to confirm exact nature of the skin lesion



Once the lesion has been removed the gap between the eyelids will need to be repaired. The technique used depends on the size of the lesion removed and the laxity of the eyelid

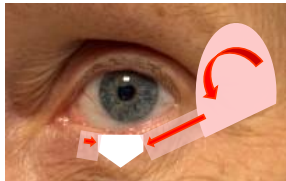
### SMALL LESION & LAX LID

The two edges are lax enough that they can be brought together



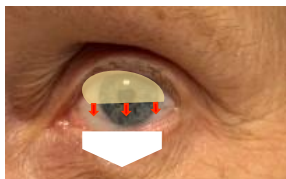
### MODERATELY LARGE LESION & MODERATELY LAX LID

The two edges cannot be brought together without freeing up the outer half of the eyelid by creating a skin flap



### LARGE LESION & LITTLE LID LAXITY

This large gap in the eyelid is repaired by using a flap from the undersurface of the upper eyelid and this is covered with a skin graft



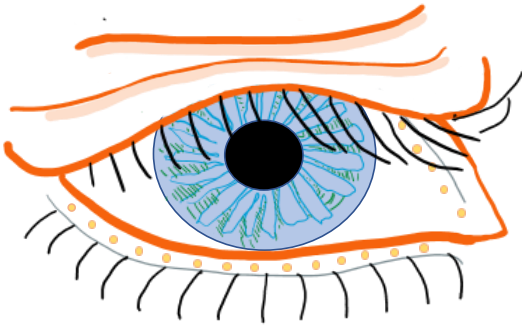
## **Blepharoplasty**

Blepharoplasty refers to the removal of excess skin from the upper eyelids, the lower eyelids or both. As we all get older, the thin skin around the eyelids stretches and starts to hang down. If the upper eyelid skin hangs over the edge of the eyelid, it can restrict the vision. Excess lower lid skin can form folds or less commonly bags (festoons).

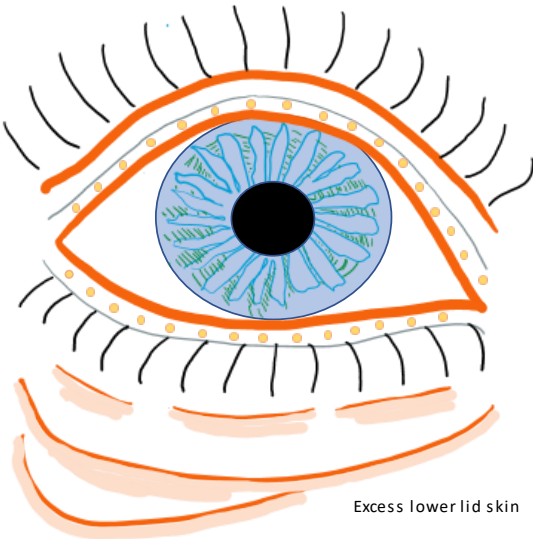
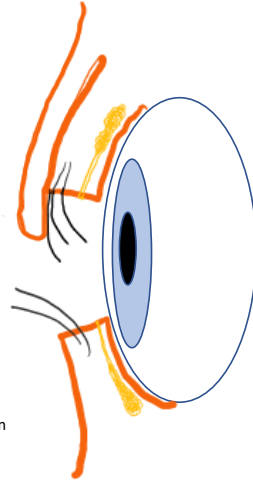
By removing the excess skin, the eyelids look smoother and more youthful. At the same time, any excess fatty tissue which causes bulges, can be sculpted or repositioned.

Blepharoplasty of the upper eyelids can be carried out under local anaesthetic but if surgery is being carried out on the lower lids, it is usually more comfortable to supplement the local anaesthetic with intravenous sedation or a general anaesthetic.

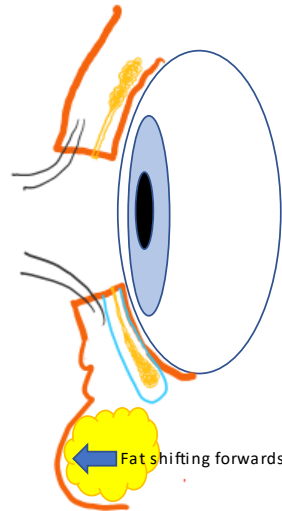
It is important that the excess skin is removed conservatively, as excessive skin removal of the upper eyelids can lead to difficulty in closing the eyes and excessive skin removal of the lower lids can lead to lower lid retraction or drooping. Likewise, if any fatty bulges are reduced, this should not be done aggressively otherwise the overlying skin will curve inwards giving a hollowed out appearance.



Excess upper eyelid skin



Excess lower lid skin



## Brow Lift

When the eyebrow is too low, it pushes down the eyelid skin, causing excessive hooding of the eye. The eyebrow can be raised with surgery or botulinum toxin.

Botulinum toxin can be injected into the skin around the eyebrow. It relaxes the muscles which pull the eyebrow down causing it to elevate. The injections have to be repeated every three to four months but are quick and relatively painless.

Surgery to raise the eyebrows can give a greater degree of lift but is associated with a significant post operatively recovery time

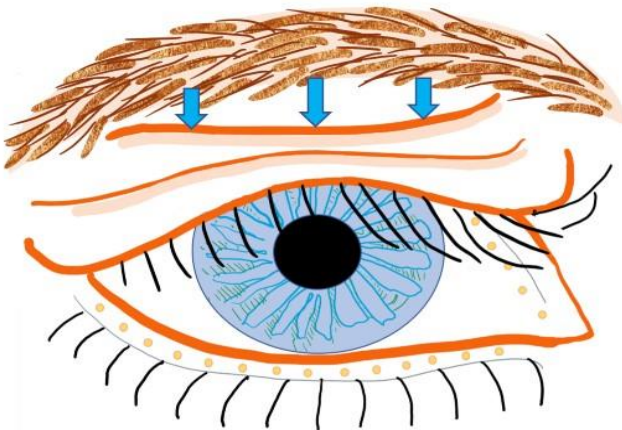


Diagram showing that the low brow pushes the upper eyelid skin downwards, which can affect the vision.

## Check List

Remember make us aware if any of your answers to these questions is 'YES' to help reduce the chance of surgical complications.

Question	Circle one choice	
Have you been told you have a weak or lazy eye?	YES	NO
Do you have glaucoma?	YES	NO
Do you have diabetes?	YES	NO
Has your skin ever scarred badly or have you had a keloid scar?	YES	NO
Do you normally wear contact lenses? (If yes, please remove before your clinic appointment)	YES	NO
Do you take blood thinning medication?	YES	NO
Do you take supplements (including Cumin, garlic, ginger, gingko, turmeric, vitamins C&E)?	YES	NO
Do you have any allergies?	YES	NO
Do you suffer from claustrophobia?	YES	NO
Can you lie flat on your back?	YES	NO

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