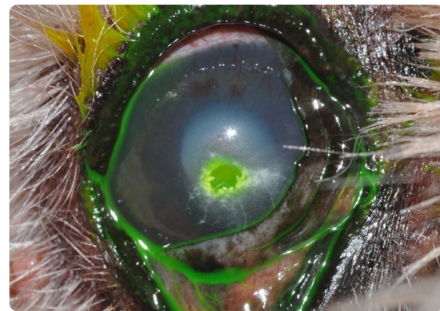


Calcific Corneal Degeneration

What is a calcific corneal degeneration?

The cornea is the clear window to the eye and should be entirely transparent. However, in some older dogs, hard mineral deposit (especially calcium) is deposited onto the cornea, making it partially opaque. Patients with this condition often have impaired vision as their cornea is no longer clear. The corneal surface should also be totally smooth but with the calcium deposits, the surface becomes rough. This in turn can cause painful spontaneous corneal wounds ('ulcers') which do not respond to the usual treatment with antibiotic and lubricant eye drops.



Above left a chronic ulcer associated with calcific deposits, which are seen as opacities in the cornea.

On the right the area of corneal ulceration is highlighted in green

What causes calcific corneal degeneration

There are many possible causes of calcific corneal degeneration such as a previous trauma to the eye, previous inflammation of the eye or systemic disease that cause high calcium levels in the blood. We may recommend blood tests to rule out the latter. Old dogs and West Highland White Terriers appear pre-disposed. However, in many patients, the cause of the condition will never be found.

How is an ulcer associated with calcific corneal degeneration treated?

The key in getting this type of ulcer to heal is the removal of the calcific deposits. This can be achieved in three different ways:

- If the deposits are superficial, they can sometimes be removed either by a debridement with a diamond burr under local anaesthesia or sedation.
- If the deposits extend deep into the cornea or is associated with a deep ulcer, they may have to be cut out under general anaesthesia with the operating microscope. Depending on the depth of the defect, a graft to strengthen the cornea may be necessary.
- In some patients, EDTA eye drops may be helpful in dissolving the deposits. This treatment is often used in addition to the above surgical interventions and rarely on its own.

What are the success chances of the different treatment options?

The healing time depends a bit on how extensive the problem has been in the first place.

- In pets with shallow ulcers, 8 out of 10 patients heal within 14 days of diamond burr debridement
 - Those patients not healing within 14 days may require one or more repeats of the treatment and in some cases, healing of the ulcer can be very delayed.
- In pets with deep ulcers that have required surgery, healing is likely to take 3-4 weeks
- Many dogs with calcific degeneration will require long-term lubricant eye drops

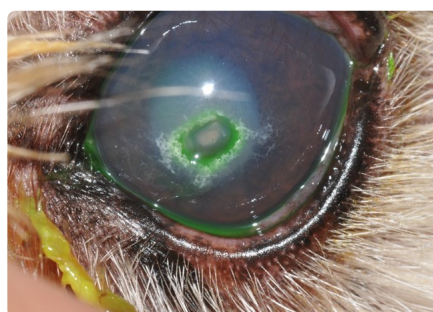
Can ulceration with calcific degeneration recur after treatment?

The answer here is unfortunately yes as ulcers can recur both in the same eye and also in the fellow eye, which is often affected to a lesser degree at the time of original diagnosis. On average, 50% of patients will experience a recurrence within six months which is likely to require further treatment. In many patients with calcific corneal degeneration, long term treatment with lubricant eye drops will be prescribed to reduce the risk of recurrence.

What is the best treatment option for my dog?

Many factors have to be taken into consideration when choosing the best treatment option for your pet. The majority of ulcers associated with calcific degeneration will be managed by minor intervention such as a burr debridement and supportive treatment with lubricant and antibiotic eye drops. In patients where the defects extend deep or where we are specifically concerned that healing could be delayed, we may recommend surgery with placement of a graft ([insert link here](#)).

All ophthalmologists at EVC are happy to advise you based on their experience which would be the most suitable treatment approach for your dog – and we will discuss what suits you and your dog best as part of the appointment.



Above left a deep ulcer associated with calcific deposits. On the right is the other eye of the same patient which has early calcific deposits.