

ENTROPION CAUSES & TREATMENT



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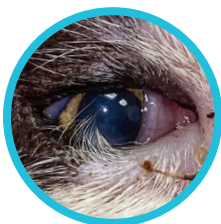
*Providing quality
ophthalmic care
for animals of all
shapes and sizes
so they can see a
better life*



WHAT IS ENTROPION?

Entropion is an abnormality of the eyelids in which the eyelid rolls inward. Rather than the normal, smooth eyelid margin contacting the surface of the eye, the hairs of the eyelid skin roll inward and rub on the conjunctiva, the cornea—or both.

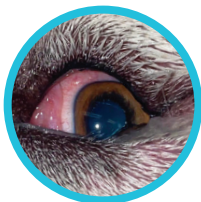
This can result in pain, corneal ulceration or perforation, or scarring of the cornea which can decrease vision.



ENTROPION SYMPTOMS

Signs of entropion may include:

- Excessive tearing or mucus discharge
- Conjunctival hyperemia, or a red appearance to the tissue surrounding the eye
- Squinting or pain
- Wetness or loss of hair along the affected eyelid
- Corneal ulceration
- Corneal scarring, pigmentation, and/or vascularization where the hairs are contacting the corneal surface





PRIMARY CAUSE

The primary cause of entropion is a genetic or conformational anatomic abnormality in the eyelids. It most commonly affects purebred dogs and is considered inherited in Chow Chows, English Bulldogs, Irish Setters, Labrador and Golden Retrievers, Rottweilers, Shar-Peis, Saint Bernards, Great Danes and Chesapeake Bay Retrievers, among other breeds.

Entropion most commonly involves the lateral lower eyelids, but the upper eyelid can be affected in breeds with a heavy brow, such as bloodhounds, Shar-Peis and Chow Chows. The medial canthus (corner of the eye where the upper and lower eyelids meet) is most commonly affected in brachycephalic breeds including Shih Tzus, Pekingese, English Bulldogs, Pugs and Cavalier King Charles Spaniels. Primary entropion is also common in large breed male cats.



OTHER CAUSES

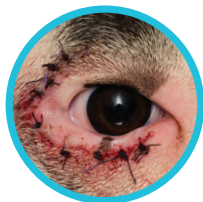
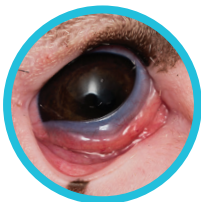
A secondary cause of entropion can occur due to painful ocular conditions such as corneal ulcers or severe Keratoconjunctivitis sicca (KCS, or dry eye). This can cause the eyelids to stick to the eye's surface and roll inward, or lead to constant squinting that results in eyelid eversion. In cats, it is often secondary to chronic feline herpesvirus. Entropion can occur due to scarring from a previous injury or surgery. In addition, it occurs secondary to a sunken globe position (enophthalmos) or smaller globe size (phthisis bulbi or microphthalmia). An example of this would be loss of the fatty tissue of the retrobulbar area that supports the eyeball. This occurs more often in older animals and cats, causing the globe to sink into the socket and the eyelid to secondarily roll inward due to loss of support.



TREATMENT OPTIONS

Treatment depends on the age of the patient, severity of the condition, breed and cause. If entropion is due to a painful ocular condition, we may consider eliminating the source of pain and treating the underlying disease first, then reassessing the eyelid position. Treatment options generally include:

- **Temporary tacking**, which involves placing sutures along the affected eyelid to temporarily roll out the eyelid margin. This procedure is recommended for cases with a treatable underlying condition and for very young animals to allow for facial maturity prior to permanent surgical correction. The sutures are removed once the underlying condition is controlled and resolved.
- **Hyaluronic acid subdermal filler**, an injection used similarly as temporary tacking. Injecting hyaluronic acid into the affected eyelid provides additional rigidity and rolls out an eyelid margin with excessive laxity. This is a good option for very young, very old, or systemically ill pets to avoid general anesthesia.
- **Wedge resection**, when the entropion is due to elongated eyelids which need to be shortened.
- **Hotz-Celsus**, the primary surgical procedure to correct entropion in most cases and the one we most often perform. This addresses breed-related or conformational entropion.
- **Lateral arrowhead procedure**, to correct entropion that involves the outer aspect of both the upper and lower eyelids.
- **Medial Canthoplasty**, used to correct brachycephalic ocular syndrome and lower medial entropion.





POST-OP TREATMENT

The standard post-operative medical therapy involves the pet wearing an Elizabethan collar to avoid their rubbing the sutures. We also prescribe an ophthalmic antibiotic or lubricant ointment and an oral non-steroidal, anti-inflammatory medication (NSAID) for pain.

In most cases, sutures are removed at two weeks, and no further medical therapy is required.



PROGNOSIS

The prognosis for entropion is generally excellent, if corrected prior to the development of more significant secondary complications such as progressive corneal ulceration or scarring. In most cases, once the entropion is corrected, it will not return.

Infrequently, entropion can return when there are changes in the eyelids, such as with blepharitis (inflammation of the eyelids) or excessive weight gain, or even continued maturation of the patient.

In most cases, correcting the underlying cause medically should restore the eyelid conformation.



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HOURS OF OPERATION

Monday, Wednesday, Friday 9:00 a.m. - 5:00 p.m.

Tuesday, Thursday 9:00 a.m. - 6:30 p.m.

One Saturday a Month 11:00 a.m. - 2:00 p.m.

SUFFOLK CLINIC at THE COVE Friday 9:00 a.m. - 12 p.m.
6550 Hampton Roads Parkway, Suffolk, VA 23435

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