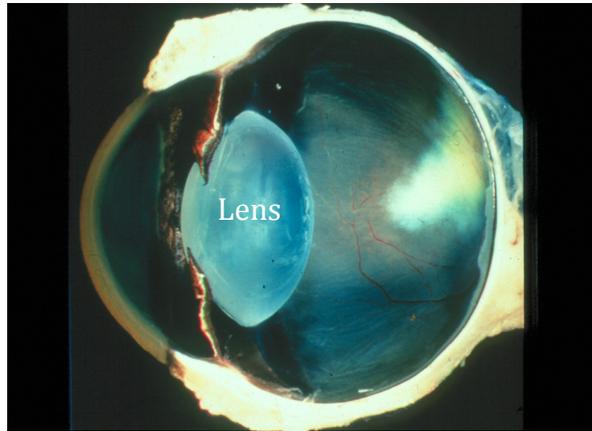




Cataracts and Phacoemulsification

What is a cataract and what is the cause?

A cataract is an opacity of the lens inside the eye. Not all cataracts lead to significant visual loss but, if they are severe, blindness can result. As cataracts progress the eye can become a cloudy blue or grey colour, leading to reduced vision and, in some advanced cases, also inflammation and other problems such as glaucoma.



There are many different causes of cataracts. Some are inherited (genetic) in certain breeds, but sometimes they can be secondary to other conditions such as diabetes, intra-ocular inflammation (uveitis), trauma, retinal disease, or old age. Often the cause of the cataract is not identified (idiopathic).

How are cataracts treated?

Some minor cataracts that do not cause significant visual loss do not require treatment. Instead careful monitoring for progression is generally advised in these cases. Cataract surgery is advised if a cataract progresses to lead to significant loss of vision. Regular monitoring is vital because if progression is noted, early surgical intervention leads to the best success rates.

There is no medical treatment for cataracts, but sometimes there is concurrent inflammation in the eye. This may require anti-inflammatory drops to prepare the eye for the operation or to prevent other potential problems that can arise if cataracts are not removed (e.g. glaucoma).



What is involved in cataract surgery?

Cataract surgery in animals is performed under general anaesthesia and utilises microsurgical techniques performed under an operating microscope. Cataracts are routinely removed by an operation called phacoemulsification (phacos = lens; emuls = to milk out). This operation involves the use of ultrasound energy introduced into the eye by a hand piece about the size of a pen. This instrument is used to break-up the solid lens material into a liquid which is then aspirated from the eye. As the entire lens can be removed in this way the incision required to remove the cataract is very small (about 2.5mm long) which leads to much better success rates than older techniques in which the entire lens was removed whole, which required a much longer incision.



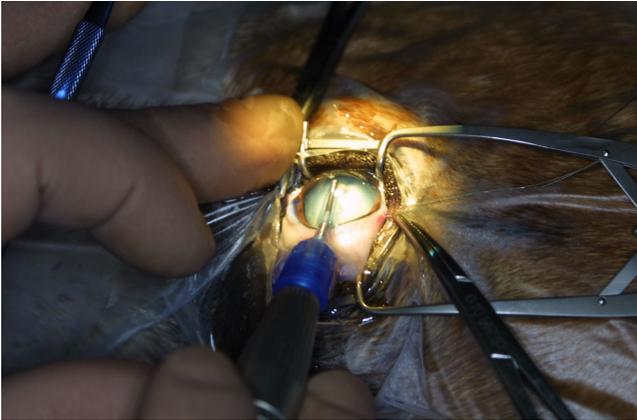
At Perth Veterinary Ophthalmology we use an AMO Signature phacoemulsification unit, one of the most advanced units available. As a result of this we expect a success rate of between 90 to 95% for the return of useful vision following routine phacoemulsification.

Following removal of the cataract an implant lens is generally placed into the eye. These intraocular lens implants (IOL's)

restore normal vision to the eye and are



routinely placed in human eyes following removal of cataracts. However, while it is ideal to place an IOL, not all eyes are suitable for an implant and the decision as to whether or not to place an IOL is made at the time of surgery.



Surgery at Perth Veterinary Ophthalmology is performed as a day patient procedure. Animals must have no food from 9pm the night before the operation and should have nothing to eat on the morning of the operation. Diabetics should also have no breakfast and should have half their usual morning dose of insulin

on the morning of the operation. Your pet may drink freely up until the time of admission to Rivergum Referral Services. In some cases you will be asked to administer different types of eye drops at home on the day of the surgery to prepare the eyes for the operation, generally starting at 7am and again at 7.30am. Your pet needs to be admitted between 8am and 8.30am on the day of the operation and is generally able to come home the same afternoon between 3 and 5pm.

After the operation eye drops will be required to be applied to the eye(s) four times a day for a month, generally then reducing to twice a day for the following month, and then once a day for the third month. Most animals can then come off treatment, but in rare cases of grumbling inflammation, treatment may be required for longer periods or even indefinitely. Animals also generally receive anti-inflammatory treatment by mouth for a month and antibiotics for 5 days.

Routine post-operative re-examinations are generally performed the next day, then a week later, a month later and three months later. At Perth Veterinary Ophthalmology the routine follow up examinations over the 6 months following the surgery are included in the price of the operation.

What are the risks involved in cataract surgery?

Animals require a general anaesthetic to have their cataracts removed.

While it is important to appreciate that every anaesthetic carries a risk, with modern anaesthetic agents and monitoring facilities the risks associated with general anaesthesia are very small.

Although we expect a 90-95% success rate, this does mean that around 5% of patients may not have sight successfully restored. There are many reasons why vision may not be restored by the surgery. Whenever surgery is performed inside the eye the operation will cause inflammation inside the eye. Dogs' eyes get much more inflammation following the operation than human eyes and this is why the eye drops and other medications are so important following the operation. If an eye reacts badly to the surgery it can get a lot of inflammation which can lead to glaucoma (high pressure in the eye). If this does develop it can usually be controlled by other medications. However, if the glaucoma is not able to be controlled this can lead to blindness and in some rare cases even loss of the eye (just as in some unfortunate situations in humans). However, this is extremely rare and not something to panic about or dwell on, but it is obviously important to know beforehand that these risks do exist. Glaucoma is the worst outcome for a post-operative eye, but other conditions can reduce the success rate, such as wound breakdown, retinal detachment, scarring and adhesions inside the eye, and clouding of the cornea. In some cases these situations can be resolved by a second procedure at extra cost. Although it is important to know these risks, without doubt most animals have good outcomes and have excellent vision post-operatively.

What is the cost of the surgery and what is included and not included in the price?

At Rivergum Referral Services we believe in providing the best treatment possible for your pet. The equipment and high quality disposables used during the operation are exactly the same as you or I would have if we required this surgery. Due to the equipment and disposable costs, phacoemulsification is an expensive surgery. A final quote can only be determined after examination of the eye, discussing various cost options and planning a management strategy. Options do exist and costs do vary depending on budget, but at Perth Veterinary Ophthalmology we do not compromise on providing the highest quality outcome for your pet's eyes. This surgery can only be done once so it must be done with high quality materials and using the latest technology to maximise outcomes. Lower

cost options have a lower success rate and may in fact put the eye itself at risk, and a poor result in the worst case scenario can lead to removal of the eye.

The estimate provided by us includes the operation itself, all the medications dispensed on the day of the operation, and routine re-examinations on the day after surgery, at one week, one month and three months after the surgery. As it is not possible to predict the need for other medications after the operation (such as how many eye drops will need to be dispensed etc) the cost of medications other than those supplied on the day will incur extra expense. Consultations other than the routine re-examinations within the first six months after the surgery may also incur a re-examination fee.