

Glaucoma and Glaucoma Treatment

Frequently Asked Questions

Maintenance of normal pressure within the eye depends on a delicate balance between production and drainage of internal eye fluid (aqueous humor). In canine and feline glaucoma, the problem lies in aqueous humor outflow being obstructed. As the fluid accumulates, the pressure inside the eye rises to dangerous levels, causing pain as well as damage to the retina and optic nerve.

Glaucoma can be caused by a number of different factors. In most dogs it is an inherited condition. Some canine breeds predisposed include Arctic breeds (Samoyed and Husky), Basset Hound, Cocker Spaniel, Beagle, Chow Chow, and Sharpei. Instability of the lens and lens disorders such as cataracts can also cause glaucoma, as can inflammatory conditions, retinal detachment, and cancer. The timeline for the development and progression of the signs and symptoms of glaucoma varies. You may first notice redness around the eye, tearing, squinting, as well as decreased appetite and activity level. With time, the eye will turn cloudy and appear larger or bulging. As the disease progresses, vision loss and pain occur.

About glaucoma

- Glaucoma is a much more aggressive and blinding disease in animals compared to people.
- Common causes of glaucoma include primary inherited disease and secondary glaucoma from uveitis
- If inherited glaucoma occurs in one eye, there is a large risk that the other eye will develop glaucoma too. The other eye should be closely monitored by an ophthalmologist to look for very early signs of pressure elevation to maintain vision as long as possible.
- If inherited (or primary) glaucoma is diagnosed, your ophthalmologist will likely begin a prophylactic medication in the other eye to attempt to delay the onset of glaucoma and to keep your pet comfortable and visual for as long as possible.
- Medication for glaucoma is lifelong.
- Glaucoma surgery may prolong intraocular pressure control and sight, but it is not a cure for glaucoma.
- There is no cure for glaucoma, only management of the disease with medical and surgical treatments. Even with appropriate medical and surgical glaucoma management, animals often lose sight and are in pain. Procedures to provide comfort will be needed.
- Permanent blindness may occur WITHIN HOURS if increased intraocular pressure is maintained. If you suspect your pet is experiencing high pressure, please contact us or our emergency department immediately.

Can glaucoma be cured?

Although glaucoma cannot be cured, it can often be controlled for some period if treated properly.

How do we diagnose and treat glaucoma?

During your first appointment, a complete, detailed ophthalmic examination will be performed to determine the status of your pet's vision, the stage of glaucoma, and whether any permanent damage has resulted from the glaucoma. Intraocular pressures will be taken and specific options for the management of your pet's glaucoma will be discussed with you.

What are the treatment options?

Medications, typically in the form of eye drops, are the first line of therapy. Procedures to rapidly decrease pressure may include intravenous medications, oral medications, and relieving high pressure directly from the eye itself. A pressure curve to generate your pet's specific eye pressure trends may be discussed and scheduled.

Surgical intervention may also be discussed at future rechecks and this includes laser procedure(s) either around or in the eye (to decrease fluid production) and placement of a valve (to increase fluid leaving the eye). Ultimately, you and your ophthalmologist will come up with a treatment plan.

The frequency of long term follow-up appointments will be based upon your pet's needs. These appointments are extremely important to maintain sight and controlled intraocular pressures for as long as possible.

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What is valve placement?

A small implant is placed in the eye that contains a valve which allows aqueous humor fluid to escape when the pressure increases. Many times the valve and ECP are performed together, to maximize our chances of maintaining vision.

What are the laser procedures?

Endocyclophotocoagulation (ECP) is an advanced laser procedure performed inside the eye. Transcleralcyclophotocoagulation (TSCP) laser is a laser applied to the outside aspect of the eye. Both are performed with the aim of decreasing the production of aqueous humor via ciliary body destruction.

A complete evaluation by one of our ophthalmologists is required to determine if your pet's success rate might be higher or lower.

What can I expect after surgery?

As glaucoma is diagnosed later in animals than in people, long term success is challenging and frequent follow-up appointments are required.

Dogs are sent home with an Elizabethan collar to prevent them from rubbing the eye.

Home care after surgery involves applying eye drops four to six times a day for a few weeks, and then slowly decreasing the frequency of medications over time, depending on your pet's response to surgery. Patients typically remain on some level of medication lifelong, even after surgery. Normal activity may resume after two weeks.

About VEI

Veterinary Eye Institute (VEI) is the leading veterinarian owned and led network of stand-alone ophthalmology practices dedicated to making the world a visually clear and comfortable place for pets. VEI offers complete medical and surgical eye care for dogs, cats, horses, small mammals, and exotic pets.

To learn more about VEI's services and team or to find a location near you, visit veterinaryeyeinstitute.com.

What are the potential complications?

Complications directly related to the surgery, although very uncommon, include anesthetic death, hemorrhage, infection, incisional dehiscence, and retinal detachment.

The ophthalmologist will discuss any short and long term potential complications with you before and after the surgery. Follow-up appointments and use of medications, as recommended, are extremely important to help minimize risks of complications, and to maintain control of glaucoma and sight as long as possible.

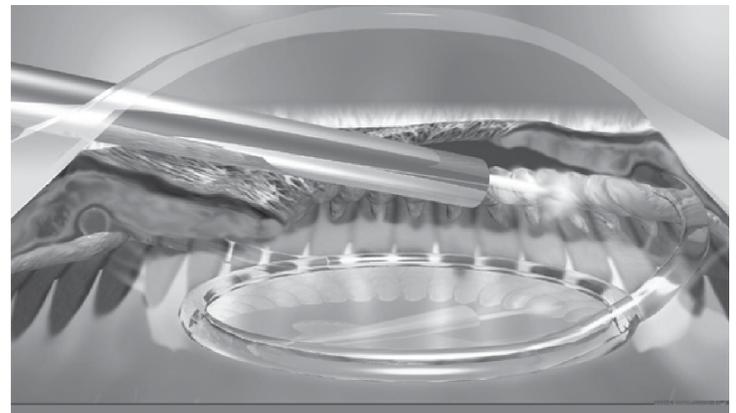


Photo of the limbal approach to Endocyclophotocoagulation (ECP). MedVet's Ophthalmologists were the pioneers in developing this technique.