

Corneal Endothelial Degeneration

This factsheet has been prepared to help you understand corneal endothelial degeneration. Whilst it is hoped this factsheet addresses many concerns you may have, please contact us if you have any further questions regarding the condition.

Why is my dog's eye turning blue?

There are several conditions which can make the eye appear blue including; uveitis (inflammation in the eye), glaucoma (increased ocular pressure), cornea (ulceration of the surface of the eye) and cataracts

However a common condition in ageing animals is also corneal endothelial degeneration/decompensation



What is the cause?

Corneal endothelial degeneration/decompensation is a condition usually encountered in ageing dogs. The cornea functions as a clear window to allow light to enter the eye. It is a very delicate and complex structure, which

maintains its transparency by microscopic fluid pumps located within cells on the inside of the cornea that remove fluid from the cornea. Theses cells degenerate with age and don't regenerate. As these cells reach a critically low number, the pumping mechanism becomes insufficient to maintain transparency and the cornea becomes cloudy, due to accumulation of fluid within the cornea.

Are any breeds predisposed?

Any breed can be affected; however, Boston Terriers, Chihuahuas, Dachshunds and German Shepherds may be pre-disposed.

What is the cause?

In the initial stages of disease it is unlikely for your pet to show any obvious signs of visual impairment or discomfort. In advance stages you will notice an effect on vision and there is a risk of development of corneal ulceration, which will cause discomfort. Early diagnosis and treatment are therefore advised.

Can both eyes be affected?

Yes, but not necessarily at the same time.

What treatment options do I have?

In the early stages of the disease, the condition may be successfully controlled with eye drops to draw out fluid from the cornea. However, as this is a progressive disease, surgical intervention is usually required at some point. Surgical treatments for this condition include:

- Placement of conjunctiva (thin layer of blood vessels) in the periphery of the cornea to provide fluid drainage to the cornea.
- Thermokeratoplasty technique to scar the cornea by heat application
 As with most medical conditions there is no 'one size fits all' solution for all cases. The treatment will be tailored to your pet's requirements.

What happens if I do nothing?

If left untreated the condition will progress, resulting in gradual deterioration of vision and development of chronic ocular surface disease (corneal ulceration), which are more challenging to treat in advanced cases than in early stages of the disease.