Rule out canine KCS with the Schirmer Tear Test

The Schirmer Tear Test is comprised of a paper strip that is folded and hooked over the lower eyelid. Once in place, tears begin to "wick" up the filter paper. The distance, in millimeters, that the tears wick up the test strip in one minute, represents the millimeters of tear production.

Early diagnosis improves treatment outcome

STT Result		Interpretation	Follow up*
≥ 15 mm/minute	10 20 8	Normal	 No clinical signs - Retest at next exam Clinical signs - Further diagnostics
> 10-14 mm/minute	5 15 20 8	Early or sub-clinical KCS	 No clinical signs - Retest in 4 weeks Clinical signs - Start Treatment Exophthalmic breeds - Start Treatment Decreasing tear production has been documented - Start Treatment
6-10 mm/minute	15 20 30	Mild to moderate KCS	Start treatment
≤ 5 mm/minute	10 20 30	Severe KCS	Start treatment

Although Keratoconjunctivitis sicca (KCS) is bilateral, each eye may be at a different stage in the disease process at the time of examination. Therefore, if one eye tests abnormal, the other eye should also be treated or monitored closely.

* The above graphic illustration is a general guide to Schirmer Tear Test interpretations and suggested follow-ups. It is recommended veterinarians make their own assessment for each individual case.

Progression of Clinical Signs

Healthy Eye

Early KCS

Intermediate KCS

Advanced KCS



Healthy Eye

 Normal tear production STT >15 mm



Early KCS

- Slight reduction in tear production, STT <15 mm
- Possible minor irritation
 Vision not, or only slightly, affected
- Signs are not always noticeable
- Increased susceptibility to infection
- Treatment can resolve signs and treat the underlying cause



Intermediate KCS

- Insufficient tear production, STT <10 mm
- Irritation of the eye
- Loss of vision possible
- Frequent recurrent infections
- At risk of ulceration, often slow to heal
- Treatment can stabilise the disease and prevent recurrent infections



Advanced KCS

- Severe reduction in tear production, STT <5 mm
- Severe irritation of the eye and formation of crusting
- Reduction of vision
- Corneal oedema, neovascularisation and pigmentation
- High risk of ulceration, slow to heal, can progress to perforation
- Treatment partially restores sight and prevents further loss of vision

Schirmer Tear Test

There are 10 envelopes per box, each envelope has 5 sets of 2 strips, each set of 2 in a sterile packet. Each strip is calibrated in mm for easy measuring, has right and left eye markers and a blue dye that starts wicking at 5mm for easy tracking of the measurement.





