

KERATOCONJUNCTIVITIS SICCA (KCS)

“Dry Eye Syndrome”

WHAT IS KCS?

KCS is defined as a deficiency of tears that occurs commonly in dogs and infrequently in cats.

WHAT ARE THE SIGNS OF KCS?

KCS is most commonly a chronic, progressive disorder. It may affect one eye or both. Dogs with a moderately lowered tear production may have a chronic or recurring conjunctivitis (swollen membranes around the eye) with minimal irritation to the surface of the eye. As the tear production further decreases and the condition progresses - tacky, mucoid discharge clings to the eyelids and the surface of the eyes and may stick the lids together. The conjunctiva may become red, thickened and possibly pigmented. The surface of the eye loses its lustre and some animals may have a dry nostril on the affected side. The degree of pain or discomfort varies from dog to dog but blinking and squinting are commonly seen. In some cases, ulcers develop on the surface of the eye which not only cause pain but can also potentially cause the eye to rupture. KCS most commonly affects predisposed breeds which include the Cocker Spaniel, West Highland White Terrier, Shih Tzu, Lhasa Apso, Cavalier King Charles Spaniel, Bull Terrier, Bulldog, Miniature Schnauzer, Dachshund, Chihuahua, and Pekinese.

WHAT CAUSES KCS?

Autoimmune adenitis of glandular tissue

The majority of cases fall into this category. The tear producing gland breaks down due to inflammation caused by the immune system and it stops producing tears.

Congenital

May be due to a lack of growth or a retarded functional development of the tear producing glands present at birth. KCS is, however, much more common in older dogs.

Trauma

KCS due to trauma may be the result of damage to the nerves that supply the glands. In some instances, normal function may return over 1-2 months.

Secondary to chronic conjunctivitis

The swollen membranes around the eye may cause obstruction of the ducts leading from the glands.

Distemper

The distemper virus can destroy the tear producing glands.

HOW IS KCS TREATED?

Medical

Stimulation of tear production can be achieved, in many cases, by the use of cyclosporin (immunosuppressant drug) eye drops, often combined with corticosteroids and antibiotics. Cyclosporin not only stimulates tear production by stopping the immune system from attacking the gland tissue, but it also slowly reverses some of the changes (scarring) on the surface of the eye. It is important to understand, however, that **cyclosporin is only a treatment, not a cure, and will need to be used forever.** Stopping the treatments results in recurrence of glandular inflammation and causes further damage which may result in the need for surgery.

*****It is important to understand that cyclosporin is only a treatment, not a cure, and will need to be used forever. It is of utmost importance that you follow the ophthalmologist's instructions with respect to recheck appointments - we are unable to prescribe repeat prescriptions if the doctor has not examined your pet to ensure the drops are controlling the condition adequately. Initially, frequent rechecks may be required, but once the drops have increased the tear production and any secondary infections are under control, rechecks are only needed once or twice per year.*****

Surgical

In certain breeds that have protruding eyes (e.g. Pug, Shih Tzu, etc.), surgery to close a portion of the eyelids may help to decrease the amount of moisture that evaporates from the eye.

Dogs that develop corneal ulcers require specific treatment including antibiotic drops or ointments and for deep ulcers, surgery to apply a "conjunctival flap" is necessary to prevent perforation of the eye. This procedure is performed by attaching a portion of the soft tissue that surrounds the eye directly onto the ulcer. The flap provides protection and support for the weakened cornea and supplies blood directly to the ulcer site which aids in healing.

In some cases where medical management with cyclosporin eye drops is unsuccessful, surgery can be performed whereby the parotid salivary gland duct is removed from inside the dog's cheek, pulled up into the conjunctiva, and sewn in place to provide lubrication for the eye with saliva. Parotid saliva is similar to tears and can act satisfactorily as a tear substitute. This surgery is less commonly required now due to the recent advances in medical therapy. It is also not without potential complications, including the precipitation of salivary salts on the margins of the eyelids (this can be treated with medicated drops and frequent cleaning).