

BASIC INFORMATION

Description

A cataract is an opacity within the lens of the eye. Cataracts can be classified by their severity, age at onset, or underlying cause. *Incipient* cataracts are the mildest type, involve only a small portion of the lens, and do not affect vision. *Immature* cataracts affect 25-90% of the lens, may be severe enough to affect vision, and may be visible to owners. When the lens is completely opaque, a *mature* cataract is present, and vision is substantially decreased. Some cataracts shrink a little over time and become wrinkled. These *hyper-mature* cataracts may cause inflammation within the eye.

Based on the age at onset, a cataract may be described as congenital (present at birth), juvenile (onset at a few months to several years of age), adult, or senile (older animals). Cataracts are less common in cats than in dogs.

Causes

Congenital cataracts may arise from abnormal development of the lens or other ocular defects. Inherited cataracts are the most common type in dogs; they affect more than 40 different breeds and can arise at any age.

Other causes of cataracts include diabetes mellitus (sugar diabetes) in dogs, nutritional deficiencies (especially in the newborn), trauma to the eye, inflammation within the eye (such as uveitis), low blood calcium (rare), retinal degeneration, radiation therapy, and exposure to certain toxins or drugs (rare).

As they grow old, all animals develop a hardening of the center of the lens, which turns the lens a milky, gray-white color. This aging change is called *nuclear* or *lenticular sclerosis*. It is not the same as a cataract and is rarely treated.

Clinical Signs

Cataracts are often quite cloudy before vision is affected. Cloudiness in the eye may be detected first. Redness may also occur if the eye is inflamed. If the dog has sugar diabetes, then increased thirst and urination may be noted.

Diagnostic Tests

A complete eye examination is needed to confirm the diagnosis and may involve glaucoma testing and dilation of the pupil. Laboratory tests are usually performed to look for underlying causes. Simple lenticular sclerosis must also be ruled out.

TREATMENT AND FOLLOW-UP

Treatment Options

To date, there is no effective medical therapy for cataracts. Products available on the Internet have had minimal beneficial effects.

Cataracts that are small and do not affect vision may require no treatment. Not all cataracts progress, so monitoring may be the only initial recommendation.

For cataracts that are progressing and have reached the immature stage, surgical removal of the lens remains the most effective treatment. Not all eyes are candidates for surgery, however. In order for the eye to be operable, it must be free of inflammation, have a healthy retina, and have no evidence of glaucoma. In addition, any sugar diabetes must be well regulated prior to surgery, and the animal must be able to withstand general anesthesia.

Cataracts that are secondary to uveitis or retinal degeneration, associated with retinal detachments or other ocular defects, or complicated by other eye diseases (such as corneal edema, glaucoma, or tumors) are not often operable.

Your pet may be referred to a veterinary ophthalmologist to assess the cataract and determine what treatment options are available. If the eye is a potential candidate for surgery, two preoperative tests are usually recommended: an electroretinogram (ERG) to measure retinal function and an ultrasound of the eye to ensure that no retinal detachments are present. Anti-inflammatory medications may be given prior to surgery.

Most operable cataracts can be removed via phacofragmentation surgery. This is not laser surgery. It involves use of ultrasound to shatter and remove lens material through a small incision. If both eyes are affected and otherwise healthy, they are often operated at the same time, to avoid two general anesthetic procedures. If the lens bag (capsule) that is left behind is healthy, then an intraocular lens implant (IOL) may be inserted to improve close-up vision.

Follow-up Care

Postoperatively, medications must be administered several times daily for weeks to months, and numerous recheck visits are needed. Close monitoring for complications, such as postoperative uveitis, glaucoma, and retinal detachments, is important. Often the animal must wear an Elizabethan collar for 3-4 weeks while the incision is healing.

Prognosis

For uncomplicated cataracts in healthy eyes, the success rate of cataract surgery is quite high (85-90%). Success rates are lower in eyes that have been inflamed or affected by glaucoma and for cataracts that are hypermature. Cataract surgery is considered an elective surgery, because most animals do quite well with diminished or no vision.