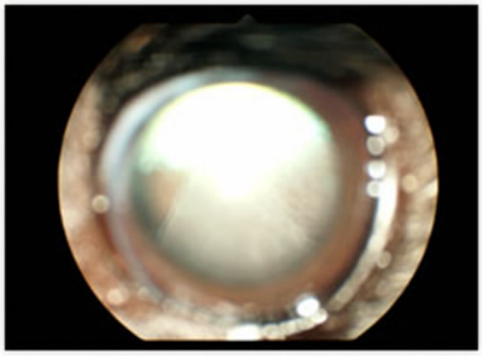
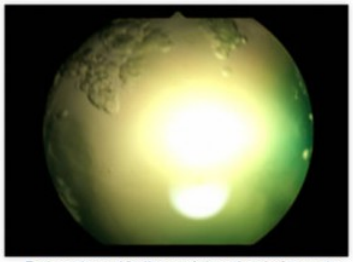


Advanced cataract appearing as a "blue" pupil

What is cataract?

Cataracts are opacities in the lens which is the part of the eye used to focus. This is normally a clear structure through which light passes easily. Small opacities may not have any effect on vision but can be an indication of inherited disease in the dog. Larger opacities will affect vision and may cause total blindness when they become mature. When large cataracts are present the pupil has a white cloudy appearance. Some old dogs develop a slight cloudiness due to hardening of the lens. This nuclear sclerosis and can be confused with cataract. It does not affect vision. Cataracts are often inherited and can occur at any age. Young pups may be affected but most cataracts are seen in older dogs. Diabetic dogs are very likely to develop cataract unless control of the disease is very good.

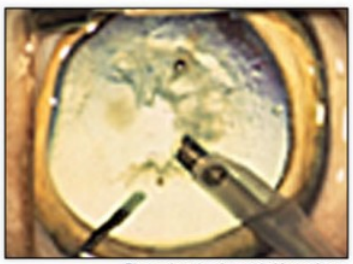
Treatment for cataracts



Early cataract in the peripheral anterior cortex

Providing vision is not too severely affected treatment is not required. However once vision is lost due to mature cataract, or where the rapid expansion of cataract causes inflammation, then removal of the lens is the preferred option. This is done by phacoemulsification. This is the fragmentation of the crystalline lens material using high frequency ultrasound which liquefies the lens and allows aspiration of the emulsion through the hollow ultrasonic handpiece. Surgery can be done through a small incision at the edge of the cornea so that the wound does not affect vision. Once the cataract is removed from the lens capsule it is often possible to insert a foldable artificial lens (IOL) into the empty capsule. This gives improved vision by restoring the normal focal length of the eye. However even without an IOL vision should be good enough for a dog to lead a normal life. The procedure is performed under magnification using an operating microscope and both this and the phaco machine are expensive pieces of equipment. For this reason cataract surgery is expensive.

Success of surgery



Phacolendectomy taking place

The outcome of surgery is generally good. It is usually possible to restore adequate vision even though it is never perfect vision. However a small percentage of cases have problems during or, more usually, after surgery which can cause irreversible blindness. This may be due to the development of glaucoma, post operative inflammation, haemorrhage into the eye

or retinal detachments. It is because of these potential problems that we advise not operating until there is serious vision loss in the eye. Contrary to this it is better to operate before the cataract becomes old and hard as these lenses are then difficult to emulsify and the outcome may not be so good. The timing is therefore important and it is always better to have cataracts seen by an ophthalmologist at the Animal Eye Centre early rather than late.

Procedure for cataract treatment

Clients are referred to the Animal Eye Centre by their own vets for assessment of the patient's eyes. We prefer to see them as soon as cataracts are suspected rather than wait until the animal is blind. This will often allow examination of the retina which is the nerve layer at the back of the eye that is the "seeing" part of the eye. Some cataracts occur secondarily to disease of the retina and in these cases removal of cataract may not be beneficial. It is therefore useful to examine the eyes before the cataract is mature when the retina cannot be seen. Examination will normally require dilation of the pupils to allow better examination of the inside of the eye. This involves application of drops to the eyes and will take about twenty minutes to be effective. Where the retina cannot be visualised it may be necessary to examine the eyes using ultrasound and this will be done after admission and sedation of the dog. Also some breeds which are prone to glaucoma may need to be examined using gonioscopy a nd this may also require sedation. Providing the case seems suitable for lendectomy then steroid drops will be prescribed to be used prior to surgery to reduce the risk of inflammation causing problems. You will be asked to have a full blood screening test done at your own veterinary practice who should also assess the dogs general fitness for a relatively long period under general anaesthesia. Surgery will then be scheduled to take place at the Animal Eye Centre usually two weeks after initial consultation. Admission will be at about 8am on the day of surgery to allow preliminary medication before surgery. Patients are routinely hospitalised until the following day to allow monitoring for increased pressure and/or post operative bleeding. Most case are allowed home the next day. Follow up treatment is critical to control post operative inflammation and you will need to be seen again after one week, three weeks and then every three months. After one year check ups may be advised annually or every six months. Medication with eye drops may be required for a year or more after surgery.

Complications after cataract surgery

Complication may occur during surgery. Despite using the most advanced anaesthetic techniques and monitoring equipment anaesthetic deaths can occur. These are extremely rare. However post operative complications occur in about 10% of cases and these may mean that vision cannot be restored to one or both eyes. Glaucoma may cause pain as well as total blindness and this may mean that further surgery is required to control pain. Retinal detachment will prevent the eye from seeing although it may remain sensitive to light. Retinal detachment can also develop into glaucoma. Regrowth of lens material can occur months after surgery with lens fibres growing over the remaining capsule and causing vision to deteriorate. This may require a further surgical procedure to aspirate the cells and restore vision. Lens fibre regrowth can also cause inflammation within the eye known as lens induced uveitis which may require long term steroid medication.