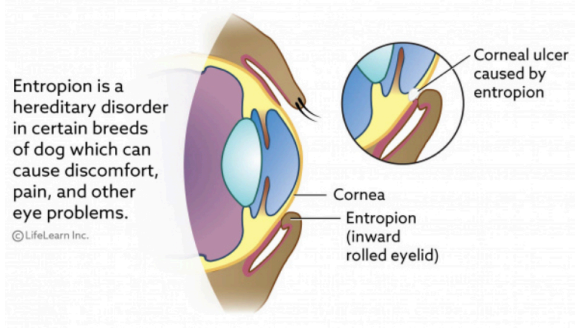
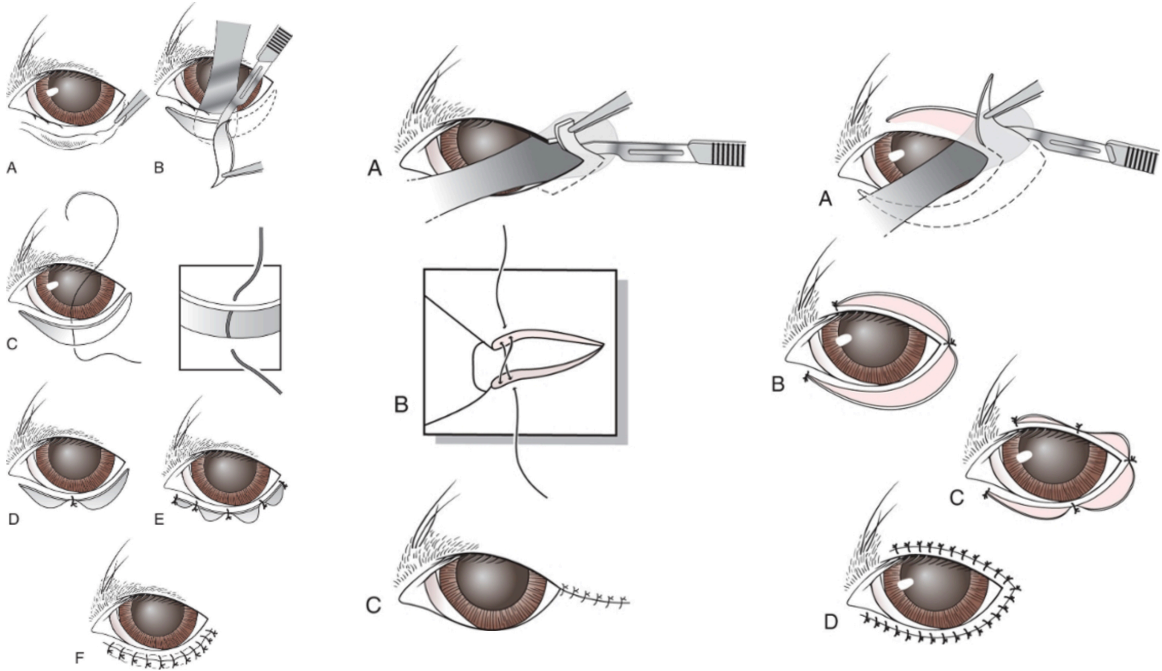
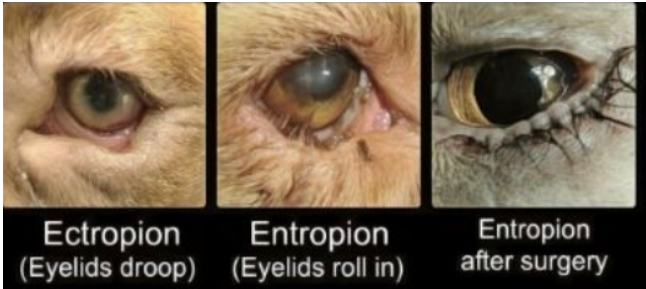


Entropion &/or Ectropion (Ophthalmology)



WHAT IS ENTROPION?

Entropion is the inward rolling of the eyelids. This results in direct contact between haired eyelid skin & the eye surface, which is irritating & uncomfortable. Entropion can involve one lid, or as many as all four eyelids. Some patients are mildly affected, demonstrating increased tearing & conjunctival redness. More severely affected patients will have chronic pain & vision threatening consequences including corneal inflammation (keratitis), scarring, pigmentation &/or ulceration.

WHAT IS ECTROPION?

This is an outward turning, gaping or reversion of an eyelid & almost always affects the lower lids. It is common in older dogs & in breeds such as Cocker Spaniels, Bloodhounds & Bernese mountain dogs. It can also occur after trauma, scarring & entropion surgery.

WHAT ARE THE SIGNS OF ENTROPION?

Entropion can affect one or both eyes. Symptoms include:

Most dogs will squint, hold the eye shut & tear excessively (epiphora) though some patients will develop a mucoid discharge. Interestingly, many flat-faced dogs with medial entropion (involving the corner of the eyes near the nose) exhibit no obvious signs of discomfort. In most cases, both eyes are affected. It is usually diagnosed in puppies under 1 year of age.

- Protrusion (drooping) of the lower eyelid resulting in exposure of the conjunctiva & third eyelid.
- Redness & irritation of the exposed conjunctiva.
- Drying of the conjunctiva & facial staining due to the tears spilling out onto the face rather than passing over the corneal surface.
- Recurring bacterial infections or foreign bodies.

HOW DO YOU TREAT ENTROPION?

The treatment for entropion is surgical correction. A section of skin is removed from the affected eyelid to reverse its inward rolling. In many cases, a primary, major surgical correction will be performed, & will be followed by a second, minor corrective surgery later. Two surgeries are often performed to reduce the risk of over-correcting the entropion, resulting in an outward-rolling eyelid known as ectropion. Most dogs will not undergo surgery until they have reached their adult size at 6-12 months of age.

"The treatment for entropion is surgical correction."

Both prior to surgery & after surgery, ophthalmic medications such as various antibiotics & artificial tear lubricants may be used to help treat secondary problems that have developed & to protect the cornea, respectively.

ARE CERTAIN BREEDS MORE LIKEL TO HAVE ENTROPION?

Entropion is considered a hereditary disorder.

While the exact genetics are unknown, many breeds are identified as having this problem.

Breeds include Akita, American Staffordshire Terrier, Basset Hound, Bernese Mountain Dog, Bloodhound, Bulldog, Chesapeake Bay Retriever, Dalmatian, English & American Cocker Spaniel, English Springer Spaniel, English Toy Spaniel, Flat-coated Retriever, Golden Retriever, Gordon Setter, Great Dane, Great Pyrenees, Irish Setter, Japanese Chin, Labrador Retriever, Mastiff, Newfoundland, Old English

Sheepdog, Pekingese, Pomeranian, Pug, Rottweiler, Shar Pei, Shih Tzu, Saint Bernard, Siberian Husky, Staffordshire Bull Terrier, Tibetan Spaniel, Toy & Miniature Poodle, Vizsla, Yorkshire Terrier & Weimaraner.

PRIMARY (DEVELOPMENTAL) ENTROPION

Primary (developmental) entropion is seen with higher prevalence in certain dog breeds, including English Bulldogs, Shar-Peis, Pugs, Golden & Labrador Retrievers, Chow Chows, & Rottweilers. Entropion is also occasionally seen in cats, most often secondary to chronic conjunctivitis or keratitis.

Primary entropion will typically develop in dogs by 18 – 24 months of age. Entropion that develops after 12 months of age, will most often require permanent surgical correction. When the condition develops in puppies or immature dogs, temporary correction with sutures (“eyelid tacking”) is recommended, as lid inversion may improve spontaneously with growth. If the entropion persists after the dog is fully grown, then surgery is needed for permanent correction. There are numerous surgical techniques to correct entropion, each tailored specifically to the cause, location & severity of the eyelid malformation.

ACQUIRED (SECONDARY) ENTROPION

Acquired (secondary) entropion can develop in eyes following injury, chronic inflammation & painful eye diseases. Eyelid spasms associated with eye pain result in “spastic entropion”. This form of entropion may also resolve with placement of temporary tacking sutures & medical management of the underlying painful eye disease(s). Surgical correction might be necessary, but the entropion will recur if the underlying cause goes untreated or uncontrolled. The success rates following entropion surgery vary somewhat based on the breed, age, & specifics of the case. In general, surgery is successful about 90-95% of the time. In up to 10% of patients, there are extenuating circumstances that necessitate a second procedure, such as severe entropion with heavy facial skin & wrinkling, young patient, persistence or recurrence of underlying causes inciting the entropion.

Pugs commonly have entropion at the inner aspect of the lower eyelid (medial canthus). The haired skin at the medial canthus rubs on the cornea & Pug corneas tend to pigment easily with this type of irritation. If untreated, the pigment commonly progresses across the cornea & results in visual impairment. Complete corneal pigmentation, referred to as pigmentary keratitis, is a common outcome when the underlying entropion remains. Pigmentary keratitis & is a common

cause of blindness in Pugs. The condition is much easier to prevent, as much of the corneal pigment that is deposited in the cornea is permanent. Pugs with this type of entropion usually respond favorably to a procedure called medial canthoplasty. It involves narrowing of the eyelid opening with partial closure at the inner corner. The cosmetic outcome is also good once the tissues have fully healed from surgery.

Entropion in cats most commonly results from a severe or chronic herpetic infection of the eye. Unfortunately, by the time it develops it is typically permanent damage & does not resolve with successful treatment of the underlying infection. Surgery is usually required to resolve this type of secondary entropion. This is one case where control of the underlying cause is critical since herpes in cats is commonly a chronic or recurrent problem.

HOW DO YOU TREAT ENTROPION/ECTROPION?

Entropion &/or Ectropion both will need surgical correction. Ectropion is less commonly than entropion. Sometimes the condition can be managed with eye lubrication but surgery can be beneficial if entropion or ectropion is causing problems. Surgical procedures are again variable depending on the eye conformation but a commonly used procedure that helps is lid shortening, where the drooping lower eyelid skin is removed. In large breed dogs with excessive facial skin, for example blood hounds, full facial reconstruction to remove the excess skin is often required.

WHAT IS THE PROGNOSIS FOR ENTROPION?

The prognosis for the surgical correction of entropion is generally good. While several surgeries may be required, most dogs enjoy a pain-free normal life. If the condition is treated later & corneal scarring has occurred, there may be permanent irreversible visual deficits. Your veterinarian will discuss a diagnostic & treatment plan for your dog to help you successfully treat this condition.

POST-OPERATIVE CARE INSTRUCTIONS For Pets Following EYELID SURGERY.

What to Expect?

After coming home from the clinic, your pet should be kept in a warm, dry, quiet & ideally indoor location in the 24 hours following discharge. If your pet is discharged on the same day that he/she had surgery, they may still be a little bit drowsy after they go home with you. There may also be some irritability or incoordination during this initial 12-24-hour period immediately after the surgery.

The shaved area on your pet's front or back legs is the IV fluids &/or IV catheter site. Some bruising to this area may be seen when they go home with you; however, if this persists beyond 72 hours, please give us a call at the clinic. You may also find that the underside of their paw may have been shaved - this allowed the placement of blood pressure monitoring equipment, so that we could monitor their progress under anesthesia closely.

EYE CARE

Your veterinarian or veterinary nurse will show you where your pet's surgical site is. There are usually several sutures present on the surgical site. It is helpful to count the number of stitches present when your pet first goes home with you, so that you will know if any goes missing before the wound is fully healed.

The surgical site should be checked daily for swelling, discharge or loss of sutures. It is important that you keep your pet in a clean & dry environment so that the surgical wound remains clean. Pets should not get bathed or allowed to get their wound wet in any way, until all the stitches have been removed & the wound is fully healed.

If your pet's eyes have a lot of discharge, your veterinarian may prescribe you a special eye cleansing solution & best direct you how to keep your pet's eyes clean. It is important that you check with your veterinarian about what solutions can be used to safely cleanse your pet's eye/eyelid, because some liquids can severely irritate the eyes.

A small buildup of tears &/or mucus in the operated eye/eyelid may be expected in the first 3-5 days following surgery. However, if you notice excessive tears, squinting of the eye &/or your pet not being to hold its eye fully open, please arrange a revisit appointment so that our veterinarians can assess the surgical site.

It is also imperative that your pet is NOT allowed to paw at the operated eye, because this may lead to the wound splitting open before it is fully healed &/or wound infections &/or other more serious complications. For that matter, most pets will need to wear an Elizabethan collar following eye/eyelid surgery. E-collars may be purchased from our clinic reception. Ensure that pets are not allowed to roam outdoors without close supervision when they are wearing an E-collar, as this poses a choking hazard if it gets caught in a fence or branch. Please monitor for head shaking because this will place enough force around the eyelids to break the sutures a part.

HISTOPATHOLOGY / BIOPSY RESULTS (if applicable)

If your pet underwent eye or eyelid surgery in order to remove a mass, the excised mass will be sent away to an external lab for histopathology with your permission. A veterinarian will contact you with the results as soon as they are back from the lab – this typically takes up to 7-10 working days.

EXERCISE RESTRICTION

It is important that all dogs are toileted on a lead & only receive light lead exercise, until the surgical site is fully healed. No off-leash or excessive physical activity such as running around or jumping onto/off items of furniture are recommended until the surgical site is fully healed. Cats should remain indoors until the surgical wound is fully healed.

For some pets, your veterinarian may also recommend that you keep them only in dim lighting for a few days to a week following the eye/eyelid surgery, in order to optimize comfort to the operated eye.

DIET

Unless otherwise directed by your veterinarian or veterinary nurse at the time of discharge, no significant change is usually required to your pet's diet following surgery. A small portion of your pet's diet should be fed in the evening that they come home with you & then resume feeding normal portions in the morning. It is not unusual for some loss of appetite to occur in the first 24 hours following discharge from our clinic; however, if this persists, please give us a call at the hospital / clinic.

SUTURE REMOVAL

Your veterinarian or veterinary nurse will advise you whether absorbable sutures have been used during your pet's eye/eyelid surgery. Absorbable sutures will dissolve & fall off on their own without removal in 4-8 weeks. Non-absorbable sutures are typically removed 10-14 days after the surgery - please phone for an appointment to book your pet in for suture removal.

MEDICATIONS

Your pet would have received additional pain relief medications after their surgery & some pets may also have oral medications to go home with. Please administer all medications as directed on the label; ensure that pain relief medications are given with a meal.

If you have any questions, please feel free to ask your primary veterinarian &/or veterinary surgeon.

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