

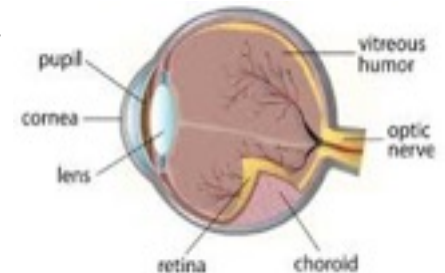
Corneal Abrasion or Ulceration

There are several causes of sudden onset of red and painful eyes and one of the most common causes is a wound or abrasion to the surface of the eye. The clear glassy surface of the eye is called the cornea and because it is the outermost layer of the eye, it is prone to scrapes and tears.

Your pet may be experiencing some of the common signs of a corneal ulceration, such as redness and swelling of the pink tissue lining the inside of the eyelids (known as the conjunctiva); or pain which is typically noted by squinting or rubbing at the eye. The cornea may look cloudy and/or red and a watery or thick discharge may be present on the surface of the eye or around eye.

Common causes of corneal erosions include:

- Rough contact with plants, thorns, or bushes
- Scratches from another animal
- Self-trauma (rubbing or scratching at a painful ear or eye due to another eye condition)
- Chemical irritation
- Foreign body injury
- Dry eye (disease causing decreased tear production within the eye)
- Eyelid abnormalities (lashes or hairs contact the cornea causing irritation)
- Virus infection such as herpes infection in cats



DIAGNOSIS

A fluorescent stain is used to confirm if there is an ulcer or erosion. Normally, water will run smoothly off the surface of the cornea, like rain washing off a windshield. If the cornea is damaged, the stain will stick to the damaged area and look bright green under a fluorescent lamp.

TREATMENT

Any of the following may be used today to treat your pet:

Topical antibiotic _____

Since the damaged cornea is at risk for becoming infected, a topical antibiotic is needed and ideally should be used every **4-6 hours**. Corneal healing time is most effective when this medication is applied as prescribed. Either drops or ointment can be used, depending on the veterinarian's preference.

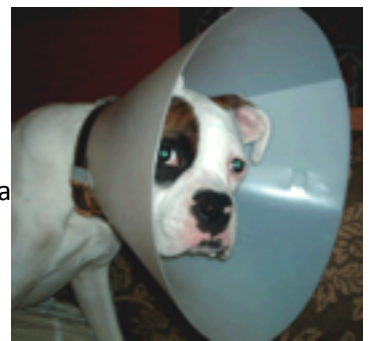
Atropine Sulfate drops

The atropine acts by temporarily preventing pupil from decreasing in size, which the main source of pain is spasms of the pupil. A dilated (large) pupil is expected when this medication is used and your pet may be cautious with bright sunlight while under the influence of this medication. Because the tear duct system is connected to the nose and mouth, the patient will also taste the medication and atropine is known for its bitter taste. Dogs do not seem to mind this **but cats will drool shortly after the medication is given in an effort to get the taste out of their mouths**. This is a normal reaction to the atropine as is a dilated pupil.

Autogenous serum drops

This topical medication is actually your pet's own serum, which is the clear portion of their blood after it has been separated. Serum contains products that prevent the breakdown of your pet's cornea which may delay healing or worsen the ulcer. This medication should be placed in the refrigerator when not being used.

Buster or E-collar



A collar called an Elizabethan collar may be needed to prevent your pet from rubbing the eye which slows healing time. If you think your pet will rub the eye, it is important to have them wear this collar until the erosion is healed. If you are given one be sure your pet wears it for the entire course of treatment.

Oral anti-inflammatories/pain medication _____

This medication is used to further help treat the pain and inflammation associated with the abrasion to the cornea.

MONITORING TREATMENT SUCCESS

It is important that your pet be rechecked and the eye be stained again in _____ days.

Normally most simple ulcers will heal within 5-10 days but some will require more time. If the ulcer has not healed after two weeks, it is no longer considered routine and some other procedures, and possibly a referral to a veterinary ophthalmologist, may be required. If the inflammation worsens or the ulcer goes deeper into the eye, the situation becomes more serious; therefore it is important not to skip the recheck. If there is any concerns about the eye's healing progress, the eye should be rechecked sooner.

**IT IS IMPORTANT THAT YOU OBSERVE THE PROGRESSION OF HEALING AT HOME.
IF THE EYE IS DOING WELL BUT SUDDENLY BECOMES MORE PAINFUL, IF A DISCHARGE DEVELOPS, OR IF
THE EYE SIMPLY DOES NOT LOOK RIGHT, PLEASE CALL OUR OFFICE.**

SPECIFIC ULCER CONDITIONS

Complex or Indolent Ulcers

Some ulcers form with a small lip on the edge of the ulcer. This is a defect within the superficial layer of the cornea that does not properly attach to the deeper corneal tissue. Since the ulcer is trying to heal from the bottom up, the lip interferes and creates an ulcer that seems to never get any smaller. Several techniques can be used to remedy this situation, which may require sedation or anesthesia. One technique performed is called a grid keratotomy where a needle is used to scratch a grid of lines on the cornea. The cornea is then able to heal in grid by grid. Boxers, Shih Tzu or other brachycephalic breeds (short nose breeds) are known for these ulcers but they can occur in any breed.

POTENTIAL COMPLICATIONS

Simple ulcers tend to heal with no further problems. If your pet develops a complex or indolent ulcer, there may be corneal scarring, persistent pigmentation (dark coloring on the surface of the eye) or vision impairment or loss.