

Indolent Ulcers FAQs

UTCVM OPHTHALMOLOGY

What is a corneal ulcer?

A corneal ulcer, sometimes called a corneal scratch, is caused by the loss of a portion of the cornea.

How is a corneal ulcer diagnosed?

A special dye called fluorescein stain highlights the loss of epithelium. Positive dye uptake on the cornea indicates a corneal ulcer is present. Pets with a corneal ulcer are often uncomfortable and show signs of tearing, squinting, rubbing, and redness to the eye.

How is a corneal ulcer treated?

Topical antibiotics are prescribed to prevent or treat infection. Other medications can include pain medications and anti-inflammatories. If prescribed, an E-collar (Elizabethan collar or hard plastic cone) helps prevent self-trauma that can lead to infection or disruption of normal healing.

How long should it take for the corneal ulcer to heal?

In the case of a simple superficial corneal ulcer, the ulcer should heal within 5-7 days, and sometimes will heal sooner. If the ulcer is not healed in 7 days it is considered complicated, indicating there is an underlying condition preventing it from healing (dry eye, abnormal hairs touching the cornea, etc.), infection has occurred, or the ulcer is indolent (special type of superficial ulcer).

What is an indolent ulcer?

Indolent ulcers are also called spontaneous chronic corneal epithelial defects (SCCEDs). It is a special type of superficial ulcer that does not heal properly because the top layer of the cornea (epithelium) does not adhere well to the underlying layer of the cornea (stroma). The molecules that hold the two layers together are abnormal in these patients. Indolent ulcers are frequently seen in older dogs and certain breeds such as the Boxer, but they can be seen in any breed and age. Not all non-healing ulcers are indolent, and all other causes (dry eye, abnormal hairs, infection, etc.) need to be ruled out through a thorough examination.



Using fluorescein stain to evaluate for presence of a corneal ulcer in a dog

What procedures can be performed to help my pet's indolent ulcer heal?

In most cases, indolent ulcers will not heal with medications alone. To start, the ulcer can be debrided with a cotton-tip applicator to remove the unhealthy tissue. Treatment with a diamond burr or a grid keratotomy can be performed to stimulate healing of the ulcer. The intention of these procedures is to force the two layers to reform the molecules that hold them together. These procedures can most often be performed in awake or lightly sedated patients with topical anesthesia. Approximately 80% of indolent ulcers heal within 2-3 weeks following a diamond burr or grid keratotomy; however, multiple treatments are necessary in some patients. Indolent corneal ulcerations non-responsive to these treatments could be treated by alternative surgical treatments, but these often require general anesthesia, and no surgery has a 100% success rate.

A contact lens is also sometimes used to aid in healing. The contact lens can protect the newly forming corneal cells from the eyelids during blinking. Although most contact lenses fit reasonably well, their ability to stay on pets' eyes is unpredictable, and the lens may be lost within hours to days. If the contact does fall out, you do not need to attempt to replace it at home; please just dispose of it.

What to expect after a procedure for an indolent ulcer?

Most patients are slightly more uncomfortable over the next few days following the procedure — increased tearing, squinting and redness are common. Everyday thereafter, you should observe lessening of these signs and overall improved comfort. Should you see that the tearing and squinting is getting progressively worse, please call your veterinary professional. If prescribed, please leave the E. collar in place at all times to prevent self-trauma which can cause a delay in healing of the cornea and introduction of infection.

