

Glaucoma

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What is Glaucoma?

Glaucoma is a common cause of blindness in dogs. It is caused by pressure inside the eye which can cause permanent damage if the pressure isn't reduced. It can occur slowly or within 24 hours in severe cases and can be very painful. Glaucoma may either be hereditary, or be caused by things such as trauma, tumours and inflammation. There are 4 types of hereditary glaucoma, all caused by the prevention of the normal drainage of fluid from the eye through the angle formed between the iris and the cornea:-



1. **Open angle glaucoma**

The angle formed between the iris and the cornea closes somewhat. Symptoms generally develop over weeks or months.

2. **Closed (or narrow) angle glaucoma**

The angle formed between the iris and the cornea becomes even more closed, and generally has a more sudden onset of symptoms.

3. **Goniodysgenesis**

A blockage in the angle formed between the iris and the cornea is caused by the abnormal growth of tissue.

4. **Pigmentary glaucoma**

An obstruction between the iris, cornea and sclera is caused by the abnormal growth of pigmented cells.

What are the signs or symptoms of Glaucoma?

The symptoms can include redness, soreness (dog may paw at the eye), or cloudiness of the eye. The eye may even become enlarged or bulge out, and the dog may appear to become light sensitive. Glaucoma is painful and considered to be a medical emergency. If you note these symptoms it is vital to get your dog to a veterinarian immediately. Early treatment may save their vision.

How is it diagnosed?

Your veterinarian will apply local anaesthetic drops to the painful eye and then measure the pressure inside the eye using an instrument called a tonometer. This is not in itself painful but does involve placing the instrument directly over and in contact with the eyeball. If the pressure is high enough to indicate glaucoma, the vet can determine the type of glaucoma by using a technique called gonioscopy. This measures the angle between the lens and the cornea, and like tonometry, simply involves the application of an instrument to the surface of the eye.

How can I avoid buying a dog with it?

Although the mode of inheritance is not well understood, it is clear that certain breeds carry glaucoma in their genetic lines. To reduce the incidence of this disease, it is recommended that dogs affected by glaucoma, along with their parents and siblings should not be used for breeding. Responsible breeders will generally have their breeding dogs' eyes examined on an annual basis. Unfortunately however, the condition may not become evident until a dog reaches 3 years of age or older, which means that if the parents of a puppy you are considering purchasing are young, you may not know if they are carrying the disease. It is therefore very important to discuss the incidence of glaucoma with the breeder, and ask if the grandparents have been examined, and are clear of the condition.