

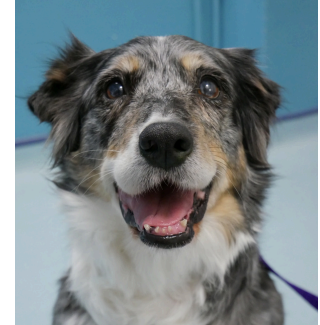
CATARACTS

What is a cataract?

A cataract is when the lens goes white. The eye is like a camera and has a lens. The lens helps to create a focused image on the retina at the back of the eye. In a camera, the lens is at the front but in an eye, the lens is located deep inside the eye. The lens is like a transparent Smartie in shape and size! It is protected by a lens capsule, which is like a clear ClingFilm bag that covers the front and back of the lens. So, a cataract is like a solid white Smartie, inside a clear ClingFilm bag.



FLISS
BEFORE
+ AFTER
CATARACT
SURGERY



How is a cataract diagnosed?

Depending on the size of the cataract, the eye might look cloudy or white. You might notice that the eyes look cloudy and your pet may show signs of reduced vision (the effect on vision varies depending on one or both eyes being affected). There are other causes of eye cloudiness that mimic cataract. Common examples are age-related changes in the lens, and a cloudy cornea. Your vet will be able to help but sometimes additional help is needed from an ophthalmologist.

What causes a cataract?

Common causes include age (senile cataracts in older animals), breed (some breeds are predisposed to cataracts and some breeds have hereditary cataracts), diabetes mellitus, trauma, and retinal problems (e.g. generalised progressive retinal atrophy, GPRA). In many cases, no specific cause is identified – such cataracts are called ‘idiopathic’.

What is the effect of a cataract?

Cataracts have two important effects. Firstly, they impair vision and may cause blindness. And secondly, they cause inflammation inside the eye.

The effect on vision depends on the size of the cataract. If the cataract is small, vision might appear normal. If the cataract affects most of the lens or the whole lens (a mature or total cataract), then the eye will be blind.

The inflammation inside the eye is called ‘uveitis’, or ‘lens-induced uveitis’. This happens to some extent with all cataracts but is generally a problem with cataracts that form quickly. Common examples are diabetic cataracts and cataracts caused by trauma.

Is there any treatment for cataracts?

Yes, surgery is an option in many patients. There is no medical treatment to make cataracts disappear. Eye drops are often prescribed for cataracts, not to make them disappear, but to help to control any related inflammation (the uveitis mentioned above).



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Cataract surgery – what is involved?



The operation is very similar to that in people and is called **phacoemulsification**.

‘Phaco’ means lens, and ‘emulsification’ means to break into small pieces. The technique is like a miniature jack-hammer combined with a Hoover to break the cataract into small pieces that are then removed.

The eye is opened by a small incision/cut (2.8mm) in the cornea (the cornea is the transparent window at the front of the eye). A round window is made in the capsule (the ClingFilm part) to access the cataract, which is then removed by the phacoemulsification process. (In a nutshell, the Smartie is removed from inside the ClingFilm bag!) The original lens is replaced by a new artificial lens implant – the lens implant is injected into the eye, is held safely within the capsule and stays there permanently.

What will my pet need?

BEFORE THE SURGERY

Your pet will need to be assessed by the ophthalmologist to see if surgery is an option. This is the Initial Referral Consultation. It is a one-hour appointment for a detailed assessment of your dog’s eyes, and a detailed discussion.

Two things are assessed: the eyes, to see if the cataracts are suitable, and your pet, to see if he/she is healthy enough for the surgery. Additional tests are required but these vary between patients. Almost all patients have an ultrasound scan of the eyes, usually on the day of the surgery. Some patients have electroretinography (a test for retinal function), which is also usually done on the day of surgery. Some patients need tests to make sure that they are healthy for the general anaesthetic; these are most commonly done in patients over 8 years old and diabetic patients. Tests include a routine blood test, urine test, and blood pressure measurement. These can be done by your own vet or by the ophthalmologist.

A small number of patients need a dental before surgery because poor oral hygiene is a risk factor for infection in the eyes. This would usually be done by your own vet and only if recommended by the ophthalmologist.

AROUND THE SURGERY

Your pet will need a general anaesthetic and to stay in the hospital for one to two nights. The length of the general anaesthetic varies but is typically between one to two hours, depending on surgery being done on one or two eyes. Routine operating days are Mondays and Wednesdays. Your pet will be admitted the afternoon before or at 8am on the day of surgery, depending on our schedule that week.



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DO I NEED TO BRING ANYTHING FOR THE SURGERY?

We provide everything but you are welcome to bring a bed, favourite toy and any special food. Please bring all medication. Please bring enough for two to three nights in the hospital (as above, most dogs stay in the hospital for one to two nights, depending on when they are dropped off, and on their progress after surgery).

AFTER THE SURGERY

In a nutshell, rest and lots of eye drops! The first two weeks is the most intensive time for eye drops, check-ups and the initial healing process.

Your pet will need:

- strict rest for two weeks – this means toileting in the garden or on very short walks for dogs, and staying indoors for cats
- to wear a protective collar to stop eye rubbing for two weeks
- harness and lead rather than collar and lead (to reduce pressure on the neck, which can cause affect the pressure in the eyes)
- medications by mouth, usually twice daily (morning and evening)
- eye drops – most patients have 3-4 different eye drops and the total number of drops can be 10-12 applications per day; the drops are done in the day time only and we provide clear instructions and a medication chart to help with this; we understand that the eye drops regimen sounds daunting but most patients get on well with them, and we can simplify the regimen if we need to
- follow-up appointments – see below

This sounds complicated – will I be told what I need to do at home?

Yes! Your pet will have a discharge appointment with an ophthalmology nurse or vet. They will explain everything from exercise, cleaning the eyes, medications, and what to look out for. They will be able to answer any questions.

Is the surgery painful?

No. The morning after surgery, the operated eye(s) should be comfortable and open. Your pet will have anti-inflammatory and painkiller medication at the time of surgery and at home. Pain is abnormal and we would keep your pet in the hospital for extra monitoring and treatment if necessary.

When will my pet be able to see after the surgery?

In theory, the operated eye(s) should be able to see straight away. But, on the day of surgery, your pet will be sleepy after the general anaesthetic and will have had a lot of eye drops and so we cannot really assess vision properly. We generally assess the vision the morning after surgery – we would expect most eyes to be visual at that time but some eyes need a few weeks for the vision to settle.



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Follow-ups

Cataract surgery is a bit like a hip replacement operation – it is a routine operation but is also a complex operation. It is essential that your pet returns to The Ralph for post-operative check-ups with an ophthalmologist to ensure that the healing is progressing well.

The number and timing of the check-ups vary but the typical schedule is three to five days, one to two weeks, four weeks, eight weeks, three months, six months. We typically check patients every six months in the first two years, and then annually. Patients are never completely 'signed off', long-term follow-ups are always recommended.

NB most post-operative check-ups are done on an out-patient basis over a 30-minute appointment. Some patients need a **special injection** into the eye to remove fibrin – fibrin is the eye's equivalent of a blood clot. This is usually done under sedation, so may take 1-3 hours. This is most likely to be needed at the first or second check-up, so please bear this in mind.

What is the success rate and what can go wrong?

The average success rate is 90% for the first year after surgery, and 80% after the second year.

The complications affect 10-20% of eyes. Minor complications include stitch complications, corneal ulcers, a temporary high pressure inside the eye and excessive inflammation. More serious complications include glaucoma (a long-term high pressure inside the eye) and retinal detachment. In theory, cataracts cannot come back because the lens is removed, but there is a form of scar tissue called 'after-cataract' that can mimic the cataracts re-forming. This is more common in young patients.

Some complications simply need the treatment to be adjusted, some need more surgery, and some cause blindness or even loss of the eye itself. It is important to remember that eyes with untreated cataracts that do not have surgery can also get similar complications. In other words, there are risks with and without surgery. In fact, the risk of complications is about four times greater in eyes that do not have surgery.

Some breeds and some cataracts have a higher risk of complications than normal – the ophthalmologist will discuss this with you at the time of the initial consultation or when needed.

Some patients cannot have a lens implant placed for a number of reasons. Having no lens implant means that your pet will be able to see, but close-up or near vision will be blurred. This sounds negative but most pets have better vision after cataract surgery without a new lens, and the eye also heals and settles more quickly without a lens (the lens implant is foreign material inside the eye).



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My dog is diabetic – how does this affect the options?

Diabetic cataracts are very common in dogs and they are routine patients for us. Diabetic cataracts typically form very quickly (often over two weeks) and cause extra stress from the sudden blindness and sometimes marked inflammation (uveitis). Anti-inflammatory eye drops are usually prescribed prior to the surgery date. Diabetic patients often develop dry eye as well. Dry eye usually needs lifelong treatment and increases the risk of corneal ulcers.

We will advise you when to feed your pet, and give insulin, on the day of surgery (or the day before). Some patients have their breakfast and insulin as normal, and others have no breakfast and no insulin. It depends on our schedule and what time of day the surgery is planned for. It is important to bring the insulin and needles when your pet comes in for surgery. It also helps to write a note to show the ward nurses your routine schedule at home.

We will manage the insulin and feeding when your pet is with us in the hospital, but we try not to change the routine, which is under the care of your own vet.

What are the fees involved?

The ophthalmologist will discuss the fees with you at the time of the consultation, and can email you a detailed estimate. In general, the fees can be divided into three parts: the initial consultation, the surgery (including the general anaesthetic, the surgery itself, hospitalisation and drugs to go home with) and the after-care (ongoing medications and follow-ups).

I want to go ahead – what do I need to do?

Please tell the ophthalmologist at The Ralph that you wish to proceed and a date for surgery will be arranged. The ophthalmologist will send your vet a detailed report after the initial consultation so that they are 'in the loop'.

