

CATARACT SURGERY IN DOGS



ANIMAL EYE SERVICES



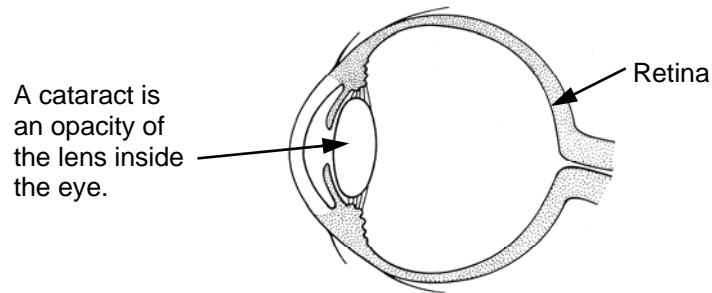
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What is a cataract?

A cataract is an opacity of a structure inside the eye called the lens. The lens is usually clear and transparent, and helps to focus an image onto the retina, at the back of the eye. The same process happens inside a camera, with the lens focusing an image onto the film in the back of the camera. Having a camera with a foggy lens is somewhat similar to having a cataract—both produce very poor images! In humans, cataracts are one of the most common causes of blindness, especially in third-world countries.



What causes cataracts?

Many things can cause cataracts, and often we cannot be 100% certain of the cause in each and every case. Most cataracts seen in dogs are caused by genes inherited from parents, however diabetes, injuries, inflammation, drugs and nutrition may also be to blame.

What are the signs of cataracts?

Owners of dogs with cataracts usually report a deterioration in their pet's eyesight. Poor eyesight may be noticed as an increase in 'clumsiness', a change in personality (lethargy or aggression), or a reluctance to go into the dark, among other things. Sometimes our clients notice a white area in their dog's pupil (the black circle in the middle of the eye), or their referring veterinarian notices the problem during a routine physical examination.

What can we do for cataracts?

In the past, people have tried all sorts of medications to clear cataracts. With our current medical knowledge, we know that surgery is the only cure. This doesn't mean that your pet *must* have cataract surgery, as some cataracts do not affect vision enough to warrant the procedure. You can discuss your pet's suitability for surgery with one of our eye specialists.

Why is cataract surgery recommended earlier rather than later?

Assessment and treatment of cataracts before they become too advanced is important for two reasons:

1. We need to assess the retina (the light sensitive membrane at the back of the eye), to ensure it is normal. This can be done more easily when the cataracts are not too dense, enabling us to see the retina with specialised diagnostic examination instruments.

If the cataracts are too dense we may need to do more specialised tests, such as **ultrasound** or **electroretinography** (ERG), to evaluate the structure and function of the back of the eye to ensure a successful outcome. These tests are often done on the same day that we intend to do the cataract surgery. If your pet fails either of these tests, then we may recommend that surgery not be performed as it will not improve vision for your pet.

2. If left in place for too long, a cataract can cause inflammation inside the eye. Sometimes medication can control the inflammation, and help control the associated pain. In the long term, however, the inflammation within the eye may become so severe that glaucoma (increased pressure in the eye) and uncontrollable pain may occur. In these cases, cataract surgery will not be an option for improving vision.

Also cataracts which have been present for some time can develop other problems such as opacity in the normally clear capsule surrounding the lens, or breakdown of the lens zonules which hold the lens in place. These secondary changes can reduce the chances of achieving the best outcome. Even if you decide not to have cataract surgery, regular rechecking by one of our eye specialists would be recommended to monitor the progression of the cataract, and the associated problems in your dog.

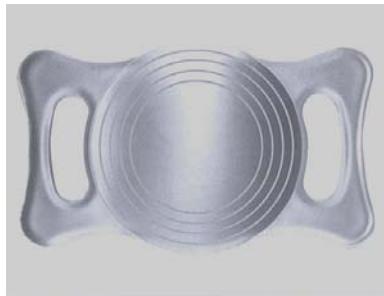
What does cataract surgery involve?

The surgical techniques used to remove cataracts in your pet are almost identical to those used in humans. The technique most widely used is called phacoemulsification, and uses ultrasound energy to break the lens into tiny pieces which are then sucked out of the eye. Most cataracts are removed through a small 'key-hole' incision 3-4mm wide in the top of the eye! Removal does not involve the use of a laser, as some people mistakenly believe.



Picture of a typical 'key-hole' incision phacoemulsification cataract surgery in progress. The hollow needle probe is shattering the lens into tiny fragments and sucking them out at the same time.

In most cases, after the lens is removed, the capsule surrounding the lens is left intact so that an artificial lens (IOL) can be inserted to correct the close distance vision back to normal. Not all dogs are candidates for an artificial lens. The decision to place an artificial lens depends on various factors, and is usually made by the surgeon during the procedure. Modern implants are made of a foldable plastic, and can be inserted through the same small 3mm incision.



Picture of a typical intraocular lens implant. The central circular section, called the optic replaces the normal light focusing function of the natural lens. The two extensions with the holes on each side are called haptics and hold the lens in place centred inside the lens capsule.

How successful is cataract surgery?

The success rate for cataract surgery in dogs has markedly increased over the last 10-15 years, mainly as a result of new research and improved surgical techniques. In general, our patients achieve good, long-term vision around 90-95% of the time. As with all surgery however, **it is impossible to give an unqualified 100% guarantee of success with no complications.**

What are the most common complications?

The most common complications after cataract surgery include:

- ongoing inflammation in the eye
- retinal detachments
- glaucoma.

Other less common complications include spontaneous bleeding within the eye, opacities in the lens capsule, and corneal disease. Usually the problems are not predictable and sometimes they do not occur immediately after surgery, often arising months or even years later. For this reason we recommend regular follow up visits after cataract surgery to try to identify these complications before they cause a poor outcome. These complications are similar to those seen after human cataract surgery.

Are there risks in having a general anaesthetic?

Although modern anaesthetics are generally very safe, very rarely complications and deaths can occur, and owners must accept this risk albeit very small. To minimise the chances of an anaesthetic complication, a detailed history of your dog's previous and current medical problems is taken before surgery, and the patient is evaluated clinically for any possible risk factors. For animals over 10 years old, we recommend that your veterinarian perform preoperative blood tests. For dogs with heart or lung problems, a referral to a specialist may be recommended to assess the relative risk of anaesthesia. Modern anaesthetic agents and techniques are used during the cataract surgery, and the patient is constantly monitored during both the procedure and the recovery phase of the anaesthetic.

What happens after cataract surgery?

Usually your pet will be discharged from hospital on the afternoon of surgery. It is important to keep your dog **quiet** for the first two weeks afterwards, and **limit exercise** to strict leash walks, preferably with a chest harness (throat collars can increase the pressure in the eyes). Your dog should be not allowed to play with toys or balls, romp with other dogs, or travel with its head out of a car window. At first, you may be using topical medications up to **4 times daily**. Over time the frequency of medication required decreases.

When we do send your dog home, it is essential that you use the medications as prescribed. Failure to do so, even for as little as a day or two, can result in uncontrolled inflammation and even glaucoma or other problems inside the eye.

The first rechecks are usually at **one** and **three** weeks after surgery. Subsequent revisits will depend on the progress of the case, but are usually at 6-12 monthly intervals.

When will my dog see after cataract surgery?

If all goes well, your pet may have a noticeable improvement in vision as early as the day after surgery. Some dogs may, however, take a few weeks to fully regain their vision due to the amount of post-operative inflammation present in the eye.

What is the cost of surgery?

The prices charged for cataract surgery reflect the costs of the highly specialised equipment used and the level of expertise required on the part of the surgeon. The disposable items and prosthetic lenses used during surgery can be expensive, and have to be imported from overseas. However, we are constantly striving to keep these costs within reasonable limits so that your pet can enjoy a better quality of life by being able to see again.

Our veterinary eye specialists will endeavour to give you as accurate an estimate of costs as possible before surgery. Please understand however that this is an estimate only and the final cost may vary slightly depending on circumstances at the time of surgery.

The estimated fee includes pre-operative tests where necessary, anaesthesia, theatre fees, surgical fees, disposable theatre items, drugs, and hospitalisation. The first two rechecks after cataract surgery are included in the estimate. After this time, a standard minimal revisit fee will usually apply. Further drugs prescribed at rechecks after surgery will also be at additional cost. In the unusual event of complications, we will always attempt to keep any associated additional costs as low as possible.

Please feel free to discuss any further questions you may have about cataract surgery with one of the eye specialists at Animal Eye Services.