



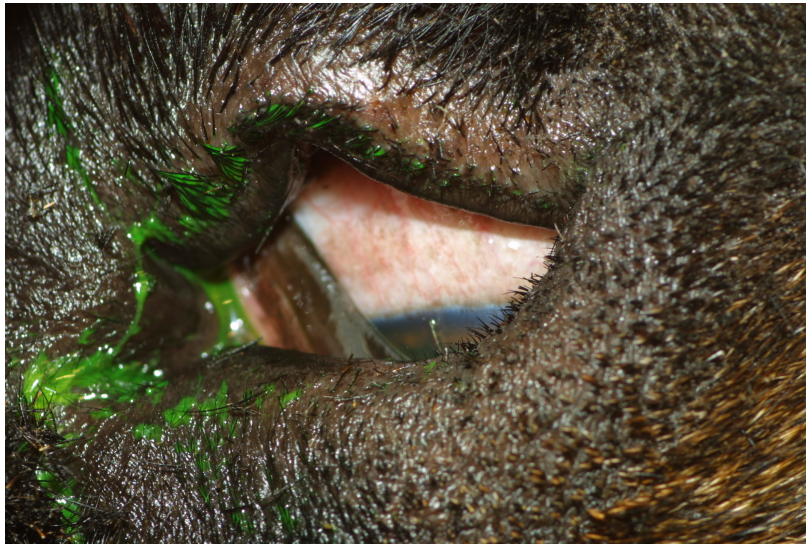
Lid and Lash Conditions

Eyelid Diseases

The most common eyelid diseases are entropion, ectropion and facial droop.

Entropion

Entropion means a turning in of the lids. This is a common complaint in young dogs but can sometimes affect older dogs and cats as well. Most cases in young dogs affect the lower lids, but the upper lid can become affected in later life in some breeds such as Cocker Spaniels and Bloodhounds.



Entropion

Some breeds such as Shar Peis, Chows, Rottweillers and Mastiffs can have very complex entropion leading to defects in both upper and lower lids.



A Shar Pei with severe upper and lower lid entropion

Entropion is painful and can be potentially blinding. The rolling in of the lid leads to hair coming into contact with the cornea, leading to pain, ulceration and scarring (which can affect vision). In severe cases this can even lead to perforation of the eye.

There are many causes of entropion. It can be primary or secondary to other problems affecting the lids (such as ectopic cilia, distichiasis etc. - see below). Some possible causes include the lid being too long, the lid being too tight, instability of the lateral canthus (outer cornea of the eyelids), misdirection of the lateral canthal tendon, brachycephalic anatomy (big eyes and short nose - e.g. Pekingese, Pugs, Shih Tsus, Persian cats etc.), diamond eye defects, loose or too much skin, facial droop etc. Often these cases are referred to a veterinary ophthalmologist for proper assessment and treatment to provide the best outcome.

Entropion requires surgical correction. There are many different procedures available each designed to address the different causes of the entropion. It is vital that the underlying cause of the entropion is correctly diagnosed to allow the most appropriate surgery to be performed.

Ectropion

Ectropion is turning out of the lids. This most commonly affects loose skinned breeds such as St Bernards, Bloodhounds, Cocker Spaniels,

Mastiffs etc. In this condition the eyelid does not fit the eyeball very well. Usually this does not lead to severe eye problems but the rolling out of the lower lid can lead to exposure of the conjunctiva and the cornea. This can result in the accumulation of discharge in the eye and in some cases corneal disease.



Ectropion

Ectropion can be combined with entropion (often termed “diamond eye”) which can lead to blinding corneal disease. These are very complicated cases requiring complex surgery and are generally referred to a specialist for proper attention.



Diamond eye in a basset: pre-operative appearance



Diamond eye in a basset: post-operative appearance

Facial droop

Facial droop affects mainly Cocker Spaniels, Bloodhounds and Shar Peis, but sometimes other breeds can be affected. In these cases the upper forehead skin sags as the patient gets older, leading to the upper eyelids covering the eyeball (leading to poor vision) and upper eyelid entropion and trichiasis (see below).

These cases require a face lift surgery termed cervical rhytidectomy. A large amount of redundant skin is removed from the neck and the skin of the head is moved backwards and anchored in place. The surgery is demanding but the results are very effective.



Severe facial droop in a Cocker Spaniel



A close up of the right eye



Demonstrating the amount of redundant skin that needs to be removed.



10 days post-operatively

Eyelash Diseases

Eyelash diseases are commonly seen in the dog but are uncommon in cats. In dogs they can be a cause of chronic irritation and can lead to permanent scarring and reduction in vision.

Normal lashes are directed away from the cornea and thus do not cause irritation to the eye, but sometimes hairs around the eye can be misdirected leading to irritation, or sometimes abnormal hairs can grow, leading to irritation.

The three main types of eyelash diseases are trichiasis, distichiasis, and ectopic cilia.

Trichiasis



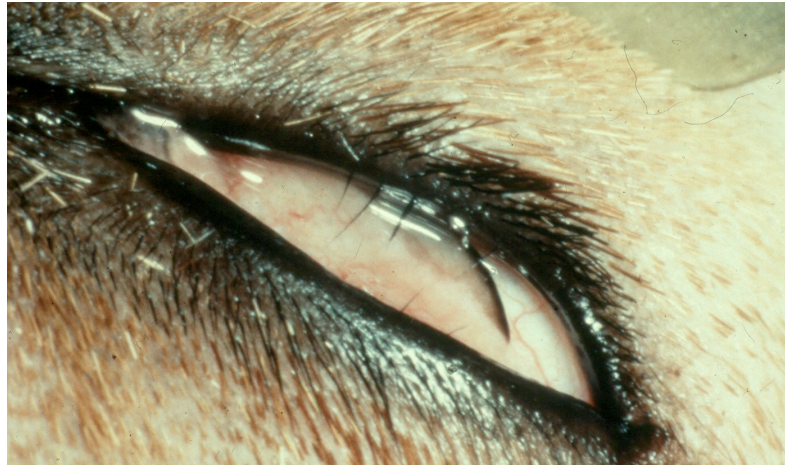
The term trichiasis refers to eyelashes or hairs originating from a normal position on the eyelid or adjacent skin but which irritate the eye by rubbing on the cornea. This condition is common in many breeds, for example hairs on the nasal folds in brachycephalic dogs such as Pugs, Cavalier King Charles Spaniels, Shih Tzus, or Pekingese can irritate the eye, or sometimes facial droop can occur (e.g. in Cocker Spaniels and Bassetts) which leads to rolling in of the upper lids leading to irritation.

Affected animals often present with chronic irritation to the eyes, recurrent infections, or scarring of the cornea (the clear window at the

front of the eye).

Correct identification of the problem allows successful treatment, generally in the form of surgical reconstruction of the defect. This surgery is very effective at controlling the condition and preventing long term damage to the eye.

Distichiasis



Distichiasis refers to hairs emerging from the openings of the Meibomian glands along the lid margin and is a common condition in many breeds. In many cases these extra hairs appear to cause little irritation or damage to the ocular surface and treatment may not be necessary. However, sometimes these hairs lead to severe pain and scarring and surgery is required to correct the problem. Many treatment options exist for this condition, and proper examination of the eye by an Eye Specialist will help determine the correct treatment of the condition. With any of these treatment methods, recurrence of the hairs can be a problem and the possibility of repeat treatments cannot be excluded.

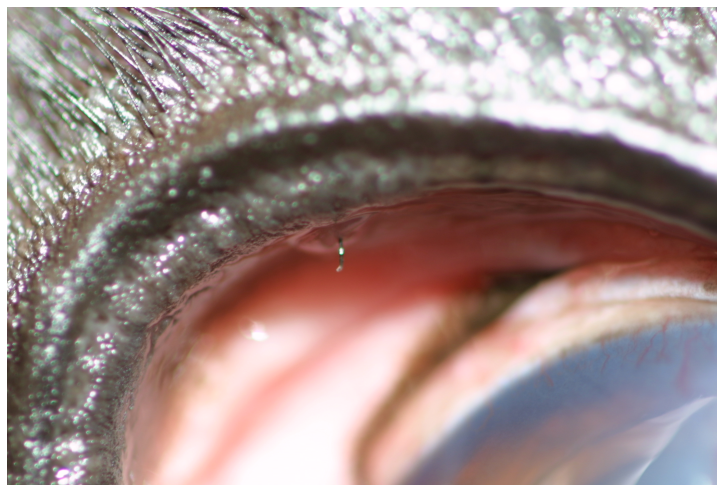
Treatment options include:

- a. **Manual removal:** This is a temporary treatment only. Plucking hairs manually can be useful to test whether a particular hair is causing irritation, but this is seldom a good option for long term control. In fact, plucking hairs in this way can lead to more irritation as hairs that grow back are often short and stout, leading to more irritation than the

long soft hairs that were plucked.

- a. **Electroepilation (Electrolysis):** This refers to destruction of the hair and its follicle with heat via a very fine needle placed into the follicle. This works well if only a few offending hairs are present. Regrowth can occur and scarring may occur if not performed carefully.
 - i. **Cryosurgery:** This refers to the use of extreme cold temperature to treat the condition. Hair follicles are more susceptible to cellular damage by freezing than the surrounding tissues, thus providing selective destruction of the lashes without lid scarring.
 - i. **Lid splitting:** Parallel incisions are made along the lid margin to remove Meibomian glands. This can lead to severe complications due to lid margin destruction, secondary lid distortion and entropion.
- e. **Transpalpebral resection** Parallel incision are based on the palpebral side of the eyelid and aim to remove the Meibomian glands and thus the origin of the offending hairs. This can be very effective in removing the offending hairs.

Ectopic Cilia



Hairs that have emerged through the lid conjunctiva underneath the lid

are referred to as ectopic cilia. These hairs always cause a problem (as opposed to distichiasis where the hairs may not lead to problems in all cases).

The typical presentation is a sudden onset of extreme eye discomfort, watering of the eye, and maybe a corneal ulcer. The condition is much more common in young dogs (<1 year of age).

Ectopic cilia can be very hard to diagnose as these hairs can be microscopic and thus are very difficult to see without high magnification.

An eye specialist will use a slit lamp to thoroughly examine the lids to identify these fine extra hairs that may be the cause of the eye pain.

Surgical treatment involves removal of the offending hair under high magnification (i.e. an operating microscope) and is extremely successful in relieving the pain. As opposed to distichiasis, recurrence of an ectopic cilium is very rare.