

EVERYTHING EYES

Dr Steve Heap has racked up heaps of “eye surgery miles” over the past 26 years at McMaster & Heap Vet Practice. Originally a 1992 Massey Vet School graduate, Steve had no idea his future path would be restoring sight in pets and operating through a microscope. During his time at Massey, Steve enjoyed dairy cows, farm management and pig husbandry. A two year working holiday to the UK locked in “all things eyes” as Steve’s special interest and he became certified as a Veterinary Ophthalmologist in 1997.

When we purchased our practice on April Fools Day 1999 (formerly known as Rozens Vet Clinic), little did we both know how important ophthalmology would be. There was no vet in the South Island offering an Ophthalmology service, so Steve was busy from the get go. The majority of Steve’s patients are cats and dogs but he’s seen a variety of animals including hawks, yellow eyed penguins, reptiles, endangered frogs, lions, horses, sheep, llamas and many more.

Steve performing cataract surgery on a Hoiho



As well as seeing medical and surgical referrals, Steve is also a big believer of eye testing specific breeds of dogs to detect inherited lesions. By detecting these conditions early on in the disease process, decisions can be made on how to manage these patients long term and whether breeding from the patients is a viable, safe, ethical option. Different hereditary conditions Steve checks for include Cataracts, Progressive Retinal Atrophy, Retinal Dysplasia, Distichiasis, Persistent Pupillary membranes and Goniodysgenesis. Steve travels from Auckland to Invercargill eye testing.

Steve is going to talk about some interesting surgical eyes he sees on a regular basis.

“NON HEALING” ULCERS IN DOGS

Some dogs cornea’s (clear window of the eye) are not made very well. If this is the case they can develop a painful surface ulcer that doesn’t heal. Boxer dogs are the most famous for this. Sometimes these ulcers can take months to heal or not at all!

If a dog has one of these ulcers, known on SCCEDs, Boxer ulcer or recurrent epithelial erosion, then a procedure to scratch the eye with a needle (grid keratotomy) or an abrasion with a diamond burr (Alger brush) is required to heal them. These procedures heal 80-90% of these troublesome ulcers.



Non healing superficial ulcer

If this doesn’t work then a general anaesthetic and a full surgical procedure called a lamellar keratectomy can sometimes be required.

DIABETIC CATARACTS IN DOGS

Nothing feels better than restoring sight to a blind dog and essentially this is what cataract surgery does. Steve’s most common cataract surgery is in diabetic dogs. Nearly all diabetic dogs develop cataracts - they often come on very quickly and dogs can go blind within a week.



Bear, 3 days post cataract surgery doing extremely well

Bear, a 9 year old terrier has diabetes and lives in central Otago and came up for bilateral cataract surgery in early April. This is him 3 days after surgery - he is doing very well. Although he still has his Elizabethan collar on he can see and is ALOT happier in himself. He is keen to go for walks and pulling his mum around. Before surgery he was very quiet and had lost his confidence - he was scared of bumping into things and making mistakes.

His mum is in for a big job for the next few months, putting numerous drops in his eyes. There is a very good chance he will have functional vision for the rest of his life after the surgery.

ENTROPION

Entropion is a condition where the eyelids roll in causing hair to rub on the eye. Shar Pei dogs are the classic example of the - with all their “rolls”.



Matilda post entropion surgery coping well with the pink bucket on her head

“Matilda” a 70kg 4 year old St Bernard presented to Steve with a watery, red, sore eye. She had a nasty conjunctivitis in the right eye and had been rubbing this eye. She had 20/20 vision and was in great health otherwise (who wouldn’t be consuming 3 roast chickens a day, minus the bones, and the best steak).

Her lower eyelid were rolling in towards the cornea her eye was painful and inflamed. Her tear production was normal.

Steve performed bilateral entropion surgery to correct the lid issues. All was going exceedingly well until Matilda’s 70 kg brother Casper, decided to muck around and leap on her head, causing some sutures to pull out. Steve was able to replace these sutures under sedative. So far all is looking good with her eyes.

BRACHYCEPHALICS AND THEIR EYES

Common brachycephalic breeds of dogs include pugs, French bulldogs, English bulldogs etc. Because of their face conformation, they often have a number of health problems including eye issues.

This photo shows a pug with very large eye openings which can cause exposure, a large nasal fold that will be pushing up and rolling his inner eyelids so hair is rubbing on his cornea. He will also have a poor blink (so his lids don’t cover his corneas), which can result in corneal ulcers. This dog also has strabismus (crossed)—his eyes are not aligned very well and they are pointing to the side. Despite all of this his eyes are looking comfortable and “healthy” in this photo.



Brachycephalic Pug with large eyelid openings and strabismus

CATARACT IN A YELLOW EYED PENGUIN (HOIHO) FOR DUNEDIN WILDLIFE HOSPITAL

“Sandy” as he’s affectionately known, is a total success story from start to finish. Steve removed a cataract back in 2023 as he had suffered a nasty injury resulting in the cataract. This is a very serious injury in a penguin as they need perfect vision to hunt for food and avoid predators.

Dunedin Wildlife Hospital had their own vet perform the anaesthetic (a little outside our comfort zone) and Steve successfully removed the cataract at McMaster & Heap. After a period of rehabilitation, Sandy was released back to the wild. He is still alive and doing well as he’s been spotted several times when he comes back to moult.



Sandy looking good 2 years after cataract surgery

This is possibly the first wild living penguin to be successfully released post cataract surgery - an amazing outcome for this endangered species, where every single individual bird is critical in the battle to prevent extinction.

CORNEAL SEQUESTRUM IN PERSIAN CATS

These black “scabs” on the surface of the eyes only occur in cats. Classically Persian cats have been the most likely to get these but recently Burmese cats have become the most frequent victim. The corneal sequestrum occur because of chronic irritation - usually non healing or infected corneal ulcers.



Conjunctival pedicle flap in a cat



Bilateral corneal sequestrum in a Persian cat

These eyes usually require surgery to fix them and prevent recurrence. Often a conjunctival pedicle flap is placed, a tricky procedure using an operating microscope and very small suture. Steve has performed many of these and return to full vision is excellent.

If anyone has a difficult eye problem in their pet, Steve would love to help. He loves a challenging case and enjoys solving problems.

Dr Michele McMaster, April 2025



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