

Cataract Surgery

Definition: A cataract is an opacification (clouding) of the normally transparent lens of the eye, which is situated behind the iris.

Why Did Your Pet Get Cataracts?

Most canine cataracts are inherited, and are found in many breeds such as the Poodle, Cocker Spaniel, Bichon, Husky, Schnauzer, Golden and Labrador Retrievers, and terriers. Other causes of cataracts include diabetes, trauma, and inflammation. Progression of cataracts is variable and somewhat unpredictable; decrease in vision to the point where quality of life is affected depends upon cause, age, and breed. A common phenomenon occurs in many developing cataracts where leakage of liquefied lens proteins from the cataractous lens into the rest of the eye results in an inflammatory reaction (lens-induced uveitis) which can result in serious complications including glaucoma (high intraocular pressure).

How Are Cataracts Treated?

There is no effective medical therapy for cataracts. Occasionally, cataracts in young dogs will resorb or dissolve spontaneously. If this process is suspected, cataract surgery may be delayed and the associated inflammation controlled with topical medications. Small, immature cataracts may not affect visual function and are managed by observation.

Inherited cataracts are, in most cases, bilateral and progressive. If your pet has cataracts in one or both eyes that are affecting vision, surgery may be considered. Surgical removal may be done in one or both eyes depending on the specifics of each patient. Before surgery is performed, depending on breed and the stage of cataract development, your pet may have two special tests beyond the ophthalmic examination to check the health of the retina, the nervous tissue of vision that lines the back of the eye. The ERG (electroretinogram) requires sedation or anesthesia; ultrasound may be performed with or without sedation so that the patient does not move the head or eyes. These tests are non-invasive and have virtually no risk associated with them. If your pet does not pass these tests, removal of the cataracts would not improve vision and therefore, surgery should not be performed.

Cataract surgery is elective and requires a significant time commitment on your part. Eye drops must be administered several times daily pre-operatively (two drops and one oral medication are started three days prior to surgery) and for about 6 weeks after surgery.

The patient may wear a protective plastic e-collar for 2 weeks after surgery, and your pet will not be able to be groomed or vaccinated during the 6 week healing period. Postoperative checkups are usually performed the week after surgery and then three and six weeks after surgery. At that time, medications may be gradually discontinued and long term rechecks are made at 6 month intervals. The success rate of cataract surgery is approximately 95%, but as with any surgery there are risks.

In cataract surgery, the entire lens is removed. Even if both eyes are affected, surgery in one eye may be adequate to restore functional vision and an acceptable quality of life to your pet, and may be recommended due to age or health concerns. Bilateral surgery may be advisable in young, active dogs or dogs that require enhanced vision for activities such as obedience, agility and/or hunting. Bilateral surgery may be performed at the same time or at 2-3 month intervals.

The surgery is performed under general anesthesia; manual or automated (phacoemulsification) extra capsular cataract extraction, is performed. Often, the ophthalmologist will remove cataracts in both eyes at the same surgery. After removal of the cataract(s) your ophthalmologist may suggest replacement of the lens with an artificial lens to obtain sharper vision as is the case in human cataract surgery. Cataract surgery in people is very similar, except spectacles, contact lenses or an artificial lens is needed to duplicate the function of the lens that has been removed. Since animals don't require the fine vision that these corrective devices provide, reasonable but not perfect functional vision results following cataract removal. However, a dog without a lens is quite farsighted. Replacement lens implants are available for dogs and improve the quality of vision in those animals whose owners elect this option. Events during surgery may make it impossible to implant an artificial lens. The surgery is performed as an outpatient procedure and your pet will spend 8-10 hrs in the hospital.

Your pet's vision will improve daily post operatively for the first few weeks. Four to six weeks later, healing is usually complete and medication may be discontinued at that time. Recurrence of cataracts or problems arising thereafter is unlikely.

Pre-operative instructions

1. Within 1 month of the surgical date a routine panel of blood work will be done to make sure that your pet is in good health (CBC/Chemistry). You should bring a copy of this blood work with you on the surgery day, your regular veterinarian can fax it to us (610-435-6378), or we can do this blood work here the day of surgery. Cost for pre-operative testing is additional to surgical costs.
2. You will be given 2 types of eye drops to begin administering to one or both eyes 3 days prior to surgery. Neopolydex and Atropine are to be given twice daily for three days prior to surgery, including the day of surgery. Atropine will dilate the pupil and the antibiotic-corticosteroid will prevent infection and minimize surgery associated inflammation.
3. An oral (pill or liquid) NSAID will also be given up to twice daily, starting three days prior to surgery and will continue several days post operatively.
4. No food is to be given from 12 am the night before. Water is allowed the morning of surgery. (diabetics should have their full meal and normal insulin dosage the morning of surgery)

Post-operative instructions

Mild swelling, redness, clear discharge and discomfort (occasional squinting) is to be anticipated in the immediate post-operative period.

The early period after cataract surgery is critical and the amount of care that you can provide will, in many cases, affect the success of the surgery. You will probably be using the same eye drops that you did before surgery. Use these drops as indicated on your referral report, usually 1-4 times daily, until the eye is healed- usually after 4-6 weeks. (Diabetics may need to continue eye drops longer).

There will also be a short course of oral antibiotics prescribed to prevent infection and continuation of the oral anti-inflammatory utilized pre-operatively:

1. Watch for any rubbing or scratching of the eye/s. Light rubbing is to be expected, especially after applying drops. Vigorous or persistent rubbing can cause problems and may require your pet wearing an Elizabethan collar. They can be purchased through us, your regular veterinarian or most major pet stores.
2. Vigorous play and exercise should not be allowed in the first 3-4 post operative weeks. Bumping the eye can break the tiny sutures that hold the incision together.
3. No grooming for 3 weeks.
4. No tight leashes, collars or choke chains for 4-6 weeks after surgery; a shoulder harness is recommended.

Post-operative rechecks

- Recheck exams will be optimally scheduled for the following times after surgery:
- 1 week, 3 weeks, 5-6 weeks, 6 month intervals thereafter
- The first recheck exam is included in the cost of surgery price; additional exams will require a re-examination fee.
- Sutures placed in the eye are absorbable. One or two sutures may be placed in the eyelids and may require removal 10-14 days after cataract surgery.

If you have any questions or problems arise, please do not hesitate to contact the Ophthalmology Department at 610-435-1553.

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