

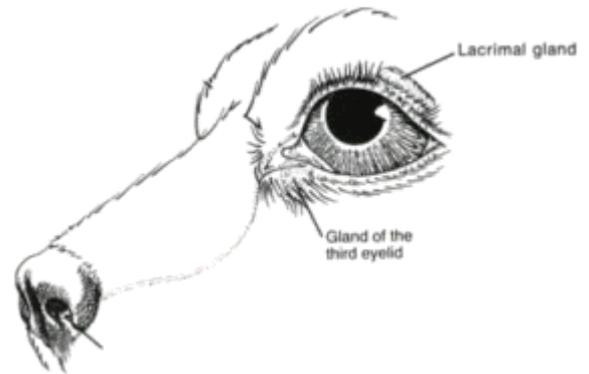


Keratoconjunctivitis Sicca (KCS)

Why Tears Are Good

We can all imagine the discomfort of dry, irritated eyes and the soothing provided by eye drops. Tears are essential to the comfort of our eyes but they do more than just provide lubrication. Tears contain anti-bacterial proteins, salts, sugars, and even oxygen to nourish the eye. Tears flush away irritants and infectious agents that are constantly getting in our eyes. Since the outer portions of the eye do not have a blood supply, the tears must bring sugars and oxygen and must remove metabolic waste.

Tears consist of oil secreted by the eyelid glands, mucus, and (mostly) water. Tears are secreted by two lacrimal glands in dogs and cats: one just above the eye and another in the third eyelid (or so-called nictating membrane).



Without tears, eyes become irritated, the conjunctival tissues around the eyes get red, the cornea itself in time will turn brown in an effort to protect the eye, and a gooey, yellow discharge predominates. Blindness can result.

Keratoconjunctivitis sicca, or KCS, is a fancy way of saying the eye is dry. Kerato refers to the cornea or clear covering of the eye. Conjunctivae are the moist pink membranes of the eye socket. "itis" means inflammation and sicca means dry. KCS means inflamed, dry cornea and conjunctiva. It occurs when there is a deficiency in the water portion of the tear film that normally accounts for 95% of the tear volume. Without the water, one is left with oil and mucus; hence, the gooey yellow eye discharge characteristic of this condition.

Predisposing Factors:

- Dysfunction of the immune system (Immune mediated)
- Inappropriate conformation of eyelids
- Traumatized or damaged nerves
- Certain drugs/medications
- Uncorrected prolapsed nictans gland ('cherry eye')
- Surgical removal of nictans gland
- Trauma or inflammatory disease of the eye or area surrounding the eye
- Congenital
- Canine distemper virus
- Underlying disease

Clinical Signs:

- can affect one or both eyes
- thick yellow discharge can be present
- the sclera (white of the eyes) is red and inflamed
- dark pigment starts to extend across cornea & therefore impairs vision
- corneal ulceration is a common consequence if untreated
- pain, irritation, discomfort of eye

Treatment:

Once KCS develops, it will remain for life. This means that treatment for KCS is life long, although the dosage and type of medication may change over time. If treatment is ceased the eyes will be comfortable for a short period of time but will inevitably start to deteriorate again, causing pain & a poorer long-term outcome. Treatment commonly involves a medication called cyclosporin which helps to stimulate tear production. Sometimes tear substitutes, antibiotics & anti-inflammatories are used in conjunction.

Ongoing, lifelong testing of your pet's tear production using the simple Schirmer tear test that was used to diagnose the problem, is necessary to ensure that the condition is always properly treated. Regular rechecks with your veterinarian are recommended to ensure your pet's eyes are comfortable & responding well to the medications.