

WHAT IS CORNEAL ENDOTHELIAL DEGENERATION (CED)?

The cornea is the clear "window" at the front of your pet's eye. The innermost layer of the cornea is made up of specialized cells called endothelial cells. These cells continuously pump excess fluid out of the cornea to keep it clear.

With corneal endothelial degeneration, these cells gradually stop working and cannot regenerate. As more cells are lost, fluid builds up within the cornea, causing it to become cloudy or blue in appearance.

CAUSES OF CORNEAL ENDOTHELIAL DEGENERATION

CED is most commonly:

- An age-related condition (seen more frequently in middle-aged to older dogs)
- Intraocular inflammation may increase risk

Some breeds that may be predisposed include:

- Boston Terriers
- Dachshunds
- Chihuahuas
- German Shorthaired Pointers
- Other breeds may also be affected

SIGNS YOU MAY NOTICE

- A progressive blue, gray, or cloudy appearance to one or both eyes
- Squinting, tearing, redness, or excessive blinking
- Sensitivity to light
- Vision changes in advanced cases

If painful corneal ulcers develop, your pet may keep the eye closed or rub at the face.

DIAGNOSING CORNEAL ENDOTHELIAL DEGENERATION

A veterinary ophthalmologist performs a complete eye examination, which may include:

- Slit-lamp examination
- Fluorescein stain to check for ulcers
- Measurement of eye pressure (tonometry)
- Evaluation of the corneal endothelium and surrounding eye structures



TREATMENT AND PROGNOSIS

Treatment depends on the severity of the disease and your pet's comfort. Early in the disease, many dogs are comfortable despite the cloudy appearance and vision decline. As the disease progresses, swelling of the cornea (corneal edema) can lead to painful blisters on the surface of the eye. If these blisters rupture, they can create corneal ulcers, which are painful and require prompt treatment.

Medical therapy may include:

- Hypertonic saline (5% sodium chloride) eye drops or ointment to reduce corneal edema
- Lubricating eye drops
- Antibiotic and/or pain medications if an ulcer develops
- In some patients with advanced disease, surgical procedures may be recommended to improve comfort.

Corneal endothelial degeneration is a slowly progressive condition. Unfortunately, the inner layer of endothelial cells cannot regenerate, so there is no cure for corneal endothelial degeneration. However, treatment can help reduce symptoms, improve comfort, and preserve vision for as long as possible.