Cataracts in Dogs

What is a cataract?

A cataract is an increase in the opacity of the eye's lens. The lens is a structure within the eye composed of protein fibers, encased within a capsule. It focuses light on the retina and allows clear vision. The structure of the eye is like a camera, which has a lens to focus light on the film.

When a dog develops a cataract, the normally clear lens develops a cloudy or opaque appearance that interferes with the light reaching the retina. Depending on the severity, this interference can significantly impact the dog's vision.

Cataracts can occur in dogs of any age, sex, or breed. A genetic predisposition to inherited cataracts has been observed in many dog breeds. Those considered more susceptible to cataracts include the American cocker spaniel, Labrador retriever, French poodle, Boston terrier, and the Welsh springer spaniel.

What causes cataracts?

The most common cause of cataracts in dogs is inherited disease. Other causes include injuries to the eye or diseases such as diabetes mellitus ("sugar diabetes"). Some cataracts appear to occur spontaneously and are age related.

How will my veterinarian diagnose cataracts?

Cataracts are diagnosed by an ophthalmic exam. Your veterinarian will use a special instrument called an ophthalmoscope to look into your dog's eye and assess its internal structures. If your veterinarian sees abnormal opacities in the lens, they will diagnose your dog with a cataract.

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It is important to note that not all hazy eyes are caused by cataracts. As dogs age, the lens often develops a cloudy appearance due to an aging change known as nuclear sclerosis or lenticular sclerosis. This is normal and does not cause blindness (see handout "Lenticular Sclerosis in Dogs" for information on this condition). Only your veterinarian can distinguish between a cataract and lenticular sclerosis.

Will my dog go blind?

If cataracts occupy less than 30% of the lens or if only one lens is affected, they rarely cause diminished vision. When the opacity covers about 60% of the total lens area, visual impairment often becomes apparent. If the opacity progresses to 100% of the lens, the dog will be blind in the affected eye. However, whether the cataract stays the same or progresses depends on the type of cataract, the dog's breed, and other risk factors.

Cataracts may be described as incipient, immature, mature, and hypermature.

- **Incipient**: So small they often require magnification to diagnose. These involve less than 15% of the lens and cause no visual deficits.
- **Immature**: Involve more than 15% of the lens and often multiple layers of the lens or different areas. The retina can still be seen during examination and visual deficits are typically mild.
- **Mature**: Involve the entire lens and the retina cannot be seen during examination. Visual deficits are often significant, with blindness or near-blindness often observed.
- **Hypermature**: The lens begins to shrink, and the lens capsule appears wrinkled. Lens-induced uveitis (inflammation within the eye) often occurs at this stage. This condition can lead to glaucoma (increased pressure inside the eye) if untreated. Glaucoma is a painful condition.

How are cataracts treated? Can anything be done to prevent my dog from going blind?

Veterinary ophthalmologists can surgically remove cataracts and restore failing vision caused by cataracts in your pet. Most pets have few complications and return to normal activity, running and playing within just a few days of the surgery. Your veterinarian can arrange a referral appointment with an ophthalmologist to further evaluate your pet's condition and determine appropriate treatment options.

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To date, no topical medications (i.e., drops) have been shown to delay cataract progression, although topical aldose reductase inhibitors (ARIs) have shown some effectiveness in cataracts brought on by diabetes. These drugs may be prohibitively expensive, however, and must be given every 8–12 hours with no interruption in treatment to be effective.

In dogs with untreated cataracts, especially mature or hypermature cataracts, medications such as corticosteroids or non-steroidal anti-inflammatory eye drops are used to decrease the inflammation within the eye. These medications will have no effect on the actual cataract, but they can help control inflammation to prevent glaucoma (a potential complication of cataracts and inflammation of the eye). Glaucoma does not respond well to medical treatment and often requires removal of the eye. For that reason, medical treatment of cataracts is often focused on preventing secondary glaucoma.

How old will my dog be if he goes blind?

Since cataracts often have a hereditary cause, cataract progression varies from breed to breed and dog to dog. Cataracts may develop relatively early in life in some dogs; in others, the first signs are detected when the dog is older, and progression is so slow that dogs still have reasonable sight well into old age. Cataracts caused by diabetes can progress quickly after the disease is diagnosed.

If the condition is hereditary, what can be done to prevent it from being passed on?

Affected dogs should not be bred; prevention is better than cure. Many veterinary ophthalmologists offer eye certification programs that allow breeders to screen their breeding stock and make sure they are producing disease-free puppies.