

History

♥ Obtaining a thorough history is important before performing the ophthalmic examination. Painful eye conditions in horses need thorough evaluation for corneal and uveal inflammatory diseases. If some form of visual disability is suspected, it is of value to know the rate of progression rate of such signs, and how the horse performs under different lighting conditions. Knowledge of prior therapy is critical in most cases.

Ophthalmic Examination

✓ To be able to perform a proper ophthalmic examination, it is necessary to have a bright focal light source such as a transilluminator or a direct ophthalmoscope.

✓ The head is examined for symmetry, globe size, movement and position of the globe, ocular discharge, and blepharospasm. The general appearance of the eyes and adnexa are noted.

♥ It can be useful to examine the angle of the eyelashes of the upper lid to the cornea of the two eyes, as droopiness of the lashes of the upper lid may well indicate blepharospasm, ptosis, enophthalmos, or exophthalmos. Normally the eyelashes are almost perpendicular to the corneal surface. (Figures 2-1 and 2-2). Often, the first sign of a painful eye is the eyelashes pointing downwards.

Reflex Testing

♥ Making a quick, threatening motion toward the eye to cause a blink response and/or a movement of the head tests the menace response. This is a crude test of vision. Take care not to create air currents toward the eye when performing this test. Horses have a very sensitive menace response.

☞ The horse should also quickly squint or “dazzle” when a bright light is abruptly shown close to its eye.

✓ The palpebral reflex is tested by gently touching the eyelids and observing the blink response.

✓ Vision could be further assessed with maze testing with a towel or a blinker alternatively covering each eye. The maze tests should be done both under dim and light conditions.



Figure 2-1.(left) Eyelash position can aid the diagnosis of painful eye conditions in the acute stages.

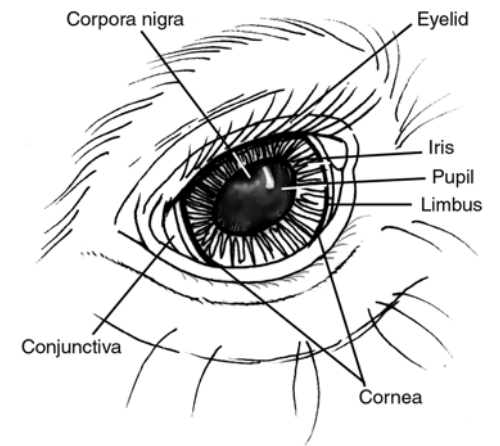


Figure 2-2. (right) Overall detailed drawing of horse face that demonstrates the lateral position of the horse globe, and the gross anatomy of the eyelids, cornea, and anterior uvea.

♥ The pupillary light reflex (PLR, direct and indirect) evaluates the integrity of the retina, optic nerve, midbrain, oculomotor nerve, iris, and iris sphincter muscle. The normal equine pupil responds somewhat sluggishly and incompletely unless the stimulating light is particularly bright. Stimulation of one eye results in the constriction of both pupils. The PLR is valuable in testing potential retinal function in eyes with severe corneal or lens opacity.

Diagnostic Testing

♥ It is important to approach each eye problem in the horse in an ordered and systematic manner. The majority of cases can be diagnosed by using standard ophthalmic clinical examination techniques.