



## *Common Summer Eye Disorders of the Horse*

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**Introduction:** Eye problems in horses during the summer months are common. They can range from mild brief swelling to serious vision and eye-threatening problems. Although horses do not need an excuse for damaging their eyes, trauma to the eye during turnout, storms, or traveling for shows is common. Minor injuries that are ignored or not treated quickly enough can develop into vision threatening ocular disease in a short period of time. Eye injuries in horses are particularly difficult because the eye of the horse is slow to heal compared to other animals. Furthermore, the equine cornea is particularly prone to infection. Ultimately, because of the prominent location of the eyes on a horse and because of the propensity for horses to throw their heads around, your horse can injure his eye just standing in his stall.

**Ocular Injuries:** Most injuries to a horse's eye are mild and consist of a sharp poke in the eye from hay or a branch, or from the lodging of a foreign body, such as shavings or dirt, in the eye. Clinical signs of a minor trauma usually include some swelling to the eyelids or conjunctiva and discharge from the eye (tears or mucous). If the trauma also causes a corneal ulcer (a break in the outermost layer of the eye), the eye can become even more swollen and painful. A corneal ulcer can cause excessive tearing (epiphora), strong squinting (blepharospasm), cloudiness (corneal edema), and swelling of the eyelids. The diagnosis of a corneal ulcer is made based on these clinical signs and fluorescein staining of the cornea, which your veterinarian will do. It is critical to start topical antibiotic therapy immediately when a corneal ulcer is present to prevent a bacterial infection. It is also important to attempt to establish the cause for the ulceration and eliminate it (i.e. if a foreign body is present in the eye). Topical corticosteroids must not be administered in the presence of a corneal ulcer and a history of previous topical corticosteroid therapy increases the likelihood of infection, especially fungal. If your horse is keeping the eye closed or is acting uncomfortable after even a mild trauma to the face, you need to call your primary-care veterinarian immediately. Institution of the correct therapy for the amount of damage done, as soon as possible, dramatically diminishes the possible complications of the trauma.

**Routine Treatment of Corneal Injuries:** Treatment of an uncomplicated corneal ulcer involves controlling pain and inflammation, eliminating or preventing infection, and preventing secondary complications. Healing occurs, depending on the size of the ulcer, within 2-7 days. Complicated corneal ulcers are those that fail to heal in an appropriate time, are secondarily infected, have an ongoing source of irritation or re-ulceration, or are worsening despite appropriate treatment. A topical broad-spectrum antibiotic such as neomycin-

bacitracin-polymixin B (Triple antibiotic for the eye) is usually the initial antibiotic of choice. Frequency of administration varies according to severity of the disease. When topical antibiotics are used prophylactically for an uncomplicated corneal ulcer treatment, application of the medication three or four times daily is sufficient. However, in severe infectious keratitis, therapy might be hourly. Additional treatment will vary according to the type and severity of the ulcer.

**Lacerations and Blepharitis and Conjunctivitis:** Swelling of the eyelids and/or conjunctiva usually occurs secondary to other ocular diseases such as trauma, glaucoma, uveitis, and corneal ulcers. However, it is possible to see these diseases primarily, especially conjunctivitis. Clinical signs of conjunctivitis/blepharitis, in addition to swelling, include excessive tearing, mucoid discharge from the eye, redness of the conjunctiva, and squinting. Blepharitis (swelling of the eyelids) is often associated with conjunctivitis. The most common cause in the horse is probably acute trauma. Anytime a horse sustains blunt force trauma to the eye area, these tissues will typically swell. Lacerations of the eyelids and conjunctiva can occur at the same time and result in visible defects and bleeding. A veterinarian should see a laceration in which the lid margin has been affected within 24 hours. Failure to re-appose the lid margin correctly, if required, could lead to long-term corneal problems that are very serious and could result in loss of the eye. Other causes for blepharitis and conjunctivitis include foreign bodies in the eye, parasites, infectious (viral, bacterial, fungal), and immune mediated, including allergic and eosinophilic. Allergic conjunctivitis is probably the second most common cause of conjunctivitis following trauma. It is seen frequently in the summer months due to fly-bite irritation and environmental allergens such as molds, dust, and sprays. The use of topical steroids to treat “allergies” should be avoided here in Florida due to the risk of a fungal infection in the eye. Anti-allergens such as Zaditor or non-steroidal anti-inflammatories are a safer first choice.

**Stable Management Practices to Decrease Ocular Injury and Maintain Healthy Eyes:** To minimize ocular diseases, you should decrease the chance of ocular injury and minimize the inflammatory stimuli. To decrease potential causes of ocular injury, you should first carefully search throughout the barn or stable and eliminate sharp edges, nails, and hooks. Horses have a remarkable ability to find even the most hidden sharp points, so carefully running your hands under feed bins and other hidden places may locate areas that horses can injure themselves on. Removing low tree branches and other debris from the pasture, minimizing trailering, and use of a quality fly mask are also important steps in decreasing ocular injuries. To maintain healthy eyes, it is important to have good insect and rodent control in the stable, because these pests spread disease and may directly irritate the eyes. Decreasing sun exposure to the eye will decrease irritation and also the chance of developing skin cancer around the eye.

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