

Corneal Ulcers

What is the cornea?

The cornea is the clear front part of the eye. It is less than 1mm thick and consists of several complex layers.

What is a corneal ulcer?

A corneal ulcer is a break in one or more layers of the cornea. The ulcer may be very shallow, involving the outermost layers of the cornea (similar to a scrape or an abrasion), or it may be very deep, penetrating nearly all of the corneal layers. Corneal ulcers have many different causes including: trauma, keratoconjunctivitis sicca (KCS or "dry eye"), entropion (rolling in of the eyelids), exposure, distichiasis (extra eyelashes), foreign bodies, and chemical burns.

How is it recognized?

Symptoms of a corneal ulcer include squinting, sensitivity to light, ocular discharge, and a hazy or blue cornea.

What are the types of ulcerations?

- **Superficial, uncomplicated ulcers**
 - Involve the outermost corneal layers
 - Should heal quickly with medical management
- **Complicated ulcers**
 - Fail to heal in a reasonable time period
 - May be a result of another problem: ongoing trauma (rubbing), unresolved infection, foreign body, extra eyelashes, entropion, dry eye, eyelid masses, etc.
 - Treatment requires removal of the inciting cause
- **Non-healing or indolent ulcers**
 - Also known as "Boxer ulcers" and recurrent epithelial erosions
 - Characterized by loose epithelium (epithelium is the outermost layer of the cornea)
 - May occur spontaneously
 - Treatment involves surgery to debride the loose epithelium and a grid keratotomy or burr keratectomy, which aids in healing by creating a foundation for newly generated cells to anchor.
- **Deep ulcers**
 - Involves 50% or greater of the corneal thickness
 - May require aggressive medication treatment as well as surgical intervention
 - Risk of perforation, which could lead to loss of the eye, is high

How is a corneal ulcer treated?

If recognized early, most superficial ulcers will heal quickly with proper treatment. Deep or infected ulcers may not heal without surgical treatments. Medications are prescribed to control infection, inflammation, and pain. Your pet will also need to wear an Elizabethan collar ("lamp shade" collar) to prevent self-trauma (rubbing). Several types of surgical techniques may be recommended, including conjunctival graft or corneal conjunctival transposition.