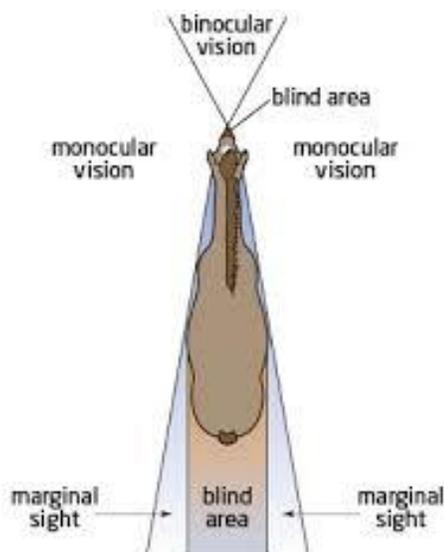


## Every Eye Injury is an Emergency

Michael Thomassen

Equine eyes are highly specialized and allow horses to be observant in their environment. They have large eyes that are placed prominently on their head. From a safety stand point, horses need to have great eyesight to help them avoid predators in the wild. Their great eyesight also helps them perform work or athletic activities for our enjoyment. Below is a diagram of a horse's field of vision and a picture of a normal equine eye.



Normal Equine Eye

<http://blog.classic-equine.com/2012/10/how-horses-see/>

Unfortunately, equine eye injuries can have a devastating effect on the horse. If their vision is permanently decreased or lost in one or both eyes, they can become more spooky, unrideable and a danger to themselves. All eye injuries should be seen as an emergency and be attended by a veterinarian.

### What to Expect

Your veterinarian will talk with you to obtain a history which may include how long the symptoms have been present and if this is the first eye issue or if this is a chronic problem. A thorough eye exam will need to be performed. To facilitate the examination, sedation may need to be used. Eye injuries are often extremely painful for the horse and they will often be holding their eyelids completely closed. The muscles that control the upper eyelid are very strong and sometimes very difficult to open. The nerves that innervate the upper eyelid muscles can be desensitized with local anesthetic to allow the upper lid to be opened completely during the exam. Ophthalmic examinations are best performed in a dimly lit environment with the veterinarian using a bright handheld light to examine the structures of the eye. The structures evaluated include both upper and lower eyelids, the third eyelid, cornea, iris, pupil, lens and retina.

## Potential Injuries

The most frequent eye injury that we encounter in our practice is damage to the cornea such as a scratch, laceration or corneal ulcer. The cornea is a highly innervated structure. A specialized stain can be applied to the eye to diagnose corneal injury. This stain only sticks to the cornea if the outermost layer is absent.



<https://www.acvs.org/large-animal/ophthalmology-surgical-emergencies>

This is an example of a superficial corneal ulcer after the eye has been stained.



<https://www.acvs.org/large-animal/ophthalmology-surgical-emergencies>

This is an example of a deep corneal ulcer that is completely through the cornea and has prolapsed iris in the center of it.

## Treatment

Treating corneal ulcers can require both medical and surgical intervention. Medications that are used in corneal ulcers include topical antibiotics, topical antifungals, systemic antibiotics, systemic anti-inflammatories, and topical agents to dilate the pupil. Many eye injuries require treatment of more than one of the medications listed above. Frequency of treatment for the topical eye medications can vary from once every 12 hours to once every 2 hours. Surgical treatment for select cases could include suturing corneal lacerations or conjunctival grafts. Conjunctival grafts cover a corneal defect to provide protection and a good blood supply to the area.

## Take Home Message

I want you to remember one important statement: All eye injuries should be examined by a veterinarian so that appropriate treatment can begin as soon as possible. Early intervention can often be the difference between a devastating outcome and a successful outcome.