

Eye disease in the horse

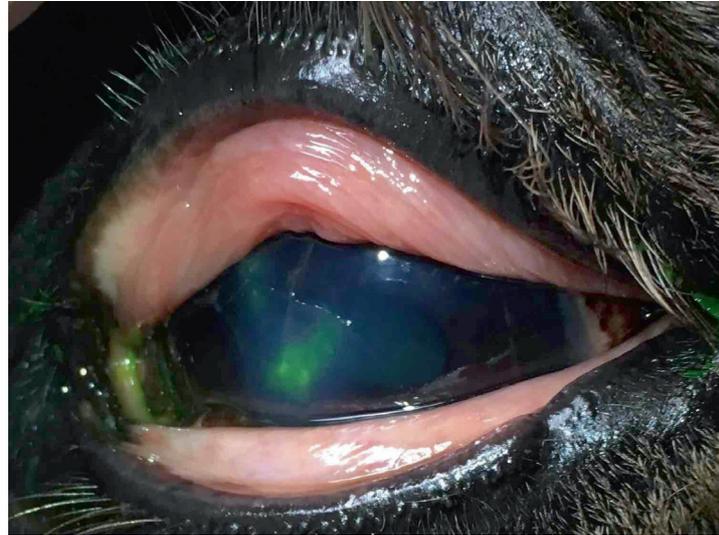
By Matt Hanks, BVSc MRCVS of Central Equine Vets

Eyes are very complex and have their own special environment that is separate from the rest of the body. The cornea is the clear covering that allows light to pass through the pupil and lens and be shone onto the retina that contains unique cells that change light into electrical signals that are interpreted by the brain into an image.

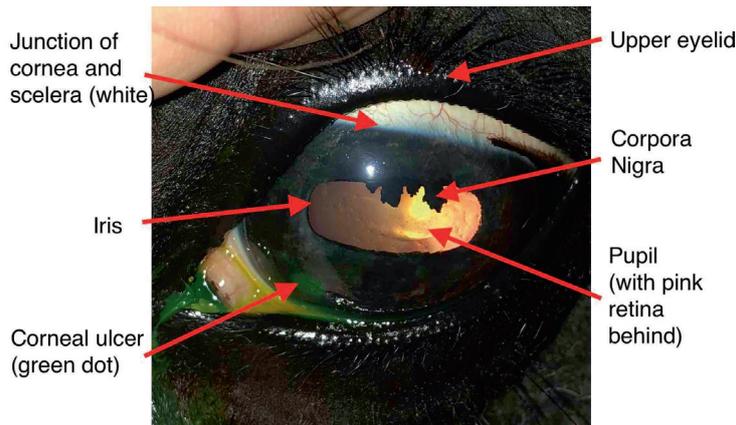
A complex balance occurs between the amount of light entering the eye which is focused onto the retina so as to produce a sharp clear image. Any damage to any structure of the eye can ultimately result in image quality deteriorating, leading to some form of sight loss or blindness.

Some common problems of eyes are:

1. Infections - flies are attracted to horses' eyes and contaminate them with bacteria. Sometimes the eye gets overwhelmed and a conjunctivitis can develop, which appears as an eye with swellings protruding from under the eyelids (see picture above right). Bacteria can also enter if the flies irritate the eye and the horse rubs its eyes on its front legs or the haylage net.
2. Corneal damage - Both the pictures shown here, show a green dot. This is a corneal ulcer that has been highlighted using a special dye. Most ulcers cannot be seen without using this dye. An ulcer is often easily treated but sometimes if a fungus (for example) starts to grow in the ulcer then it is possible to permanently lose



An eye with conjunctivitis and a corneal ulcer (green dot) that has been stained with a special dye to make it visible



A horse's eye showing a damaged cornea (green dot)

3. Abnormal growths - Horses can develop cancer around their eyes and this must be treated quickly to ensure the eye is not lost. This usually involves surgery. The most serious form of cancer is a squamous cell carcinoma.

4. Uveitis - pronounced 'U-V-itis' - is a potentially serious condition that affects the structures within the eye. This condition can develop if an inflamed eye is not treated quickly enough. In the normal eye, pupil size is controlled by muscles that contract the iris to make the pupil smaller or relax the iris to make the pupil larger. In

uveitis the muscles go into spasm causing the pupil to become very small. This cramping can be very painful and if not treated the iris can 'stick' to the lens and stay that size forever!

5. Autoimmune disease - a condition that we are seeing more of these days is a condition called 'immune mediated keratitis'. This is seen mostly in older horses and its cause is unknown. It can result in the cornea breaking down in areas and lifting off. Despite some relief with treatment, the condition generally progresses over time until the only option is to remove the horse's eye. Thankfully, after removal, the horse does very well and can be ridden normally.
6. Cataracts - often related to age and caused by the lens in the eye becoming opaque. This affects vision and in severe cases the horse cannot be ridden.
7. Trauma - as with any part of the body, a blow or foreign object can cause damage to the eye. The eye does have a remarkable ability to heal and even eyes that have had thorns pierce them can recover with the vision intact.

The best advice to offer you when you have a horse with a sore eye is to seek immediate veterinary attention. Please do not use home therapies as any delay can lead to the eye becoming more diseased and could worsen the outcome. If you have any concerns about your horse's eye, please call your vet or call the practice on 0131 6645606



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