

THE
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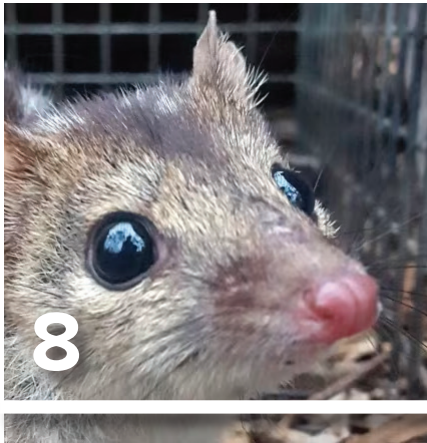
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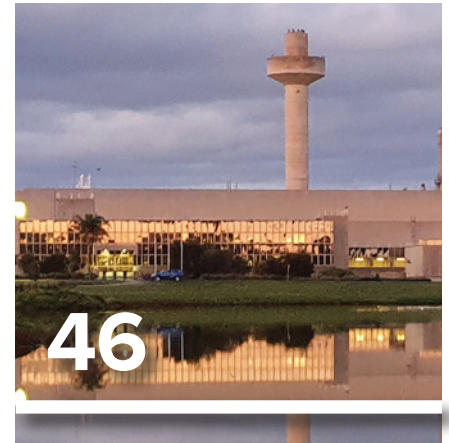
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THE AUSTRALIAN VETERINARIAN

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WHY HORSE DENTAL EXAMS REQUIRE SEDATION

YOUR VETERINARIAN NEEDS A GOOD LOOK INTO YOUR HORSE'S DEEP, DARK MOUTH TO PERFORM A THOROUGH DENTAL EXAM. THE ANSWER? PROPER SEDATION.

You can't exactly promise your horse a fun sticker or a toy at the end of a dental visit to get him to behave. No, if you want a dental exam to be not only safe (for both horse and practitioner) but also worthwhile, sedation is a necessity.

"You need to get equipment back in the mouth if you're going to do a complete dental exam and see all the structures, and you just can't do that without sedating the horse," said Jeff Reiswig, DVM, Dipl. AVDC (Equine), who founded Equine Veterinary Dental Services in Newark, Ohio.

Equipment includes a mirror and sometimes an endoscope, as well as a mouth speculum that holds the horse's jaws apart, he said. "You need a quiet horse so you can see the detail. Without sedation they may throw their head, which makes it dangerous for the horse and veterinarian."

of procedures we're carrying out (which could cause more or less noise or discomfort)."

Even though each sedative has a labeled dosage, each horse will have an individual response to the drug. Still, there's little risk even if the horse becomes excessively sedate and ataxic (wobbly), he added.

Sometimes clients ask, 'How much would you charge to just take a look without sedating him to see if he needs anything?' I always tell them it's free of charge—because that's about how much that kind of exam is worth. It might let me point out something obvious that needs treatment, but it would never let me determine that he doesn't need treatment.

"Sometimes clients ask, 'How much would you charge to just take a look without sedating him to see if he needs anything?'" he said. "I always tell them it's free of charge—because that's about how much that kind of exam is worth. It might let me point out something obvious that needs treatment, but it would never let me determine that he doesn't need treatment."

Dr. Jeff Reiswig

Sedative Safety and Administration

Your veterinarian will select the best drug and administration route for your horse, said Reiswig. Those drugs include alpha-2 agonists such as detomidine, xylazine, and romifidine.

"These drugs are incredibly safe," he added.

That safety depends on qualified administration, however, which is why sedation necessary for dental exams and care can only be carried out by a veterinarian or a licensed veterinary technician under a veterinarian's direct supervision—meaning the vet must be present. "Nonveterinarian dentists lack the authorization to provide the necessary tranquilizers, and they have variable amounts of education about a horse's oral anatomy and physiology," he explained.

Amount and Length of Sedation

The amount of sedative depends on the horse's size but also his temperament, said Reiswig. "If they're more easily excited then they might need a stronger dose to keep them calm," he said. The objective isn't to "knock the horse out," but rather to keep him quiet and anxiety-free for the approximate half-hour the veterinarian is carrying out dental care.

"The horses will stay awake and alert but relaxed," said Reiswig. "But the nature of sedation is that if the stimulus is high enough, they can arouse out of that relaxed state. So we need to take into consideration the horse's basic temperament as well as the kinds

Some sedatives last 20-30 minutes when administered intravenously; others a bit longer. If they're given into the muscle—which is necessary when the equid is "too wild" to hold still for a safe needle prick into the jugular vein—they'll require higher quantities that will have a longer-lasting effect.

Take-Home Message

Examining a horse's mouth without sedating him is "essentially pointless," said Reiswig, because such an exam would be too limited to give reliable information about the horse's dental health.

Source: The Horse





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VETERINARIANS BACK GOVERNMENT MOVE TO BAN PRONG COLLARS ON DOGS

Source: *The Australian Veterinary Association*

The Australian Veterinary Association (AVA) has strongly endorsed the Tasmanian Government's move to ban the use of prong collars on dogs and challenges all Members of Parliament to support the amendment.

These collars are designed to inflict pain, discomfort or fear - they lead to both physical and psychological harm to the animals.

"The use of prong collars does considerable harm to dogs and their use is completely unnecessary," said AVA Tasmanian Division President Dr Rhianna Booth.

"Modern animal welfare science gives us better training techniques to use with our pets. These techniques are effective and support the wellbeing of our pets rather than harming them."

Positive reinforcement (reward-based training) has been shown to be more effective than punishment.

The use of punishment is associated with increased problem behaviours, reduced animal welfare, and it damages the dog-owner bond.

It is already illegal to import prong collars into Australia, they are banned in Victoria, and the AVA wants to see their use banned across the country.

Tasmania is set to be the next state to ban the use of these collars as the Parliament considers the Animal Welfare Amendment Bill 2022.

"The Tasmanian Parliament needs to prioritise the wellbeing of our pets and support these moves to end the use of these collars."



THE FUTURE OF U-VET WERRIBEE ANIMAL HOSPITAL

Source: *The University of Melbourne*

The University of Melbourne has today confirmed changes regarding the future of the U-Vet Werribee Animal Hospital (U-Vet), following a four-week consultation period with U-Vet and Melbourne Veterinary School staff.

After considering feedback received during consultation, the University has made the decision to cease operating U-Vet, effective Saturday 24 December 2022.

This change has been necessitated by a number of ongoing operational challenges that make operating U-Vet unsustainable for the University. These include a reduced case load, restricted opening hours due to an inability to fill rosters, challenges in the attraction and retention of staff compounded by a shortage of veterinary staff in the market, and a significant fall in revenue over several years as net costs have more than doubled.

The University thanks all staff members at U-Vet for their ongoing commitment, care and professionalism towards their patients and broader community. This decision is in no way a reflection of the hard work and dedication of U-Vet staff.

Staff members affected by this decision have been informed directly and will continue to be supported as the University prepares to close U-Vet. This includes access to additional dedicated counselling services that have been running onsite at Werribee since the proposal was first announced in early November.

Redeployment and payout periods for staff will commence from January 2023 to ensure that staff will continue to be paid as normal over the Christmas and New Year period.

Future plans at Werribee

The University remains fully committed to the ongoing operation of our Werribee campus and the delivery and excellence of the Doctor of Veterinary Medicine program for our students. Over many years, various modifications to the current teaching model and operations have been explored to ensure that the hospital was able to provide our students with the clinical experience required.

Vice-Chancellor Professor Duncan Maskell said: "As the only University in Victoria offering a globally accredited Doctor of Veterinary Medicine degree for students through our Melbourne Veterinary School, we are fully committed to the delivery of this program.

"Our Werribee campus is an important hub for teaching and research, as well as equine specialist care through the Equine Centre.

"The need for veterinary services in the local area was by far the most common concern during engagement with staff, students, members of the community and other stakeholders."

After exploring the potential for a third-party veterinary business to operate from the Werribee animal hospital facility in the future, the University is pleased to announce it has agreed to lease the facility to one of the national leading providers of comprehensive veterinary services, Greencross Pet Wellness Company.

Greencross Pet Wellness Company will establish and operate a veterinary general practice clinic, together with a 24-hour specialist and emergency hospital, at the facility from early 2023, adding to its extensive network across Australia.

As part of this agreement, a number of University staff members will work with Greencross Pet Wellness Company in the hospital to provide clinical teaching and placement opportunities at Werribee for the University's Doctor of Veterinary Medicine students.

"The need for veterinary services in the local area was by far the most common concern during engagement with staff, students, members of the community and other stakeholders."

Vice-Chancellor Professor Duncan Maskell

Professor Maskell said: "University staff members will provide frontline clinical care for patients within the context of our clinical education, and a key component of their role will be ensuring the quality of clinical experience for our students, together with Greencross Pet Wellness Company staff.

"This agreement will benefit the University's students who will be exposed to a broader range of clinical opportunities and local pet owners who will have access to a veterinary hospital with increased opening hours and more extensive services."

The University's agreement with Greencross Pet Wellness Company was finalised following the final outcome of the consultation process.

Such 'embedded distributed' clinical teaching models are already in place in several other accredited veterinary schools around the world and is a recognised framework for the delivery of clinical teaching by veterinary accrediting bodies.



TOO MUCH SEX AND NOT ENOUGH SLEEP IS DEADLY FOR ENDANGERED MARSUPIAL

Author: Clare McKay, Media and communications Officer, UniSC.

Endangered male Northern Quolls are giving up sleep in favour of having more sex – and it could be killing them, according to new research led by the University of the Sunshine Coast.

The study investigated why male Northern Quolls (*Dasyurus hallucatus*) – carnivorous marsupials the size of a small cat who usually mate themselves to death in one season – do not survive to breed again while females can live and reproduce for up to four years.

“They become easy prey, are unable to avoid vehicle collisions, or simply die from exhaustion.”

The findings, published today in Royal Society Open Science, suggest not enough sleep is contributing to the post-breeding die-off of males.

“They cover large distances to mate as often as possible and it seems that their drive is so strong that they forgo sleeping to spend more time searching for females,” says UniSC Senior Lecturer in Animal Ecophysiology Dr Christofer Clemente.

“The dangers of a lack of sleep are well documented in rodents, and many of the traits associated with sleep deprivation we see in male quolls, and not in females.”

He said the male quolls lose weight, become aggressive and appear to be reckless when it comes to their survival.

To make the most of their one breeding season they also let themselves go when it comes to their appearance. Their condition declines, with a notable increase in parasites, mostly likely because they devote less time to grooming.

Unusual breeding strategy

The Northern Quoll is the largest mammal known to invest its energy into just one breeding season, a strategy known as Semelparity, however the cause of death is unknown.

As part of the collaborative study with The University of Queensland, researchers fitted backpacks with trackers on wild roaming male and female Northern Quolls on Groote Eylandt, off the coast of the Northern Territory, Australia

Lead author, UniSC PhD candidate Joshua Gaschk said the behaviours, activity budgets, speeds and distances travelled were measured to track differences between males and females.

“Male quolls breed for one season, while females can breed for up to four, so this suggested that if no difference was detected in their daily behaviours that they perish due to an unexplored aspect of their physiology,” he said.

“Instead, we found that male and female quoll behaviour differed significantly in many ways.”

Overall, males spent less time sleeping and resting than females. They walked more and travelled longer distances. Males were also not as vigilant when it came to searching for food and eating, avoiding predators and grooming.

“Sleep deprivation, and associated symptoms for a prolonged duration would make recuperation impossible and could explain the causes of death recorded in the males after breeding season,” Mr Gaschk said.

“Two males, who we named Moimoi and Cayless moved for 10.4km and 9.4 km in one night respectively. An equivalent human distance, based on average stride length, would be around 35-40km.”

“They become easy prey, are unable to avoid vehicle collisions, or simply die from exhaustion.”

Researchers say the initial data highlights the need for further studies to provide insights into the effect of sleep deprivation on quolls and the wider Dasyuridae and Didelphidae families of marsupial mammals, found in Australia and Papua New Guinea.

“We want to determine if sleep deprivation is experienced by other family members, such as opossums, antechinus (marsupial mice) and Tasmanian Devils,” Mr Gaschk said.

“Virginian opossums (*Didelphis virginiana*) undergo a similar physiological change to other semelparous species but do not experience the die-off, while Tasmanian devils (*Sarcophilus harrisii*) experience a similar loss in condition and a reduced immunocompetence.

“If male quolls forgo sleep to the detriment of their survival, Northern Quolls become an excellent model species for the effects of sleep deprivation on body function.”

The study was supported by the Australian Research Council through a Discovery Projects Grant



(Kaylah Del Simone/University of the Sunshine Coast)

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Dog walking based on age

Walking puppies

Puppies sure seem like they've always got energy to spare, and while walking your pup is a crucial part of their health and training, they do have limits! It's important not to over- or under-exercise a puppy, so finding that sweet spot is key.

A rule of thumb for puppies is a 5-minute walk per month of age. So a 4-month-old pup (with all its vaccinations!) can manage about 20-minutes of walking a day. Use this rule as a guide, but pay closer attention to your puppy's behaviour. If they're acting sluggish, try shortening your walks. Or if they're hyperactive at home, try lengthening their walks or adding in extra play and training.

Walking adult dogs

Once your pooch has graduated from puppyhood, the next rule of thumb is roughly two 30-minute walks a day for high-energy dogs and a 15- to 30-minute walk for lower-energy dogs. This can include a mix of on- and off-leash walking or running. You'll know your dog's energy levels better than anyone, so adjust their amount of exercise based on their energy levels and behaviour. Please factor in their breed, too – more on that below.

A healthy, active dog of the right breed will enjoy long walks and even difficult terrain, so if you're a hiker or adventurer, high-energy dogs will be a good match for you. If you have a limited amount of time, don't have a big backyard and don't enjoy exercise yourself, consider a smaller dog that may require less walking.

Walking older dogs

As your dog gets older, they might not keep up like they used to! Keep an eye on their energy levels and recovery time after walks, and scale back the length of your walks as needed. Try to stick to flat, easy terrain and avoid any big jumps. If your older dog has health conditions like joint problems or obesity, your vet can help you make a plan to keep them active within their limits.



Dog walking based on breed

Walking high-energy dog breeds

If your pooch is a working dog, like sheepdogs and kelpies, or a hunting dog, like a dalmatian, they may require more extended periods of exercise each day.

Walking lower-energy dog breeds

Lapdogs and smaller breeds, like chihuahuas or shih tzus, may need less walking overall, or at least shorter walks broken up throughout the day.

Brachycephalic breeds

Dogs with shortened snouts like pugs struggle to cool themselves through the membranes in their nose, so they are easily overexerted. Speak with your vet to ensure you're giving your brachycephalic dog enough exercise.

Consult your vet about your dog's needs

Each dog is individual, so they may need less or more exercise than the general rule for their breed. Ask your vet what you should know about your dog's breed's needs and make adjustments as you get to know your dog.

Factors such as their fur and coat can impact how efficiently your dog can cool themselves down and maintain energy over a walk.

Dog walking based on health

Your dog's limits for exercise will change throughout their life. If your dog's health or ability changes, your vet can help you create an exercise program that keeps them active enough within their capability. You may need to alter your walking routine and speak with a vet if you notice any of the following:

- Your dog seems stiff
- Your dog is walking slower than usual
- Your dog is panting heavier or more quickly than expected on walks – they may need extra hydration or shorter walks
- Your dog has an injury
- Your dog develops any conditions or diseases

Dog walking based on living situation

Your dog's size compared to the size of your living space, will impact how much incidental exercise they can get. A small dog in a big backyard can often get enough running around that you only need take it for a short walk each day or do some active training and playing. A big dog in a small space will need extra walks to stretch their legs and burn off some energy to help keep them healthy and avoid them getting restless or hyperactive.

How do I know if I'm walking my dog enough?

You might be under-walking your dog if they're over-energetic or destructive around the house. You might be over-walking your dog if they're slow, stiff or tired.

What can I do if I can't take my dog walking enough?

Beyond walking your pooch, you can use forms of enrichment for dogs to help keep their brains stimulated and encourage physical activity. Dog enrichment can involve teaching your dog tricks and introducing toys like puzzles or a KONG stuffed with treats. Dog puzzle toys can help challenge your fur baby's brain, and while it's not a substitute for walks and physical activity, it can get them moving and keep their mental cogs turning!

Whether you're training, playing, walking or hiking with your dog, treats are a great way to encourage a healthy lifestyle. If you're not walking your dog often because you're strapped for time, try enlisting the help of friends, family or a dog walker, or splitting the walk into shorter halves in the morning and evening.

Keeping your dog safe on walks on hot days

Keeping the whole family hydrated – especially on summer adventures – is important; a travel dog bowl for your pooch (and bottles of water for you) can keep you all enjoying activities for longer! Keeping your dog appropriately groomed can help support their natural cooling mechanisms too – this can involve shaving single coated breeds, trimming double coated breeds, and keeping your dog's paw pad hair trimmed back to help heat escape from their feet.

On days over 25 degrees, it's probably safer to skip the walk to avoid risk of heatstroke or dehydration – try going early in the morning before it heats up. Keep an eye on your pooch for signs of excessive panting or drooling when you are out in the sun.

How can I keep my dog comfortable on walks?

A comfortable dog walking harness and lead can help encourage your dog to keep trotting along. You can learn more about how to fit a puppy harness properly in this article. The Rogz Airtech range has plenty of reliable harnesses, leads and collars to help you find the right fit. Also, don't forget your dog walking bags so your pooch can listen to nature's call!

Our loyal companions are usually happy to take our lead, so finding a walking route you enjoy can help create more of those pawsome family memories. We hope your walks help keep the whole family feeling happy and healthy.

Source: [Petstock.com.au](https://www.petstock.com.au)



PET OWNERSHIP SOARS

OVER TWO-THIRDS OF AUSTRALIAN HOUSEHOLDS ARE NOW PET OWNERS.

Australia's most comprehensive pet population survey has revealed the boom in pet ownership seen during the COVID-19 pandemic has levelled-out to a "new normal" of strong pet ownership in Australia, with 69% of households across metropolitan, regional and remote Australia now home to one or more pets.

Animal Medicines Australia's latest *Pets in Australia* study found an estimated 28.7 million pets are now calling home to around 6.9 million households across Australia. Many of these people are first time pet owners, having brought their pet into their home during the pandemic.

Dogs and cats have led this sustained growth in pet ownership, with almost half of all households having at least one dog¹ and a third of all households housing at least one cat². While the numbers of other pets have remained largely steady since 2019³.

For many pet owners, typical reasons for getting a pet include companionship, rescuing animals, relaxation and mental health, with 85% saying their pet had a positive impact on their physical and mental wellbeing.

"The research identified four distinct segments of pet owners. The largest cohort (30%) are driven by affordability and convenience, meaning they are less likely to spend money on non-essential items. Others (25%) – many of whom are retirees and empty nesters – are looking for simplicity & reliability to maintain a happy and well cared animal companion," AMA CEO, Ben Stapley said.

"For 27% of pet owners – who are typically middle to higher income families – 'care and quality' is a key driver in their approach to pet care, with them willing and able to spend money across all pet products and services, including preventative care. Interestingly the least experienced cohort – but arguably the ones more likely to have more pets – are driven to care and share experiences with their pets, even if it means stretching the budget."

Despite the growth in ownership, housing constraints and costs are key barriers holding back would-be owners and current owners hoping to grow their 'pack'. Current non-owners – particularly renters and apartment dwellers – are especially likely to point to unsuitable homes or issues with landlords, body corporates and strata laws as a reason not to bring a pet into their lives.

- 69% of households across metropolitan, regional and remote Australia are now home to one or more pets.
- An estimated 28.7 million pets are now calling home to around 6.9 million households across Australia.
- 85% pet owners say their pet has a positive impact on their life, noting mental and physical health as key positives.
- Australians are estimated to be spending over \$33 billion annually to keep our pets fed, healthy and well-accessorised.
- 68% say they had considered not going to the vet when they needed to, driven partly by cost considerations.
- Despite the increase, housing constraints and costs are key barriers holding back would-be owners, particularly renters and apartment dwellers experiencing issues with landlords, body corporates and strata laws.





“In some circumstances, these challenges can lead to difficult decisions to find alternate care arrangements for a beloved pet,” Ben Stapley said.

While a family member or friend remains the most popular choice for rehoming a pet if they can no longer care for it, more people are now likely to take their pet to a shelter (20%, up from 15% in 2019).

SEC Newgate’s *Mood of the Nation August 2022*, a nationally representative online survey of n=1,804 adults indicates that as Australia emerged from its pandemic-driven pet acquisition boom, there was also a surge in pet surrendering occurring in parallel – in part driven by difficult circumstances and amongst pet owners with greater financial and social vulnerabilities.

“This data paints a portrait of some people who are stretched thin and stressed out, dealing with increased living costs and having to give up their pets. It suggests a need for supporting services to help keep pet owners with their animals through difficult times, particularly given the findings regarding the mental

health benefits of companion animals,” Ben Stapley said.

“To ensure that as many Australians as possible can access the myriad benefits associated with pet ownership, we seek a policy environment that facilitates responsible pet ownership practices,” AMA CEO, Ben Stapley said.

“This could be achieved by improving strata laws, providing support for vulnerable pet owners, or through greater national consistency in companion animal policy settings.

“We need to encourage informed and thoughtful decision-making by governments, policymakers and others when considering issues that impact Australia’s estimated 28.7 million pets in 6.9 million households,” Ben Stapley concluded.

¹ 48%, up from 40% in 2019 but on par with 47% in 2021

² 33%, up from 27% in 2019 and 30% in 2021

³ fish (12% vs. 11%), birds (11% vs. 9%), small mammals (4% vs. 3%) and reptiles (3% vs. 2%)

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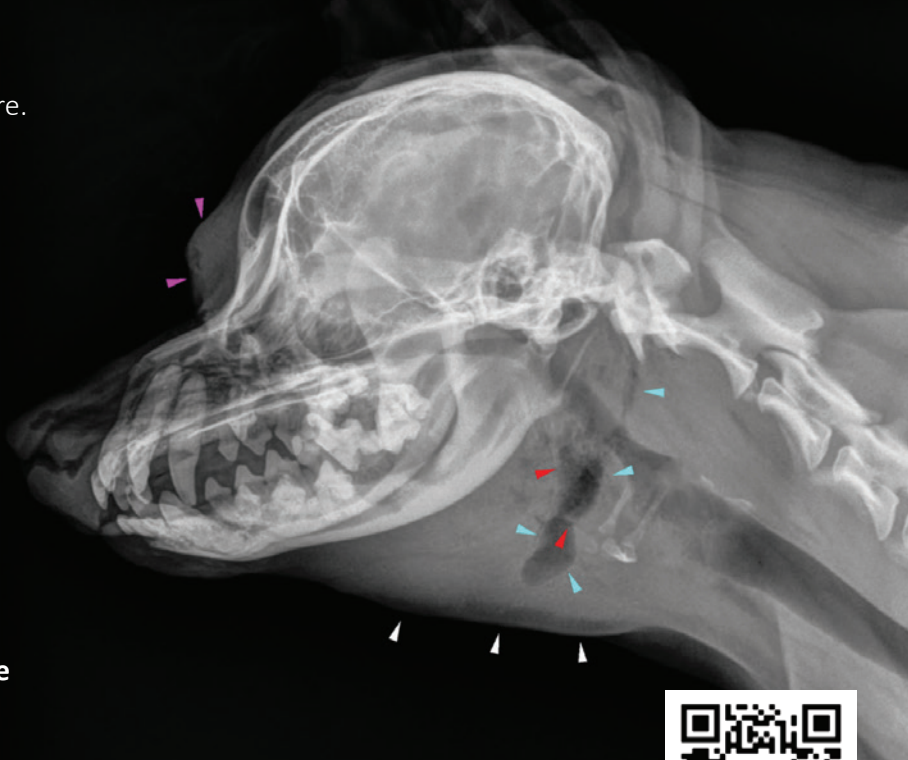
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WHAT IS AUTOSOMAL RECESSIVE PEDIGREE?

When it comes to figuring out which traits or conditions an animal's offspring can have, there are several different types of genes to consider. Some genetic features are easier to recognize than others.

Of the many potential gene markers to look for, autosomal recessive genes often fly under the radar without proper genetic testing. Breeders who test for these conditions can provide an autosomal recessive pedigree. When understood, this can illuminate potential factors that may otherwise have come as a surprise.

What is an Autosomal Recessive Pedigree?

Generally speaking, the term 'autosomal recessive' refers to the characteristics of a specific genetic trait. In the context of animal breeding, an autosomal recessive pedigree means any pedigree chart that accounts for these traits. All dogs have 78 chromosomes, which are fundamentally similar across all breeds. The specific ways these genetic sequences are expressed represent each individual's genetic traits. Genetic traits come in many forms, and any trait dictated by a single gene marker can be either dominant or recessive. Autosomal recessive traits can be inherited from two parents carrying a specific recessive mutated gene. Because the gene is recessive, the parents are often carriers and don't actually have the condition associated with that gene. One trick for identifying recessive traits is that they tend to skip generations, which can be seen in pedigree charts. While this is generally true, some autosomal recessive traits don't necessarily skip generations, depending on some other factors. The manifestation of recessive traits makes testing all the more critical. It is the only way to accurately identify which characteristics may be a part of your animal's autosomal recessive pedigree.

Common Autosomal Recessive Traits

While the number of potential autosomal genetic traits is virtually endless, some are more impactful than others. Hip and elbow dysplasia and gastric dilation are common autosomal recessive conditions in dogs. These and other conditions can significantly affect their quality of life. Others, such as cancer, epilepsy, and congenital heart problems, are even more harmful.

Autosomal Recessive Pedigree Testing

These genetic conditions, from the most trivial to the most impactful, play a vital role in breeding. Genetic testing can reduce the chances of new dogs developing these conditions and make us aware of which traits are already present in our dogs and cats. Many diseases may never be easy to live with, but being prepared can make a world of difference in how they are mitigated and managed.

As we mentioned above, the only way to ensure your animal's autosomal recessive pedigree is to have the right genetic testing tools and an understanding of what to look for.

Orivet Genetic Pet Care

Animal breeding is more than a business or a hobby — it's a labor of love. Orivet is committed to providing you with specialized breeder services and industry-leading DNA testing. With actionable insights and a 360-degree understanding of each pet, you can choose better matches, make smarter investments, and raise happier, healthier animals down through the generations. For more information on Orivet's easy and affordable genetic testing, just contact our team today!

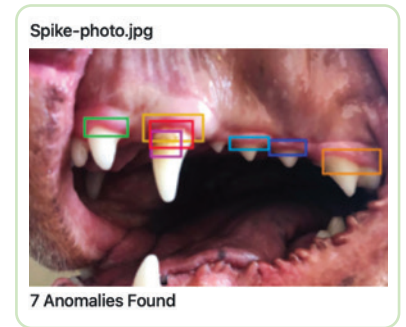
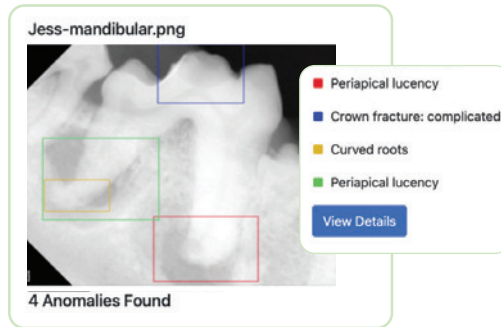
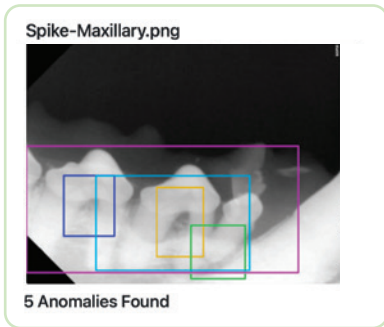
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D.A.V.I.D
artificial Intelligence

D.A.V.I.D – the new wave in dental X-Ray AI



HAVING TROUBLE INTERPRETING YOUR X-RAYS?

- D.A.V.I.D is the answer
- As simple as taking an X-Ray and uploading to the app to get pathologies marked up
- Returns pathology in seconds
- X-ray interpretation is now affordable and accessible to all clinics with cost never being a concern. A monthly subscription of \$58 grants unlimited access. There's no need to pay per case. Load as many images you need. 100 cases a month makes each case only 58 cents.

Results are almost instant, returned in seconds. There is no long wait so that treatment plans can fit right into a fast surgical workflow.



DAVID is an artificial intelligence device that provides veterinarians, technicians and nurses with decision support for the interpretation of dental x-rays and images.

www.davidxray.com

ATOPIC DERMATITIS IN DOGS LINKED TO CERTAIN PARTS OF THE GENOME



Using new gene mapping methods, researchers have found connections between atopic dermatitis (eczema) in dogs and several regions of the genome. Some of the genes identified coincide with genes linked to similar problems in humans. The filaggrin gene region, for example, which is regarded as the most powerful risk factor for atopic eczema in humans, has now also been linked to this disease in Labrador retrievers.

The findings are reported in a new study produced by the dog genetics group at Uppsala University and the Swedish University of Agricultural Sciences, which has been conducting research in this field for more than ten years in cooperation with colleagues in Switzerland, the United Kingdom and the United States.

Genome sequencing became possible in the early-2000s. Since then, canine genome sequencing has proved invaluable for researchers seeking to understand the human genome.

Dogs have lived alongside humans for tens of thousands of years and suffer from similar diseases, including immunological diseases such as atopic dermatitis (allergic eczema). Studying dog disease genetics, using ordinary blood samples, can also be a way to obtain clues to the causes of the corresponding human diseases.

Dogs and humans affected by atopic eczema have much in common as regards medical symptoms and the early onset of the disease, as well as in histopathological terms with similar immune cell infiltration in the skin. The disease has a complex genetic background in both species and is also influenced by environmental factors.

"It's vital that atopic eczema is correctly diagnosed by careful elimination of other potential non-allergic causes of the patient's symptoms, followed by a positive allergy test," says Kerstin Bergvall, veterinarian in charge and specialist in dermatology who has been involved in the research from the start.

With gene mapping technology steadily advancing, new methods have recently emerged for mapping complex diseases. In the

study now published in the journal *Communications Biology*, the researchers used one methodology to capture multiple associated genetic risk variants and another to discover disease variants 'hidden' in the genome because of artificially (i.e. humanly) selected characteristics.

"The new methods make it possible to find new risk factors that have become common in the specific breed, perhaps because of the selection for other characteristics," says Katarina Tengvall, researcher at Uppsala University and first author of the study. "The candidate genes identified here are important for both the nature of the skin barrier and the immune defence, as expected in atopic eczema."

The study shows several overlaps, or correspondences, with genes associated with human atopic dermatitis. One particularly striking finding now made by the researchers in this study is that the genetic region containing the filaggrin gene, which is regarded as the most powerful genetic risk factor for atopic eczema in humans, is a risk factor in dogs as well.

"This highlights the value of canine studies of genetic diseases that also affect humans. A better understanding of the disease mechanisms may ultimately lead to better therapies for dog and human alike," says Kerstin Lindblad-Toh, Professor of Comparative Genomics and senior author of the study.

Reference:

Katarina Tengvall, Elisabeth Sundström, Chao Wang, Kerstin Bergvall, Ola Wallerman, Eric Pederson, Åsa Karlsson, Naomi D. Harvey, Sarah C. Blott, Natasha Olby, Thierry Olivry, Gustaf Brander, Jennifer R. S. Meadows, Petra Roosje, Tosso Leeb, Åke Hedhammar, Göran Andersson, Kerstin Lindblad-Toh. **Bayesian model and selection signature analyses reveal risk factors for canine atopic dermatitis.** *Communications Biology*, 2022; 5 (1) DOI: 10.1038/s42003-022-04279-8



BIOSECURITY'S TOP DOG OF 2022

The Department of Agriculture, Fisheries and Forestry has announced biosecurity detector dog Qubit as the 'Top Dog' of 2022.

Acting Secretary of the Department and acting Director of Biosecurity, Dr Chris Locke, said the department awards the 'Top Dog' title to a detector dog and handler team who have significantly contributed to Australia's biosecurity efforts.

The 2022 title was given to Qubit and handler Sam for their contribution to protecting Australia against biosecurity threats including foot and mouth disease (FMD) in Melbourne Airport and the Melbourne Mail Gateway.

"Qubit and Sam sniffed out and seized more FMD risk material—meat and dairy products—than any other biosecurity dog team last year," said Dr Locke.

"Together they intercepted 126 products with the potential to carry FMD and seized 765 individual biosecurity risk items.

"In 2022 we saw the threat of FMD and lumpy skin disease grow as it was detected in our near neighbour, Indonesia.

"In response, the biosecurity detector dog program expanded the detector dog target odours to include dairy products, which have a greater risk of carrying exotic diseases including FMD.

"The department currently has 46 Labradors working as biosecurity detector dogs across Australia's international airports, mail centres and seaports. This will increase to 62 Labradors over the next two years.

"Biosecurity detector dogs are a vital part of our biosecurity defence at the border. They are teamed with our detector dog handlers, who are biosecurity officers with specialised skills to effectively train and deploy a detector dog.

"Together, they do a great job of protecting Australia alongside the other measures we deploy to mitigate risk of exotic pests and diseases."

Special mentions were also awarded to other biosecurity dog teams. 'Most Versatile' was given to Detector Dog Vespa in Sydney who, with her handlers, found the widest range of commodities (124 different commodities across her 635 individual risk items seized).

'Rookie of the Year' was awarded to Detector Dog Emma in Sydney who sniffed out 278 individual risk items since her graduation in August 2022. This equates to almost 3 seizures per operational workday.

The October budget included funding for an extra 20 dogs and their handlers on the frontline. The first four of that new cohort recently graduated from their 8-week novice training course at a specialised facility in Brisbane.

Fast Facts:

In 2022 Biosecurity Detector Dogs screened 6.2 million mail items and over 850,000 travellers entering Australia.

In 2022 Biosecurity Detector Dogs intercepted approximately 10,700 mail articles and 14,600 travellers carrying biosecurity risk items.

Biosecurity Detector Dogs are trained to detect over 250 individual biosecurity risk items, from fruit and meat to plants and exotic pests.

Biosecurity Detector Dogs are deployed to screen incoming people and goods in Australia's international airports, ports and mail centres.

Top Dog: Qubit

Intercepted the largest number of FMD risk items in 2022

Location: Melbourne

Handler: Sam Watson

126 interceptions of goods with potential to carry FMD

765 individual risk items seized.

Most Versatile: Vespa

Intercepted the broadest range of risk items in 2022

Location: Sydney

124 different commodities intercepted

635 individual risk items seized.

Rookie of the Year: Emma

Achieved most seizures within 5 months of their 2022 graduation

Location: Sydney

278 individual risk items intercepted.

Sam & Qubit in the mail centre



FELINE CASE STUDY

Species: Feline

Breed: Domestic Shorthair (DSH)

Sex: Male Neutered

Age: 3 months **Clinical History:**

He is presenting for a 5-day history of difficulty breathing. A week ago, he presented for difficulty breathing, vomiting and eating elastic bands. At that time, abdominal radiographs did not reveal obstruction. He was put on a prescription of Amoxicillin-Clavulonic Acid for increased respiratory effort. He presented early today for inappetence of 3-days duration. On exam, there was marked respiratory effort.

Anatomic regions: Thorax

Details of study and technical comments:

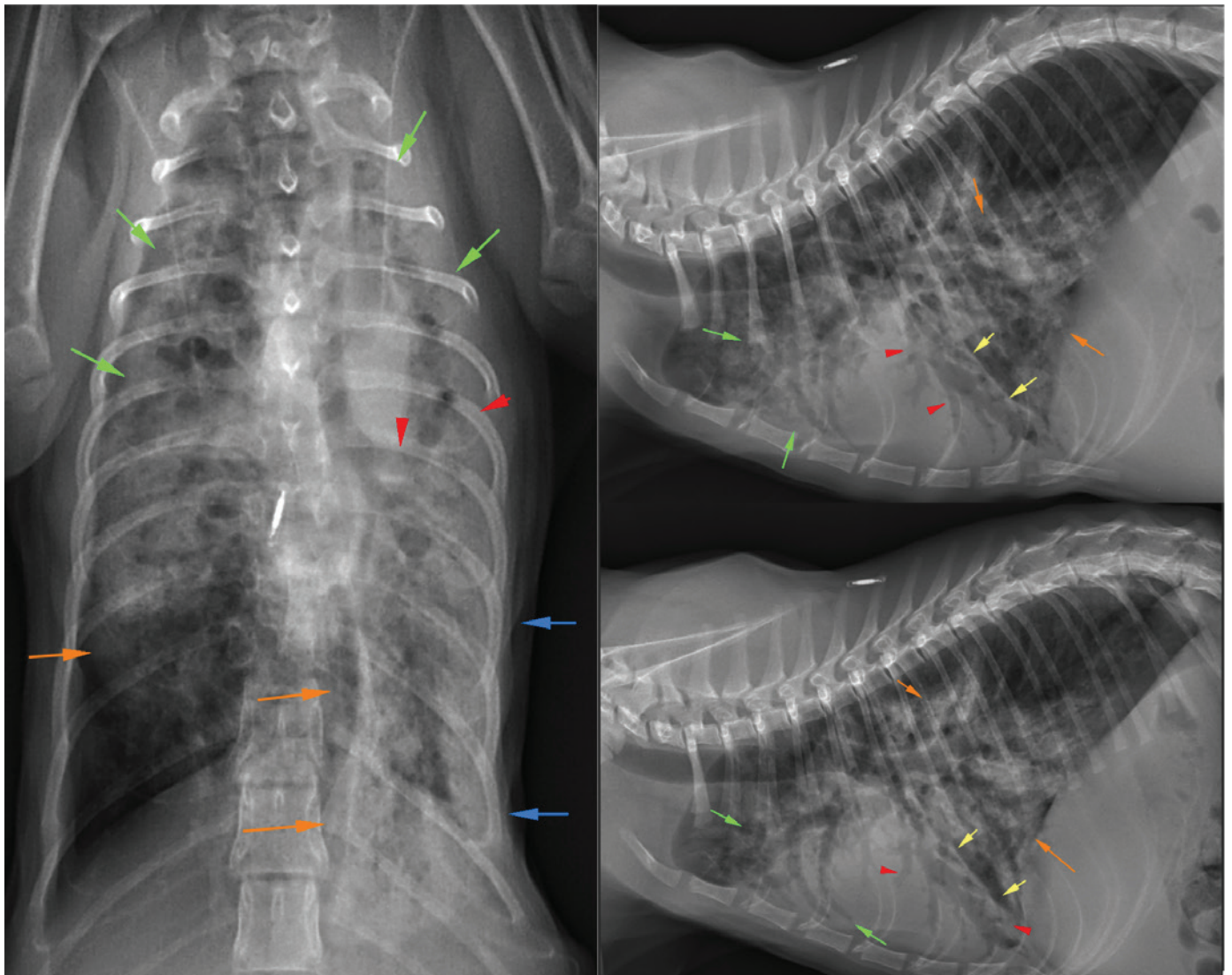
Left lateral, right lateral and ventrodorsal view of the thorax are provided for evaluation. The study is of good diagnostic quality.

Diagnostic interpretation:

Severe alveolar opacities are identified in the right middle and caudal subsegment of the left cranial lung lobes lung field bilaterally, creating distinct air bronchograms (red arrowheads) and a lobar sign caudodorsally (yellow arrows). Similar changes are in the right cranial and cranial subsegment of the left cranial lung lobe (green arrows). Incomplete alveolar pattern (moderate to severe mixed lung pattern) is extending into the cranioventral aspect of the right and left caudal lung lobes (orange arrows); this is more severe in the left caudal lung lobe. There is sparing of the caudodorsal third of the lung fields in the lateral views.

There is an inward deviation of the caudal left-sided thoracic wall (blue arrow). No rib fractures are identified. The overlying soft tissues of the thoracic wall are normal. The cardiac silhouette and pulmonary vessels are effaced by the lung opacities. No dorsal displacement of the terminal trachea is seen.

No pleural space or definitive mediastinal abnormalities are noted. The diaphragm appears mildly asymmetric with mild cranial posture on the left side. The included skeletal structures and cranial abdomen are age appropriate.



Conclusions:

• Extensive, severe alveolar pattern with predominantly cranioventral distribution and involving nearly entire left lung.
Differential diagnosis:

- Aspiration pneumonia
- Bacterial pneumonia/bronchopneumonia
- Acute respiratory distress syndrome
- Severe haemorrhage/pulmonary contusion related to trauma
- Pulmonary haemorrhage related to coagulopathy
- Severe pulmonary oedema (cardiogenic or non-cardiogenic) is considered less likely

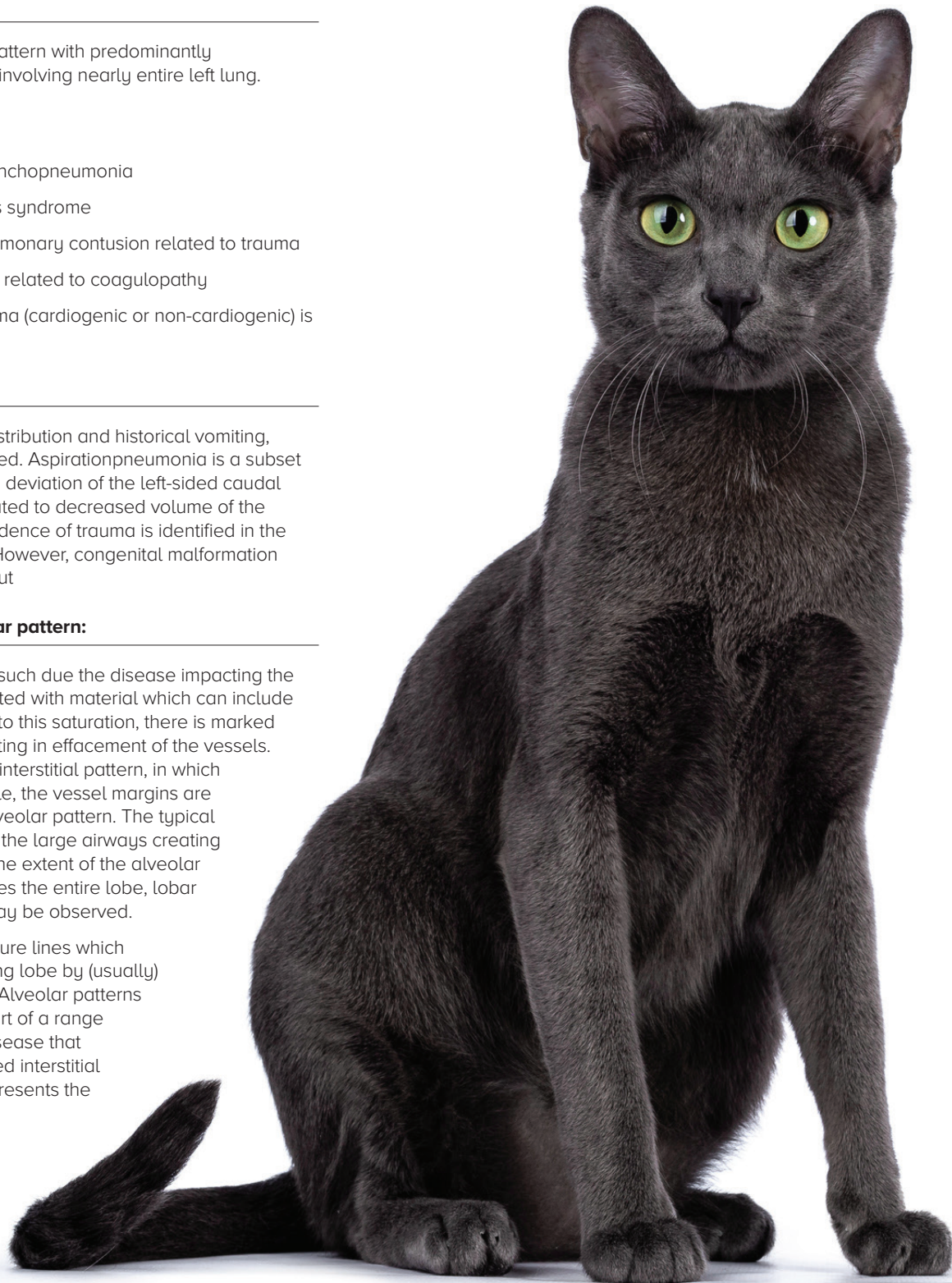
Additional comments:

Based on the cranioventral distribution and historical vomiting, bronchopneumonia is prioritised. Aspiration pneumonia is a subset of bronchopneumonia. Inward deviation of the left-sided caudal thoracic wall is most likely related to decreased volume of the left lung, since no imaging evidence of trauma is identified in the provided set of radiographs. However, congenital malformation cannot be completely ruled out

Comments about the alveolar pattern:

Alveolar pattern is termed as such due to the disease impacting the alveoli. The alveoli are saturated with material which can include fluid, cells, pus or blood. Due to this saturation, there is marked opacification of the lung resulting in effacement of the vessels. In contrast to an unstructured interstitial pattern, in which the margins are partially visible, the vessel margins are completely obscured in an alveolar pattern. The typical source of contrast is air within the large airways creating an "air bronchogram". When the extent of the alveolar pattern is severe and subsumes the entire lobe, lobar margination or a lobar sign may be observed.

This contrasts with pleural fissure lines which define the boundary of the lung lobe by (usually) fluid within the pleural cavity. Alveolar patterns in many circumstances are part of a range of severity of parenchymal disease that often can begin as unstructured interstitial pattern; in this category, it represents the severe end of the spectrum.



CANINE CASE STUDY

A 3yo ME Collie-cross farm-dog went missing for several hours during a walk, returning fairly exhausted and on a hot day, and was cooled off in the pond due to concern for heat stress.

At presentation the following day a stiff gait was noted and there was generalised weakness and discomfort on palpation and manipulation of both the fore- and hind-limbs. He was also noted to be slightly pale, and temperature was 39.7°C

His owner also provides a urine sample that they collected from the dog at home.

Questions you may want to ask yourself at this point are:

What are the most common causes of abnormal urine colour in dogs?

What further testing would you recommend in this case?



Urine discolouration may occur for a variety of reasons, but the most common causes result from haematuria, haemoglobinuria, myoglobinuria and bilirubinuria.

Haematuria may be differentiated from pigmenturia by spinning down urine to see if the discolouration clears, and in combination with sediment examination to look for whole red blood cells. Clearance of the discolouration, and the absence of whole RBCs on sediment examination would exclude haematuria, and be compatible with pigment. In this dog's case, pending the results of biochemistry and haematology urine was spun and the pigment did not clear. Sediment examination also did not identify red blood cells, which made pigmenturia (haemoglobinuria, myoglobinuria, bilirubinuria) more likely.

A spun plasma sample did not identify haemolysis, and haematology ultimately did not identify anaemia despite the pale mucous membranes on physical examination. This excluded haemoglobinuria due to pre-renal RBC haemolysis, but not RBC lysis within the urine itself. However the gait stiffness and limb discomfort was considered more likely to represent myalgia, and therefore myoglobinuria was felt to be more likely.

When biochemistry results were available, a markedly elevated creatinine kinase (CK) result was found that was above the machine's readable value. Other biochemistry parameters, including bilirubin, were normal allowing us to exclude bilirubinuria.

The Internal Medicine Team at VetCT discussed these combined findings with the primary care vet, and consulted our Neurology Team as well for additional management advice. Together the clinicopathologic findings were felt to be most compatible with rhabdomyolysis. Rhabdomyolysis results from uncontrolled intracellular calcium increases within myofibres, with release of calcium-dependent proteases that subsequently result in myonecrosis.



With the reported history the most likely cause was felt to be exertional rhabdomyolysis following more extreme exercise. Other differentials would include toxin or venom exposure, and less likely for this case based upon history and examination, drug reactions and infectious process. Genetic defects resulting in disturbances in glycogen or lipid metabolism, mitochondrial dysfunction or in spontaneous intramuscular calcium release might be considered where there was repeated presentation. However these conditions are rare in dogs.

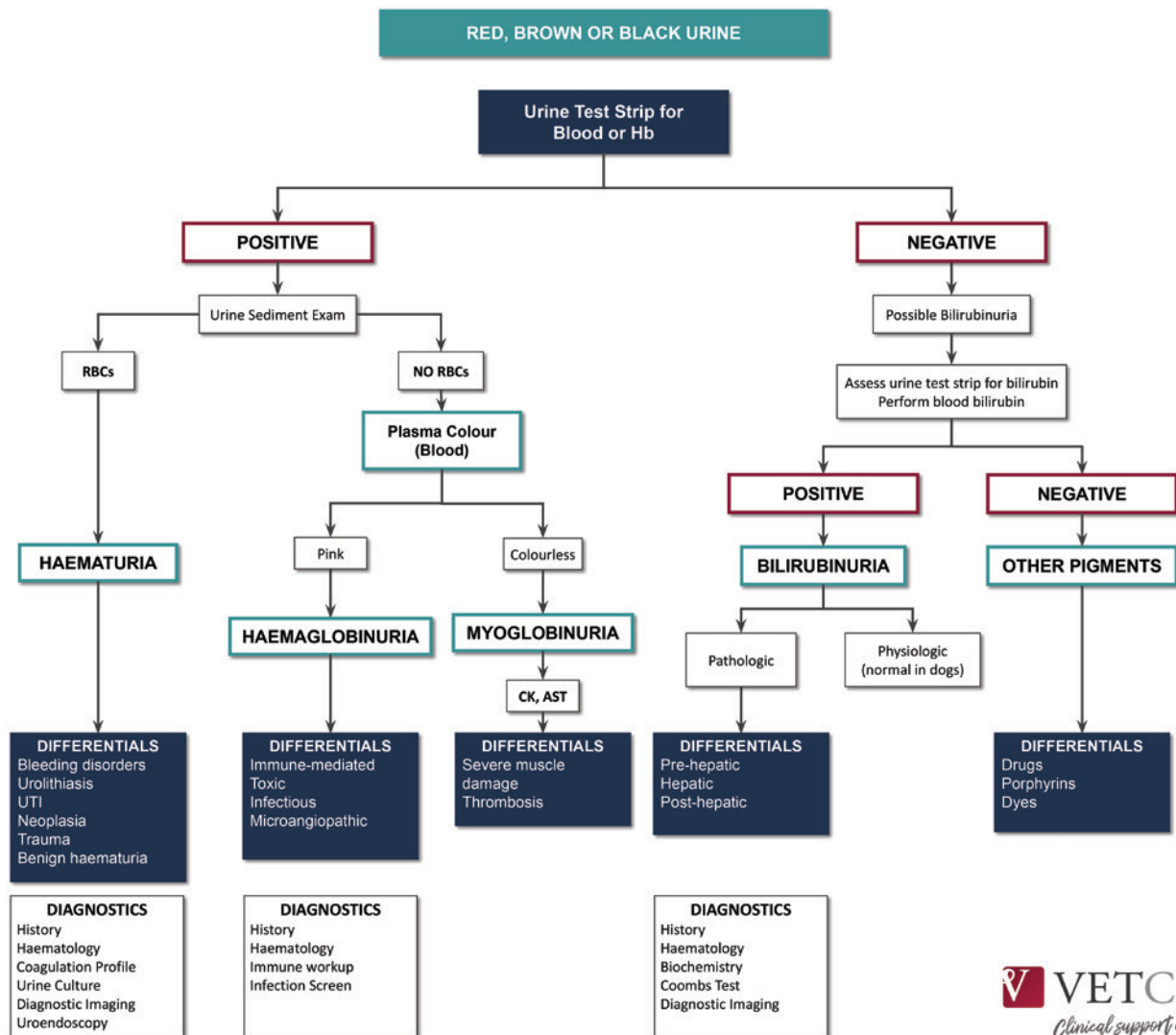
Management in this case included intravenous fluid therapy to protect the kidneys from risk of an acute kidney injury, and this was recommended to continue until such time that the magnitude of pigmenturia dramatically reduced and the risk of AKI was therefore minimal. Monitoring of urea, creatinine concentrations

was also discussed. As CK has a short half-life this was also suggested to be useful as a marker of resolution of myonecrosis. Pain management with opioids was also recommended.

Our neurology team also considered exertional rhabdomyolysis most likely and in addition to the above recommended supplementation with Co-enzyme Q10, L-Carnitine and riboflavin (or B-complex vitamin supplements) to aid recovery, together with gentle passive range of motion physiotherapy.

The dog was discharged 48 hours later after a marked clinical improvement.

This case was brought to you by VetCT, leaders in specialist-to-vet teleconsulting. Contact us today at info@vet-ct.com



AUSTRALIA'S VETERINARY EMERGENCY PLAN GAINS NEW LEAD FOR PROGRAM

Animal disease specialist, Dr Mark Cozens will be the new lead for Australia's Veterinary Emergency Plan (AUSVETPLAN), who started this month at Animal Health Australia, as the Head of Program.

Dr Cozens is a senior veterinarian with experience in both government and private sectors, and has worked overseas on responses such as foot-and-mouth disease and anthrax, and in Australia on responses to Newcastle disease, equine influenza, Hendra virus and white spot disease.

Kathleen Plowman, CEO of Animal Health Australia welcomes Dr Cozens to the organisation and has no doubt he has the expertise to hit our goal of ensuring AHA's members are prepared and ready to respond in the event of an emergency disease outbreak.

"The AUSVETPLAN is Australia's game plan to an agreed approach around how we combat emergency animal diseases and Mark will play a lead role, alongside his team, to work closely with government and industry representatives to enhance response readiness for all our members," Ms Plowman said.

Dr Cozens takes on the role from Dr Peter Dagg and looks forward to continuing to bring the AUSVETPLAN into a new era and ensuring it remains fit for purpose.

"I've worked in the emergency animal disease preparedness and response area for many years, in multiple countries and jurisdictions across Australia, and am excited to do my part in bringing government and animal industries together and reach consensus on very important emergency animal disease policy issues.

"With diseases such as foot-and-mouth disease and lumpy skin disease posing significant threats to Australian animal industries and governments, it is important we have strategies that are contemporary, that the policy is informed on the best available science and that government-industry agreed approaches to manage emergency animal diseases are clearly articulated and able to be rolled out effectively," Dr Cozens said.

Animal Health Australia currently manages 66 AUSVETPLAN documents including more than 30 disease specific plans – these can all be found here – [Informing EAD Responses – AUSVETPLAN – Animal Health Australia](#).

Source: Animal Health Australia.



"I've worked in the emergency animal disease preparedness and response area for many years, in multiple countries and jurisdictions across Australia, and am excited to do my part in bringing government and animal industries together and reach consensus on very important emergency animal disease policy issues"

Dr Mark Cozens



REFUELLING ANIMAL CHARITIES WITH PASSION AND DIGITAL EXPERTISE, THE SECRET TO SUCCESS FOR BUSINESS AND COMMUNITY

Many companies have found great success through the many benefits of giving back to humanity, including the animals that are part of the fabric of communities.

Celebrating their sixth birthday this month, Adelaide-based digital marketing agency Refuel Creative is one such business, having expanded their business internationally and using their knowledge to help Australian animal welfare charities achieve their goals and save them thousands of dollars.

Refuel Founder and CEO Ryan Jones is now calling Aussie businesses to give back to their community by sharing their knowledge and experience in the work they do. Jones has worked in the not-for-profit (NFP) sector for a number of years and now works to help charities across Australia, saving them \$400K (collectively).

"I've seen the challenges charities face and the impact they can have on their communities. If an organisation like ours can help them be more efficient with their limited resources, then we can help them improve their outcomes," said Jones, a HubSpot certified marketer and SEO expert.

The pet rescue industry is a particular passion of the team at Refuel, who are long-term sponsors of the annual Companion Animal Rescue Awards, providing website, marketing and live-streaming services in addition to an in-kind prize for a winning animal rescue organisation.

Refuel has worked with past Rescue Awards winners Greyhound Rescue and the Rabbit Sanctuary, and this year will donate their expertise to Rachie's Retirement Home, a Brisbane-based pet rat rescue charity, for taking out last year's 'Refuel Creative Digital Marketing' category.

Jones said, "We're all animal lovers at Refuel, so the Rescue Awards are important to us. It gives the team an opportunity to work on something that recognises the hard work of these charities, shining the light on rescues, shelters and other organisations giving pets a second chance in a loving home."

In the lead up to Christmas last year, the Refuel team celebrated the season of giving by spending a fun afternoon cuddling bunnies brought in by their client RSPCA South Australia.

"The team at RSPCA helped fill in our gaps in bunny knowledge, learning about the different breeds, and some of the ways they get abandoned. It was very tempting to take a couple of bunnies home!" said Jones.

Giving back to humanity

Refuel helps not-for-profit organisations in different ways depending on their needs, whether it's getting their Google Ad Grant up and running, improving their Search Engine Optimisation so that they can be found online or building websites that help attract new donors and funders, and more.

The digital marketing team has also worked with The Animal Rehoming Service and AMRRIC (Animal Management in Rural and Remote Indigenous Communities), which collaborates with rural and remote Aboriginal and Torres Strait Islander peoples to improve the health and wellbeing of their companion animals and the health, wellbeing and safety of communities.

"We do a lot for AMRRIC – CRM implementation, website, IT setup and support, training and more," said Jones. "We cut their IT spend by thousands of dollars per year in 2017 and retained them as a client ever since, with our scope of work growing with the organisation's needs."

When The Animal Rehoming Service had issues with their Google Ad Grant, Refuel came to the rescue, which resulted in growth in website traffic, social media following and newsletter subscriptions.

Refuel has competitive edge with launch in U.S

Last year Refuel launched into the United States market, giving the growing company a competitive edge in the marketplace.

"The U.S. market opens up a lot of opportunities not just for us but also our clients," said Jones. "It's a larger market, with larger companies, which means more data. It's also a more advanced market, so we're doing things in America that won't become trends in Australia for 18 to 24 months. This helps the Aussie charities we work with stay ahead of the competition and benefit from the knowledge gained from working with businesses with a range of budgets and data sets."

Jones encourages Australian businesses to give back to their community by sharing their knowledge and experience in the work they do.

"People often overlook the not-for-profit (NFP) sector as a whole but working with these organisations can have a range of benefits you may not have considered," he said. "There are of course the direct business benefits, potential client referrals and opening up new markets. But you may also be in a position where you or a loved one needs the support of these organisations. If we don't support them now, they won't be around when we need them."

ARTIFICIAL INTELLIGENCE. HOW IT CAN BE USED IN YOUR CONSULTING AND DENTAL TREATMENT ROOM.

Dr David E Clarke

BVSc, Dip AVDC, Fellow AVD, Dip AVDC-ZWD, MANZCVS

Registered Specialist, Veterinary Dentistry and Oral Surgery

Have you ever heard of Alexa or Siri?

Have you ever seen a self-driving car? Think Tesla.

Have you ever wondered how iPhone's face recognition works?

All of these technologies have something in common: they use artificial intelligence, or "AI." Artificial intelligence, or "AI," is the ability for a computer to think and learn, says Dr Maddie Bradshaw, BA, M.Ed, from Stanford University.

How else could we explain AI?

While addressing a crowd at the [Japan AI Experience in 2017](#), [DataRobot](#) CEO Jeremy Achin began his speech by offering the following definition of how AI is used: "AI is a computer system able to perform tasks that ordinarily require human intelligence. Many of these artificial intelligence systems are powered by machine learning, some of them are powered by deep learning and some of them are powered by very boring things like rules."

So, you probably use AI everyday of your life, without even thinking about it. When you use **Netflix** it often recommends other movies based on what you have watched before. That's AI! **Chatbots** on websites that help answer your questions. These chatbots are not typically run by people – they are AI! **Search Engines** like Google use AI to rank websites in your search results.

So how will AI change the way we do veterinary dentistry?

Scenario 1. We are all busy, rushing from one consultation to the next, limited time to completely evaluate the mouth and then explain it to the owner, all in front of a wriggly dog. Well imagine if your nurse could take a photograph of the mouth in reception, and then once you are in the consultation room, the AI had already marked up all the pathology ready for you to explain to the client.

Scenario 2. You are sitting in front of the computer trying to work out if the pathology on your dental radiograph is real or not. Meanwhile, your current patient is under general anaesthesia, you have two more patients for 'dentals', and 'consults' start at 3pm. Now imagine if you could upload your radiograph and AI would *immediately mark up* your pathology, as well as recommend treatment options. No waiting. Welcome to DAVID AI – *the new wave in dental x-ray AI*.

DAVID AI identifies dental pathology on the radiograph to assist the veterinarian in treatment planning, decreases incorrect diagnosis and ultimately prevents unnecessary dental procedures being performed, thereby improving the health outcomes for the patient.

Over the last 30 years, from my experience teaching at both the University of Sydney and Massey University, developing educational webinars and workshops, and through my current work in private referral practice in Melbourne, I have realised that students are not taught enough dentistry and many practicing veterinarians and nurses struggle with radiology techniques and

x-ray interpretation. DAVID AI was developed by collaborating with highly skilled IT developers to build a system using military software repurposed for veterinary dental radiology use.

DAVID AI is now available to the veterinary community via an app. One of my initial goals was to help veterinarians detect pathology and similarly not confuse normal anatomy with pathology and perform unnecessary treatments. But now, my primary goal is to provide affordability of advanced technology so that it doesn't negatively impact on the socio-economic situation of owners to afford advanced health and dental care.

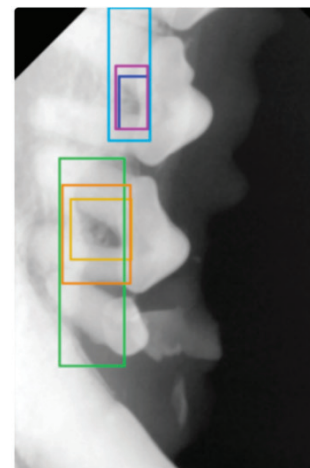
DAVID AI is positioned as a subscription model, and there is no limit on the number of photographs and radiographs which can be uploaded which makes it amazingly affordable. I like to think of DAVID AI as bottling the expertise I have built up over the last 30 years and distributing it around the world, all for the betterment of animal dental health.

Can you afford DAVID AI? The question is can your client afford 58 cents to have DAVID AI?

DAVID AI is designed to be affordable and accessible to all veterinary professionals with cost never being a concern. Based on 100 patients per month, DAVID AI works out at only 58c per pet. A monthly subscription of \$58/month or \$580/year grants unlimited access for a single clinic to upload as many images as they wish. As many photographs or radiographs, yes there really is no limit. We do not charge per radiograph series. The more you do, the cheaper it gets.

When would you use DAVID AI?

1. Improve work flow and improve consulting time efficiency, explain pathology to clients, get more 'YES' responses to performing dental procedures. Increase the use of technology in the consulting room. Have your nurses take photographs of the pet's mouth and upload to DAVID AI. Within seconds, NOT minutes, pathology (plaque, calculus, fractured teeth) may be identified. The veterinarian can then show the client and get

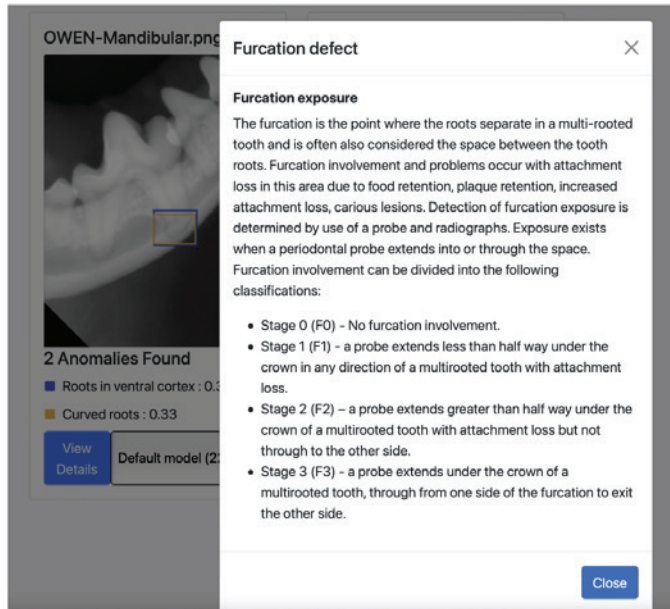


6 Anomalies Found

- Furcation defect : 0.78 ⓘ
- Furcation defect : 0.77 ⓘ
- Horizontal bone loss : 0.59
- Horizontal bone loss : 0.44
- Horizontal bone loss : 0.36
- Horizontal bone loss : 0.34

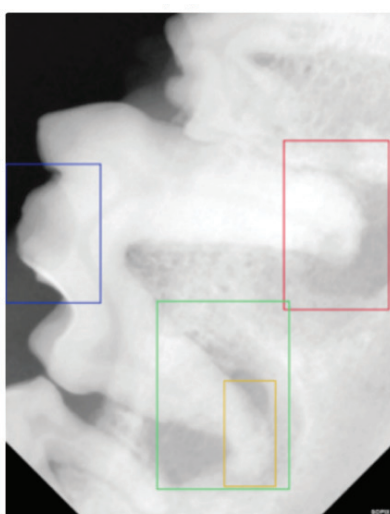
higher acceptance rates and book more accurate surgery time.

2. Improve radiographic interpretation, decrease incorrect diagnosis, increase procedures performed. After the patient is anaesthetised, take radiographs and upload to DAVID AI and **within seconds**, NOT minutes, you will have your radiograph marked up with the pathology. DAVID AI shows the probability levels of anomalies. Highlighting over 25 pathologies including fractures, bone loss, missing teeth, periapical lucencies, furcations, opacities and allocating labels.



Classifications and treatment options provided by dental specialists give clinical teams confidence and support.

Results are almost instant. There is no long wait so that treatment plans can fit right into a fast surgical workflow. Compared to other programs on the market, DAVID AI is super quick, no waiting around, no sending off radiograph series, hoping the result will return.



- 4 Anomalies Found**
- Periapical lucency
 - Crown fracture: complicated
 - Curved roots
 - Periapical lucency

I think the history of Artificial Intelligence is amazing

Intelligent robots and artificial beings first appeared in ancient Greek myths. In 1949 in his book *The Organization of Behavior: A Neuropsychological Theory*, Donald Hebb proposed the theory that neural pathways are created from experiences and that connections between neurons become stronger the more frequently they're used. Hebbian learning continues to be an important model in AI. In the 1950s, Alan Turing publishes the paper "Computing Machinery and Intelligence," proposing what is now known as 'the

Turing Test', a method for determining if a machine is intelligent, and Arthur Samuel developed a self-learning program to play checkers.

The birthplace of AI was in 1956, with the phrase "artificial intelligence" coined at the Dartmouth Summer Research Project on Artificial Intelligence, led by John McCarthy, who then in the 1963 started the AI Lab at Stanford University. Advance to the 1990s and the US forces deploy DART, an automated logistics planning and scheduling tool, during the Gulf War. Then in 1997 IBM's Deep Blue beats world chess champion Gary Kasparov. In 2008, Google made a huge breakthrough in speech recognition, and in 2011 Apple released Siri, an AI-powered virtual assistant.

One of my favourites was in 2012, when Andrew Ng, founder of the Google Brain Deep Learning project, fed a neural network using deep learning algorithms, 10 million YouTube videos as a training set. The neural network learned to recognize a cat without being told what a cat is, ushering in the breakthrough era for neural networks and deep learning funding. I wonder if the cat needed a virtual AI veterinary dentist. Maybe it needed DAVID AI? Then in 2014 Google made the first self-driving car to pass a state driving test, and Amazon's Alexa, a virtual home smart device, was released. Back to medicine and in 2020 Baidu released its LinearFold AI algorithm to scientific and medical teams working to develop a vaccine during the early stages of the SARS-CoV-2 pandemic. The algorithm was able to predict the RNA sequence of the virus in just 27 seconds, 120 times faster than other methods. OpenAI then released a natural language processing model GPT-3, to produce text modelled after the way people speak and write, as well as DALL-E, which is able to create images from text prompts. Then the "BIG ONE", in January 2023 in Orlando, USA, DAVID AI was released to the veterinary market to investigate photographs and dental radiographs. DAVID AI was developed based on military software.

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Artificial intelligence is so exciting, and myself and the team are so thrilled to be able to offer an extremely affordable clinical photograph and radiographic AI program for you to build your clinic and offer your clients and pets the most advance technology available.

PERTH INVENTOR DEFIES THE ODDS

Take a life-threatening illness and a childhood troubled by dyslexia, add in a brilliant engineering mind and a romance, and you have the Perth-based story behind Vet Sled - the latest invention to hit the world of animal care.

It's been a rollercoaster journey for former FIFO mining consultant Craig Stratton, who was tackling engineering challenges when he was just eight years old, building a go-kart from scratch and scrap for his younger brothers.

The childhood Meccano fan has been inventing ever since, but Vet Sled – a mobile treatment and grooming pen for large animals - is the first idea the born discoverer has turned into a commercial opportunity.

Along the way, he's endured schoolyard bullying on account of his dyslexia, as well as a fraught relationship with a father who told him he would never amount to anything. The barbed comments simply ignited his never-say-never attitude, motivating him to do better.

After leaving school in New Zealand at the age of 14, the young go-getter went on to become a sought-after problem-shooter in the forestry and mining industries. "You come to me with a problem, and I run through it in my head and come up with a solution," Craig said.

"I learnt the power of watching, observing and listening in life, and challenged myself to regularly think outside the box." It was the combination of out-of-the-box thinking and a life-threatening illness that led Craig to create Vet Sled.

Craig and his wife Julie, a nurse who he met 10 years ago, were living on a property in Oakford when he was struck down with complications following open heart surgery. He lost 50 per cent of his kidney function in just one month.

The couple subsequently discovered Craig was suffering from the rare autoimmune disease Goodpasture Syndrome, which targets the lungs and kidneys. It is estimated there are fewer than two cases per one million people.

During the 10 months of gruelling chemotherapy and steroid treatment that followed the diagnosis, Craig still took every opportunity to enjoy tinkering in his home workshop.

But it was his wife's miniature Shetland ponies that prompted his latest invention on the long road to recovery. Hard to manage, administering vet or farrier care to Missy and Sapphire was a challenging prospect.

"Having grown up on a dairy farm in New Zealand I knew getting larger animals to a vet was a problem," Craig said.

"I also knew there had to be a better solution."

The answer was Vet Sled – aptly named by Julie because of its unique ski-like base that enables it to glide over any surface. This ensures it can quickly and easily be towed into place in a paddock by a ute, quadbike or tractor. As well as the baseline single style, Vet Sled also comes in a double version suitable for holding a mare and foal together to help them both feel safe while care is being administered.

"By effectively bringing the treatment area to the animal, we can reduce stress on the animal, and save the vet and owner from the risk of being kicked or trampled," Craig said.

"They still have full access to the animal, which, even though contained, feels calmer and less panicked because it is in familiar surroundings."

As well as being horse-friendly, Vet Sled is also alpaca, llama, pony, donkey, pet pig and cattle-friendly.

Craig and Julie have worked tirelessly together to bring Vet Sled to market and believe it will have strong appeal for owners of large domestic and farm animals, trainers, groomers, vets and farriers.

"Julie was by my side throughout my illness and was instrumental in making Vet Sled a reality," said Craig.

"We are partners in life and now partners in business which makes for an exciting future."



GROUNDBREAKING STUDY ON FECAL MICROBIOME TRANSPLANTS IN FELINES WITH CHRONIC DIGESTIVE ISSUES

AnimalBiome is pleased to announce new research on fecal microbiota transplantation (FMT) in cats with chronic digestive issues. It's no secret that up until now, only two prior studies have examined this topic when it comes to the topic, and both papers used only two adult felines as subject matter.

The new AnimalBiome study is far more comprehensive, using 68 cats that experienced chronic vomiting, diarrhea, and/or constipation. When using FMT through an oral capsule and using many more subjects, **our research found a 77 percent success rate in relieving cats from the clinical symptoms.** The study also found that the fecal microbiomes of the felines under observation made modest but significant improvements because of the treatment.

Fecal samples were collected before and two weeks after transplantation. Overall, the results suggest that an oral capsule FMT treatment is effective for handling chronic digestive issues in cats, depending on their clinical signs, prior diagnosis, and diet.

To read the complete study go to: https://qrcgcustomers.s3-eu-west-1.amazonaws.com/account15612393/33814455_2.pdf?0.4143065098882861

AnimalBiome is the world's leading pet microbiome research company with award-winning innovative solutions such as the first at-home gut microbiome test for cats and dogs.

The company curated the largest databases of companion animal gut microbiome samples in the world to date, and has completed more than 40 studies with universities, pet food companies, and private research organizations since its inception in 2016. AnimalBiome's line of products include KittyBiome, DoggyBiome, and AnimalBiome Veterinary, seek to assess, restore, and maintain healthy microbiomes in pets. Learn more at AnimalBiome.com.

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WARNING TO PET ADOPTERS ABOUT FAKE PET RESCUE GROUPS

Leading national animal welfare charity Companion Animal Network Australia (Australia CAN) is warning pet adopters about fake pet rescue groups which are breaking hearts and draining bank accounts.

“The majority of pet rescue groups are run ethically by staff and volunteers who are dedicated and work hard to save animal lives,” said Trish Ennis, CEO of Australia CAN, a registered charity representing the companion animal welfare work of member organisations across the country.

“But sadly, there is a rise in scam pet rescue groups targeting people who want to adopt from a shelter or rescue. Scammers are impersonating real animal shelters and rescue groups or posing as people who want to rehome an animal and tricking the public into adopting pets that don’t exist.”

To raise awareness about pet scams, Australia CAN partnered

many dogs in the past, yearned for a loving companion once again. She fell in love with the cute little Cavoodle named Milo who supposedly belonged to a family with a terminal illness and could no longer look after him.

It was after Christine transferred the money that she got a Facebook message from ‘David’ asking for more funds to cover a broken travel crate, when she realised she was duped.

“I felt sick inside. I became quite unwell because of that. I didn’t know about pet scams and felt so stupid for not being more aware. I was in love with this dog and all reason went out of the window,” said Christine.

When PSAA posted about the scam in their Victims Support Group, they received a huge response from people wanting to donate a dog for Christine. PSAA is now organising for a suitable rescue dog to be gifted to Christine along with a box of doggy presents

It was after Christine transferred the money that she got a Facebook message from ‘David’ asking for more funds to cover a broken travel crate, when she realised she was duped.

with Puppy Scam Awareness Australia (PSAA), a dedicated organisation that brings awareness about the thousands of pet scamming syndicates who prey on pet shoppers, helps puppy shoppers spot a scammer and assists those who have been scammed. PSAA also works to report and shut down scammers’ online presence and helps victims try and get their money back.

“We are very concerned that pet rescue scams are on the rise,” said PSAA Founder Sandy Trujillo. “Sadly, many pet lovers are getting pulled into these online scams thinking they are legitimate and often take what scammers say at face value. There are hundreds of these pages on social media and the public are unaware of what the red flags are.”

When pet love is blind One victim of a pet rescue scam is 78-year-old Christine Jenkins who was scammed \$2.5K by a fake website called WoodPetsAU (which has now been shut down) for a 6-year-old rescue dog that did not exist.

Christine lives alone in her Sydney home and after having had

donated by Presents for Paws. Christine said PSAA’s intervention “made so much difference that the horrible experience is now fading into the background. I’m overcome with the kindness, generosity and response of people, and it restored my faith a lot.”

While Christine is looking forward to welcoming her rescue dog Max at the end of the month, she wants people to be aware of fake pet rescues.

How to tell if a pet rescue group is fake PSAA has found that most Facebook pages titled “rehoming and adoption” are fake.

“Genuine Australian pet rescue pages mainly use the word ‘rescue’, not ‘rehoming’ or ‘adoption’ which scammers tend to use. These scam pages always have cute puppy pictures, not older dogs that have been surrendered. That is the main difference,” explained Ms Trujillo.

She shared tips on making sure the rescue group, shelter or pound is not a scam.



Check if the rescue group is advertising in other places online and do a background check on the organisation and contact person.

With rescue groups, always check the comments and where people commenting are located. If most are from Australia, then it's safe to assume it is real.

Always speak to someone on the phone. Most Australian rescues have a website, contact and address details on their pages. Rescues will encourage you to view the animal in person and fill out application forms to see if you're an appropriate candidate to adopt an animal.

Avoid Facebook pages with the wording 'rehoming' or 'adoption'.

Many genuine rescues are public pages. Be wary of closed social media groups.

"I have noticed scammers have been creating closed groups called for rehoming or adoption. They have discovered these are harder to shut down. They will trick a person into thinking the group is for rescues but will post cute puppies in those groups to make customers want to buy them at very cheap prices," said Trujillo.

Check that the adoption fee is reasonable. Scammers may ask high prices for puppies, in particular, under the guise of having 'rescued' them.

Rescue groups / shelters usually have a mix of dogs of different ages. Be wary of rescues with lots of purebred puppies and few or no adults/senior pets.

You can check if the rescue group is a genuine non-profit organisation by looking them up on the website of the Australian Charities and Not-for-profits Commission (ACNC) www.acnc.gov.au.

Ask your friends and family about their experience with a particular rescue group and try to support ones that receive positive feedback.

Finding the right rescue group isn't an exact science – sometimes best to trust your gut.

Tips to choosing a responsible pet rescue group The aim of a responsible rescue organisation is to find a loving, forever home for animals in their care so they will want to help you adopt the

right pet, explained Ms Ennis.

She shared some tips on choosing a registered, responsible pet rescue charity for those who wish to adopt.

A responsible rescue group will invite you for a meet-and-greet with the pet at the shelter/pound or foster home.

They will make time to answer all your questions and ask about you, too.

They will offer the option of an adoption trial and provide you with post adoption support to help your rescue pet settle in their new home. If the adoption trial doesn't work out, the rescue group should take the pet back.

When you meet your prospective rescue pet, the animal must appear in good condition and well looked after by the rescue/shelter/pound.

The rescue group should provide paperwork from a vet clinic proving the animal is microchipped, vaccinated, desexed and health checked.

For a guaranteed pet to welcome into your family, contact an Australia CAN member in your state <https://australiacan.org.au/who-we-are/>

Resources

More info on fake charities <https://www.scamwatch.gov.au/types-of-scams/fake-charities>

How to spot a pet scam <https://australiacan.org.au/pet-projects/puppy-scams/>

For tips to avoid fake websites and a list of fraudulent websites www.puppyscamawarenessaustralia.com.au

If you think you are scammed, contact your financial institution right away. For more information www.scamwatch.gov.au



LEADING PET HEALTH BRAND ADVOCATE CELEBRATES LEGACY THROUGH NEW 'TRUSTED TO PROTECT' CAMPAIGN

Elanco, a world-renowned provider of pet health products, announces the launch of its latest campaign for its flagship parasite protection brand, Advocate.

The campaign highlights the unique trust held by pets and their owners.

With a focus on the trust that pets put in their owners, creative agency Pangea developed the "Trusted to Protect" campaign to showcase Advocate's legacy of building trust with pet parents in Australia since 2004. The campaign will leverage Advocate's partnership with the RSPCA as National Pet Health Partner, adding that extra level of trust for pet owners.

Karen Martin, Group Product Manager at Elanco said, "As they say, trust is the glue that holds great relationships together – and the bond between a pet and its owner exemplifies this trust. I feel like we have the best job in the world, strengthening that trust by protecting our furry friends from parasites."

"Our partnership with the RSPCA to keep shelter animals safe from parasites speaks volumes of the inherent trust the RSPCA has in Advocate. With nearly 20 years of providing reliable parasite protection to Aussie pets, it's time to celebrate this trusting bond and all that it represents."

Tim Holman Founder of Pangea, added, "Advocate brings together the best of both worlds: a strong legacy of solid protection, as well as real-world support for pets through their partnership with the RSPCA."

"Our new 'Trusted to Protect' campaign hits all the right notes, positioning Advocate as a trusted go-to for pet owners, old-school and new."

The campaign, which will run across various channels including TV, BVOD, digital, and social media will be supported with the #AdvocateTrustChallenge influencer campaign and an educational PR campaign led by Little Bike Communications, focusing on educating pet owners on how to build that trust with their pets.



THE FIRST AND ONLY REGISTERED ORAL LIQUID THERAPY FOR CATS TO MANAGE HYPERTHYROIDISM

The team at Norbrook® announce the launch of Thyronorm oral liquid for cats to manage hyperthyroidism in cats, the most prevalent endocrine disease in cats over 10 years of age.

Dr Michael Dhar, Norbrook's Technical Services Manager, comments "Cats with hyperthyroidism are difficult to treat because of the behavioural changes that occur with the disorder. Thyronorm oral liquid now provides Australian vets with a registered alternative to making their clients tablet a cat". Thyronorm oral liquid contains 5mg/mL thiamazole (also known as methimazole) that inhibits the production of thyroid hormone, in a palatable liquid formulation that has an ISFM (<https://icatcare.org/>) easy to give award.

Thyronorm is expected to ensure the pet parent bond continues with him adding "Thyronorm has been available in the UK since 2016, and when 200 vets were surveyed 99% of them were likely to recommend it's use."

With this endorsement we are sure that Australian vets and their clients will love this product too." Norbrook have been manufacturing medicines since 1969 to enhance the health of animals, "This innovative product was driven by vets voicing their frustrations at current therapy options, we are really proud as a company to have developed and delivered Thyronorm" he finishes.

Thyronorm provides a simple solution to the complex problem of feline hyperthyroidism.



ANIMAL CHIROPRACTIC CARE

Author: Dr. William Ormston, DVM

Chiropractic care is a drugless alternative method of health care that does not replace traditional veterinary medicine. Chiropractic care deals with the nervous system that is housed inside the spinal column.

The spinal cord carries all the nerves that go to every organ in the body. These nerves exit the spinal column through vertebra, which are the individual spinal bones. Chiropractic maintains that adequate nerve supply is vital to the proper functioning of the entire body. Modern medicine has determined that the weight of a dime placed on a nerve will decrease its transmission by 50%. When the vertebral bones are misaligned, even very slightly, they affect the nerves and the flow of nervous energy. Chiropractors call these small misalignments "subluxations."

A chiropractic adjustment is aimed at correcting the subluxation and restoring the proper functioning of the nervous system. Chiropractic thus works to eliminate the cause of the problem and not just simply treat the symptoms. Animal locomotion can be compared to a symphony orchestra playing a composition. "All parts must blend into a harmonious pattern, from the gentle sway of the head and tail for balance to the coordinated efforts of each limb and body muscle to accomplish its special function. Conversely, also like an orchestra, if all movements are not attuned to the whole, a major fault should be evident" (Roy 1971).

When the animal moves the hind limbs are the motors of locomotion and drive the trunk forward. Where the head goes the body will follow. Energy is generated when an animal horse collects its hind quarters. When motion is generated at the rear of the animal it travels fluently to the front like a wave. When that motion is interfered with, so is the motion at the front of the animal. Animals must have 360° of vision in order to survive. Use a food treat to get your patients to voluntarily turn their head and show the range of motion. The treat should be held at or near the shoulder. If the heads rotates it is signifying a problem in the upper cervical region. Partial bending followed by backing usually points to a problem lower in the neck or upper thoracic region.

An animal may benefit from Chiropractic care if he or she exhibits one or more of the following problems:

- Decrease in level of performance.
- Problems or difficulty executing desired movements.
- Short striding.
- Gait problems
- Behavioral changes
- Injuries resulting from falls, training or other activities.
- Muscle imbalance, spasms or atrophy.
- Diagnosed conditions, such as degenerative arthritis.

Stressful situations, such as poor conformation, training equipment, performance level and ability of the animal.

The animal's spinal column has over 100 separate joints. Each of these joints must function correctly for it to perform appropriately. The amount and direction of spinal movement is determined mostly by joint size and shape. The neck and tail are the most mobile regions of the animal's spine. Limited back movement occurs in up and down motion, side to side motion, and rotation. When an animal loses its normal range of motion in one or more of these joints there must be compensation elsewhere. Compensation may result in an altered gait. To return the joints of the spine to normal motion, an AVCA certified chiropractor will perform an adjustment on the area of the spine affected.

A complete chiropractic examination includes: Taking a case history. (what and how long), posture analysis (bad posture leads to improper organ function), gait analysis, and static and motion palpation of the spine.

Chiropractic adjustments are specific LOW FORCE, HIGH VELOCITY adjustments aimed to correct joint misalignments and to restore proper skeletal movement and muscle/nerve function. The movement within these joints is minute and therefore the adjustments by the chiropractor will be small but significant. Animal chiropractic adjustments are aimed to adjust one joint at a time and not the entire animal.

Chiropractic care takes time, since we are allowing the body to heal itself after the proper nerve functioning has been restored. Animals recover very rapidly as a rule, but older animals and more serious problems take more time. The speed of recovery depends on several factors:

The length of time that the problem has been present. The more time that has elapsed since the onset means that the recovery may take longer. It takes time to get sick and it takes time to get well.

Age and physical condition of the animal. Older animals are slower to heal. It is not possible to return a 24 year-old mare to a youngster, but the quality of her life may greatly increase with chiropractic care.

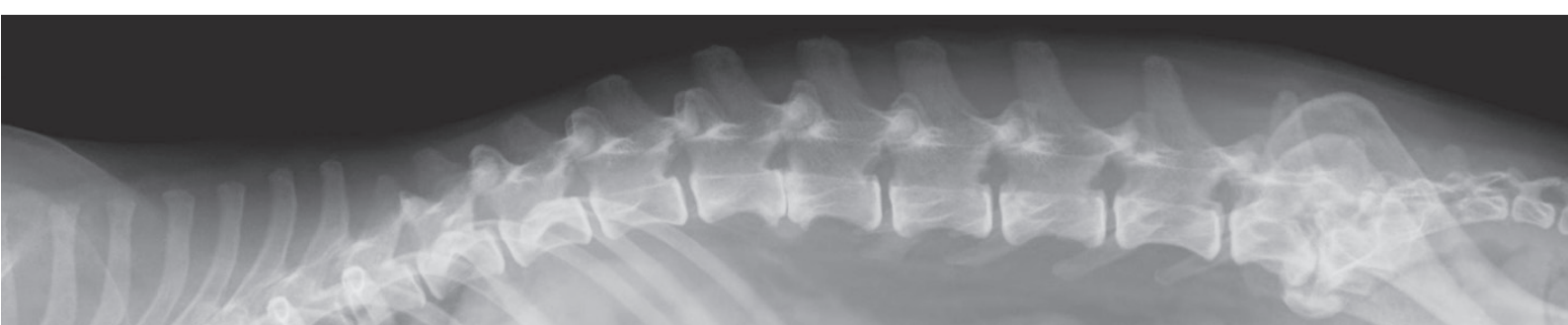
Damage.

Sometimes there is simply no repair for severely damaged tissues. For example, if the spinal cord is damaged by a ruptured disc, there may be slow and minimal healing with any treatment.

Cooperation.

The speed of recovery often depends on how well the owner will cooperate with the animal chiropractor who is treating his animal. If the animal is removed from care too soon, the best possible results may not be achieved.

The addition of chiropractic to a practice saves lives, allows owners the freedom to chose drug free care and decreases the stress levels of the veterinarian.



DOG-TECH START-UP KEEPS TAILS WAGGING WHILE OWNERS ARE AWAY.

Tapping into the \$13 billion pet market, Australian tech start-up Floofers is responding to the surge of new pet owners ushered in by the pandemic. With an industry transformed by the premiumisation of pet products and the humanisation of pets as family, the demand for flexibility, personalisation and regulated quality care has never been higher.

do more market research. "While pets have been around forever, they have steadily grown to become family members. Combine that with the fact that Australia has both a high percentage of pet ownership and one of the highest pet spends per capita, and you have a very viable start-up opportunity," said Rohit.

"What we've found is that many pet parents who welcomed a pet into their home during Covid tended to be people who work longer hours, which might be why they didn't have a pet prior,"

Floofers CEO, Rohit Vijayan

Founded in 2021, Floofers is an Australian app that connects pet parents with quality pet carers in their neighborhood using innovative digital technology that makes it easy to plan for your pets when you are away. Launching the mobile app in October 2022, the start-up has already had over 8,000 sign ups from pet parents and carers on their books from across the country, with an 162 % increase in growth in just 7 months.

For CEO, Rohit Vijayan, it was a less than ideal experience with a pet minding service for his beloved Groodle that inspired him to

More than 60% of Australian households own a pet, with the global pet industry poised to be a \$501 Billion industry by 2027. Moreover, a recent report from Animal Medicines Australia (AMA) found that Australia had a substantial boom in pet ownership throughout the pandemic, with \$30 million being spent on dogs and cats alone in 2021.¹

Rohit says "What we've found is that many pet parents who welcomed a pet into their home during Covid tended to be people who work longer hours, which might be why they didn't have a pet

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- ✓ Find a sitter or dog walker on the go
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- ✓ Make bookings via web app or mobile app

prior," says Rohit. "Now that those people are back in the office or taking a holiday they may be entering a new chapter of their lives as pet parents with new challenges - requiring new solutions that are being offered by Floofers."

The safety and wellbeing of pets is a major concern for pet parents when they travel or work long hours. Kennels and boarding hotels lead to stress on the pet, taking it away from the usual routine, environment and eating habits, as well as exposing it to unknown animals and diseases. There is also a lack of regulatory oversight on pet care within Australia, leading to players with less/no compliance or poor ethics.

With a focus on strict regulation, all Floofers pet carers are ID checked, police checked and have attained 100% in their online pet carer assessment, which includes a vigorous online course. Being with a trusted carer means the pet remains in its usual environment, routine and feeding habits, reducing stress and avoiding extra travel-related anxiety. In addition, every service booked on the platform is covered by top-tier insurance and premium support from a friendly, hands-on customer service team.

ABOUT ROHIT VIJAYAN:

Rohit Vijayan is a hands-on chief executive officer (CEO) with 16+ years of experience and expertise in business development, banking, automotive, insurance and hospitality industries. Before Floofers, Rohit worked as a Digital leader at one of the big four banks in Australia and also ran a consulting business in Australia and UK.

To fund Floofers, Rohit sold his assets to pull together the money he needed and has surrounded himself with a team of digital, marketing, brand, sales experts and advisors who together have plans to secure seed funding and grow the business further in 2023.

¹ <https://animalmedicinesaustralia.org.au/media-release/survey-reveals-the-spending-and-care-habits-of-aussie-pet-owners/>

Features and benefits of the app for pet owners include:

- Browse and contact pet sitters and dog walkers straight from the app
- Get regular updates from your booked pet carer
- Stress-free and secure payments for each booking
- Get a map of your dog's walk and a personalised note from your sitter or dog walker

For pet sitters and dog walkers:

- Enjoy the lowest service fees in the industry
- Getting paid is simple and secure with the Floofers app
- Seamlessly manage your profile and all of the services you provide
- Easily send photos and messages to pet owners with just a few taps



Rohit Vijayan and Auggie, his beloved Groodle who was the inspiration to start the business.

HOME PET EUTHANASIA ENDING STRESSFUL PARTINGS

61% of Australian households, according to the RSPCA, have a pet. And there is nothing more stressful for a pet owner than the day it comes to say goodbye to their animal and to have it put down.

Traditionally, this means taking the animal to a vet and having it put to sleep at the vet's surgery. Can you imagine how distressing this is for the owner and the animal in question.

As Dr. Audrey Harvey, the Veterinary Director of Rainbow Bridge In Home Pet Euthanasia, says, "Most pets hate going to the vet's surgery at any time. And that means that end of life services may be highly stressful for the animal and the owner. But there is another way to go about this."

Announcing Home Pet Euthanasia

Many people are unaware that they don't have to go through the process of taking their animal to a veterinary clinic, instead, they could have their veterinarians come to them.

At Rainbow Bridge, they've recently launched their home pet euthanasia service and that means that your pet can move on from this life in altogether better circumstances.

You choose the location that your pet will be most comfortable in, you can bring the people that will want to be there for your pet, and the procedure can be carried out at your pace (and your pet's pace) in a way that is comforting not distressing.

Audrey says, "It's very important to most pet owners to minimize the distress of their pet as well as that of their family when their pet passes. Our service is passionate about giving your pet a gentle way to pass, surrounded by their family in a place where they feel truly at home."

"We can't eliminate, entirely, that this is a set of unpleasant circumstances, but we can minimize the discomfort and distress caused by external factors. My team of Bronwen, Mel, Rachel, Kirsten and myself are all ready to provide your pet with a better, kinder passage from this life."

Planned End Of Life Care

"One thing we'd encourage in loving families is to talk about end-of-life care for your pet as a family unit before the end comes. If you can hold a constructive dialog about your pet when they are very old or have been diagnosed as terminally ill, you can start to think about their final experience."

Audrey continues, "This vital conversation ensures that you can plan the passing of the beloved animal and ensure that you are providing a gentle experience for them and for the people that they leave behind. Mourning a pet as the [Animal Health Foundation](#) says is as stressful as losing a relative."

And many people simply don't know that home euthanasia is a possibility, in fact, Rainbow Bridge has helped pets pass in a variety of locations where they would be most comfortable. This includes on the couch in a living room, by a warm, cosy fireplace and in places near the home like a beach or by a dam.

This also provides a safe space for mourning together as a family after the pet passes, and this can help provide emotional support to vulnerable individuals.

Service Constraints

It is worth noting that not every veterinary clinic provides this service, however, because of restraints on human resources. This is why Rainbow Bridge has developed this as a unique service offering – because while you may not have any choice about losing a pet, the way that they go matters.

She says that "the greatest gift of love that we can give to our pets is not to allow them to suffer. Their final days should not be the worst of days."

A courageous pet owner chooses home euthanasia to celebrate their pet's life and to allow those left behind to better manage their pain.



FREE SPECIALIST SERVICES FOR RESCUED SEA TURTLES



VetCT is providing free teleradiology reports and specialist advice to rescued sea turtles globally. Wildlife charities, zoos and clinics are invited to sign up to receive free advice from VetCT's team of experts to help with the treatment and rehabilitation of sick and injured sea turtle species.

The company, a world-leader in providing teleradiology, teleconsultancy and education

services, includes a team of exotics experts to advise on sea turtle diagnostic imaging and management. To date, clinics, zoos and aquariums in North America, Australia, South Africa and Europe have registered to use the free service.

Dr Trevor Zachariah, veterinarian at Brevard Zoo, FL, USA, says, "We have a green sea turtle, dubbed 'LJ', who had severe injuries presumed to be from a boat propellar blade. LJ had suffered full-thickness carapacial fracture with coelomic membrane exposure and entrapped lung tissue. We had managed the injuries for two months with vacuum-assisted closure, debridement, and bandage changes and performed a CT to check healing progress. The VetCT report was great, showing detailed annotations of fracture healing and remaining lung changes, guiding ongoing management and continued rehabilitation for LJ. It's great they're providing free reports and advice that helps us to treat these amazing animals."

Dr David Reese, Radiologist and Managing Director at VetCT Asia-Pacific says, "We are delighted to be working with partners globally to provide free access to our services for rescued sea turtles. Sustainability is a guiding principle in all we do at VetCT, and supporting this key marine species is vital for the future health of many delicate marine ecosystems.

Following the stories of these wonderful turtles to final release is also incredibly rewarding." In addition to providing veterinary support, VetCT has also been raising awareness through hosting in person and online sea turtle talks, running company-wide events to reduce plastic pollution, and fundraising for Wildlife Vets International, which supports conservation projects for sea turtles and other endangered species.

Organisations, clinics and charities wishing to access free services for rescued sea turtles should visit [canregister](http://canregister.com) by emailing sales@vet-ct.com.



THREE VETERINARIANS RECIPIENTS OF AUSTRALIA DAY 2023 HONOURS

Three veterinarians have been awarded Australia Day Honours this year. Dr John Craven was recognised as an Officer (AO) in the General Division of the Order of Australia for his “distinguished service to food biosecurity and environmental safety, to veterinary science research, and to the dairy industry.”

Dr Elaine Ong was recognised as a Member (AM) in the General Division of the Order of Australia for “significant service to veterinary medicine, and to animal welfare and rescue.” Finally, Dr Philip Holmes was awarded a Medal (OAM) of the Order of Australia in the General Division for “service to the livestock industry.”

Not only do these three individuals exemplify the dedication, commitment and value of veterinarians in their chosen areas, they have also each contributed to a number of different fields. This perfectly demonstrates the wide and far-reaching effects veterinarians have on the Australian community.

The AVA commends Dr Craven, Dr Ong and Dr Holmes for their outstanding achievements, and extends our warm and hearty congratulations to them all. Read on to find out more about these veterinarians and the incredible work that they do.

Dr John Craven AO

Dr Craven AO is based in Victoria and is a Life Member of the AVA. He has performed various roles in the Australian Agricultural and Food Standards industries throughout his career, the most recent stint being a Director of the Goulburn Broken Catchment Management Authority from 2011 to 2016. He was Chair of the Veterinary Schools Accreditation Advisory Committee at the Australasian Veterinary Boards Council for its first six years and subsequently chaired the Animal Ethics Committee at Swinburne University of Technology. In 2005, he authored the Craven Review of Veterinary Science Education and Registration Requirements, and earlier in his career worked for the Victorian Department of Agriculture and Rural Affairs and as an Academic Associate of the Veterinary Faculty at the University of Melbourne. A key career highlight was the opportunity to work with the dairy industry to help frame an investment program in R&D targeting improved dairy farm productivity. Reflecting on his career, Dr Craven says, “I am struck by my good fortune to have lived through an era when there were huge veterinary initiatives such as the Brucellosis and Tuberculosis Eradication Campaign, and investment in veterinary laboratories.”

Dr Craven considers his Australia Day Honour a chance to “reflect on the changes that have occurred over the past 60+ years of AVA membership” and the “huge, vibrant and diverse veterinary community” that has grown over the years. The veterinary community, he says, “is working miracles in optimising the health of our animals.” He considers himself fortunate to have been given “the gift of working with very talented colleagues on projects that we believed would benefit the community.”

The AVA commends Dr Craven, Dr Ong and Dr Holmes for their outstanding achievements, and extends our warm and hearty congratulations to them all. Read on to find out more about these veterinarians and the incredible work that they do.



Dr John Craven AO



Dr Elaine Ong AM



Dr Philip Holmes OAM

Dr Elaine Ong AM

Dr Elaine Ong AM was the Principal Surgeon and Owner of Balwyn Central Veterinary Hospital (1995 to 2021) but still always found the time to dedicate herself to extensive volunteer work in the animal welfare and rescue space. In 2016, she founded Vets For Compassion (VFC), a charity organisation that operates in Victoria and has volunteers from New South Wales, Queensland and New Zealand.

VFC's predominant role is as a volunteer Emergency Response team, working "hand in hand with ... other ethical agencies," according to Dr Ong. They provide a critical animal welfare service to the Australian community by dispatching volunteers to humanely capture, rescue and treat any and all animal species affected by natural disasters in Victoria and NSW. Dr Ong headed the Team for the Mallecoota fires and Lismore floods. Additionally, they operate in Melbourne on a daily basis, helping to humanely capture injured and displaced animals including macropods, cattle, horses, deer and goats.

Dr Ong's other related volunteer activities include being part of the Emergency Response Team during the 2004 Sri Lankan Tsunami, having a Train the Trainer project in China since 2009, as well as being involved in the Bali Street Dogs team.

Dr Ong says she is "truly humbled by this award" but emphasises that her Australia Day Honour is the result of a team effort, thanking "the team at Balwyn Central Vet Hospital who take care of [the] patients, clients and clinic while [she goes] away to do welfare work." She also highlights the incredible work of VFC volunteers: the veterinarians, veterinary nurses, wildlife rescuers and drone pilots who give up their precious time to help animals during both natural- and man-made emergencies. Dr Ong acknowledges the long legacy of unpaid wildlife work in the veterinary industry, saying that "most vets and clinics in Victoria have long done unpaid work for wildlife, and other animal welfare work ... without expecting financial reward." This makes her "proud to be part of this caring profession," and says VFC is "about building sustainability, not about building an empire."

Finally, she thanks the AVA, for being "instrumental in the disaster response during Black Saturday by forming a Task force which Dr Ong was a key part of, and during the Mallecoota fires with the AVA providing supplies, moral and logistical support.

Image: the core team of VFC volunteers in front of their triage van during the Lismore floods. From L - R: Dr Adam Williams from Wangaratta Veterinary Clinic, veterinary nurse Natalie Iskov from Wangaratta Veterinary Clinic, Dr Chris Barton from Eltham Central Veterinary Hospital, VFC founder Dr Elaine Ong AM, Dr Katie Whittle from Peninsula Vet Care, rescuer and ambulance driver Jacob Watt and VFC photographer Melanie Dove.

Dr Philip Holmes OAM

Dr Philip Holmes OAM has had a long and illustrious career contributing to the livestock industry. In 2017, he co-authored the Australian Beef Report, a comprehensive analysis detailing the productive and financial performance of the Australian beef industry. He was also the Consulting Editor for Beef Improvement News at The Land newspaper for five years, was Lead Researcher for the North Australian Beef Industry Situation Analysis in 2009 and 2013, developed the Business EDGE Training Package for Meat and Livestock Australia in 2014 and has founded and worked in various other companies in the agricultural sector.

On the academic side, Dr Holmes has been an Adjunct Professor at the University of New England's School of Environmental and Rural Science since 2018 and was previously an Honorary Fellow at the University of Sydney's Faculty of Agriculture.

Like his fellow honourees, Dr Holmes acknowledges the teamwork and support network that contributed to his achievements, stating "I would not be where I am today without them." For those in earlier stages of their careers, Dr Holmes says that a veterinary degree "can launch you into an infinite number of fields of interest, arguably its major strength" and hopes "the attraction of rural pursuits increases over time with new graduates, as there are so many opportunities."



Image: the core team of VFC volunteers in front of their triage van during the Lismore floods. From L - R: Dr Adam Williams from Wangaratta Veterinary Clinic, veterinary nurse Natalie Iskov from Wangaratta Veterinary Clinic, Dr Chris Barton from Eltham Central Veterinary Hospital, VFC founder Dr Elaine Ong AM, Dr Katie Whittle from Peninsula Vet Care, rescuer and ambulance driver Jacob Watt and VFC Photographer Melanie Dove.

GREENCROSS VET HOSPITAL OPENS AT THE UNIVERSITY OF MELBOURNE

Greencross Pet Wellness Company is proud to announce the official opening of Greencross Vet Hospital at the University of Melbourne in Werribee.

The purpose-built, spacious 3000 sqm facility features 14 modern consultation rooms, three state-of-the-art surgical theatres, and specialised wards for high-dependency and intensive care patients. There are also dedicated zones within the hospital for dogs, an exclusive cat only ward including consult rooms, and an area devoted to exotic pets.

In partnership with the University of Melbourne, opening Greencross Vet Hospital will ensure GP and specialist veterinary services continue to be available to the local community, while supporting the University of Melbourne veterinary students gain valuable practical educational advancement.

Lead by Emergency and Critical Care Specialist and Clinical Director, Dr Liam Donaldson, Greencross Vet Hospital is expected to treat more than 23,000 animals each year.

Dr Donaldson became a specialist in Emergency and Critical Care in 2019 after completing a residency at the University of Melbourne, where he obtained a dual master's degree in Veterinary Science (MVSc) and Veterinary Studies (MVS) as well as publishing a thesis that examined how lidocaine interacts with the immune system in dogs undergoing abdominal surgery.

Medicine students will gain experience in emergency, critical care, GP, diagnostic as well as building up their skills in client communication.

Moira O'Bryan, Dean, Faculty of Science at the University of Melbourne says "We are very proud of our Doctor of Veterinary Medicine course and remain committed to ensuring high quality clinical teaching and learning outcomes for our students.

"This partnership will allow our students to experience a significant section of their clinical practice here at Werribee and gain exposure to a broad range of clinical opportunities throughout their placement. We are excited to work together to deliver great service and educational outcomes for our students and the community."

Greencross' Vet Services business is led by Chief Operating Officer Dr Michelle Kellaway, a veterinarian with an extensive executive career, who is passionate about education.

Dr Kellaway's team at Greencross is heavily vet lead, consisting of veterinarians and veterinary nurses who have years of clinical and specialist emergency experience, some of whom graduated from the University of Melbourne.

Greencross Vet Services Chief Operating Officer Dr Michelle Kellaway says, "This is a wonderful milestone and an extremely proud occasion for both Greencross Pet Wellness Company,

"I'm extremely excited to be leading the team at Greencross Vet Hospital. As a critical care specialist, offering GP services, advanced diagnostic imaging and specialised care as well as an emergency hospital at the one location is really special and unique as it means we're able to provide to exceptional care to pet parents,"

Dr Liam Donaldson

"I'm extremely excited to be leading the team at Greencross Vet Hospital. As a critical care specialist, offering GP services, advanced diagnostic imaging and specialised care as well as an emergency hospital at the one location is really special and unique as it means we're able to provide to exceptional care to pet parents," says Dr Liam Donaldson.

Greencross Vet Hospital will also feature advanced diagnostic imaging services, including high-field MRI and CT in addition to radiography, ultrasonography and fluoroscopy providing a full suite of services for animals in the Werribee area. The GP and specialist referral services are available for small animals and exotic pets, with 24/7 emergency services expected to be added in the coming months.

Greencross Vet Hospital will also be adding additional specialist services including neurology, oncology and internal medicine. The sheer size of Greencross Vet Hospital means a range of specialists will be available onsite ensuring the most advanced pet health care and services for clients in the Port Phillip area.

In addition to meeting the veterinary needs of the community, Greencross Vet Hospital and University of Melbourne are committed to supporting excellence in academic outcomes for the next generation of vet professionals. Doctor of Veterinary

University of Melbourne, the cohort of Veterinary Medicine students and the pet community in and around Werribee.

"Clinical placements are an important part of training for all veterinary professionals. We are thrilled that through our partnership with the University of Melbourne, Greencross veterinarians and vet nurses are able share their experience and knowledge with the next generation."

Greencross Pet Wellness Company is Australia's largest pet care provider. The Greencross Vet hospital at the University of Melbourne is one of the company's newest additions to Greencross' veterinary network, which consists of 166 GP clinics and 26 Specialist and Emergency hospitals and adjacent specialty businesses across Australia.



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VETERINARY STUDENTS RAISE THEIR HAND TO HELP SOLVE REGIONAL WORKFORCE CRISIS

A recent survey of Australia's veterinary students shows 100% of respondents would consider working in a regional or rural practice if their HECS debt was wiped.

The survey, run by peak body The Australian Veterinary Association (AVA), presents a clear solution to help address regional veterinary shortage which has now reached crisis point, leaving many communities without access to essential veterinary services.

“We are pleased to see the Federal Government make further progress that supports the education and health care of Australians in the regions,”

AVA President Dr Bronwyn Orr

The survey results follow the announcement from Education Minister Jason Clare that up to 2,000 of Australia's most remote teachers can have their HECS debt cut by \$35,000 this year.

This is on top of the Albanese Government's announcement in November 2022 that it will wipe the HECS debt of doctors and nurse practitioners who live and work in the most remote parts of Australia.

AVA President Dr Bronwyn Orr said it's now time for the Federal Government to prioritise veterinarians, particularly at a time when burnout and poor mental health is taking a huge toll on the sector.

“We are pleased to see the Federal Government make further progress that supports the education and health care of Australians in the regions,” Dr Orr said.

“But it's high time that we saw a similar level of interest and support for our veterinarians.

“Vets are vital to the success of the agricultural sector, which contributed \$71 billion to the Australian economy in 2020-21.

“The current skills shortage of vets in the regions is crippling the industry, and if urgent support is not delivered we may see the rural and regional veterinary workforce collapse.

“That's why we have lodged a Budget Submission urging the Federal Government to better support the profession by wiping HECS debts for new grads, bolstering the biosecurity role of vets, and prioritising mental health support for the profession.”

The four recommendations put forward in the AVA 2023-24 Federal Pre-Budget Submission are:

1.

Attract more vets to regional communities: Introduce a Rural Bonding Scheme (HECS Forgiveness Scheme) for graduate veterinarians. AVA estimates that this would cost \$19.23 million over four years (\$4.80 million per annum) and would wipe the HECS debt of 80 new graduates per year, boosting the veterinary workforce in these critically important regions.

2.

Prioritise veterinary workforce sustainability: Invest in better data collection, analysis and workforce planning to ensure that future veterinary demand is matched by supply in a way that provides sufficient veterinarians, whilst realising the return on investment from veterinary training.

3.

Formalise the role of veterinarians in biosecurity policy through funding models: The Australian government's commitment to the biosecurity system should include increased investment in veterinary services, particularly rural and regional.

4.

Improve mental health support for veterinarians: Introduce sectoral support of the veterinary profession (\$3 million over four years) to establish a national veterinary profession-led approach to improve veterinarian wellbeing and improve career satisfaction and sustainability via veterinary-focused mental health education campaigns, whole career mentoring/ support and an accessible 24/7 veterinary friendly counselling service.



VETERINARY PEAK BODY WELCOMES BIOSECURITY REPORT, RENEWS CALL FOR MORE RURAL VETS

The Australian Veterinary Association (AVA) has welcomed the latest Senate report on improving Australia's biosecurity measures and response preparedness.

The report specifically recommends that the Australian Government work with relevant industry bodies to improve the capacity and capability of production animal veterinarians, particularly in rural and remote areas.

AVA Head of Veterinary and Public Affairs Dr Cristy Secombe said the report's recommendations acknowledge the critical role vets play in detecting and managing biosecurity threats, demonstrating the need for more sector support.

"This report highlights that preserving a robust biosecurity system requires a thriving veterinary community, particularly rurally. Attracting and retaining rural vets is complex and challenging and we welcome the report's acknowledgement that a coordinated

response between government and industry is required to address this issue" Dr Secombe said.

"We look forward to working with the Government to implement these recommendations and improve our biosecurity measures."

Importantly, this report stresses the need to enhance veterinarian attraction and retention strategies through graduate and rural practice incentives. One of the initiatives to address this is for the Federal Government to wipe the HECS debts of veterinary graduates who live and work in rural and remote areas.

"We have been strenuously advocating for the Federal Government to wipe the HECS debts of new veterinary graduates who live and work in the regions, but we are yet to hear a clear answer. Dr Secombe said.

"If they can do it for doctors, they can do it for veterinarians."

"We have been strenuously advocating for the Federal Government to wipe the HECS debts of new veterinary graduates who live and work in the regions, but we are yet to hear a clear answer.

AVA Head of Veterinary and Public Affairs Dr Cristy Secombe

BACKBONE ACADEMY AUSTRALIA 2023 Course Schedule

FOR TECHNIQUE LABS MODULES

Module 1-2 April 26th – April 30th

Module 3-4 June 7th – June 11th

Module 1-5 August 4th – August 5th

Course Registration is only through the Academy website:
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The course fee for the Australian 2023 course is \$8,000.00 Australian Dollars for all five modules.

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The course is certified through the **BackBone Academy** and recognised internationally by the **IVCA, AVCA, and COAC.**

We teach you to diagnose and adjust horses and small animals with light hands.

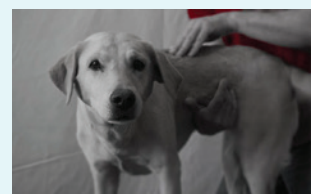


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We teach veterinary chiropractic therapy in Australia to Veterinarians and Chiropractic Doctors to:

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PETS LIVING THEIR BEST LIVES

PREVENTIVE CARE OFFERINGS HELP VETERINARIANS DETECT ISSUES SOONER

IDEXX Laboratories, Inc. (NASDAQ: IDXX), a global leader in pet healthcare innovation, today announced a cancer screening test for adult and senior dogs, further expanding the most comprehensive portfolio of products and services available to support veterinarians with preventive care in the U.S.

In addition, IDEXX announced an extensive study of over 220,000 patients shows that IDEXX preventive care testing reveals clinically relevant findings* across adult life stages for up to 1 in 5 dogs and 1 in 3 cats, emphasizing the benefits of comprehensive annual wellness testing.¹

“Just as pet owners want the best care for their pets, veterinarians want the deepest diagnostic insights on their patients for confident decision-making,”

Jay Mazelsky, IDEXX President

“Just as pet owners want the best care for their pets, veterinarians want the deepest diagnostic insights on their patients for confident decision-making,” said Jay Mazelsky, IDEXX President and Chief Executive Officer. “IDEXX is proud to add a canine cancer screening test to our advanced menu of preventive care solutions to help veterinary professionals detect life-threatening diseases earlier and ultimately improve patient outcomes.”

IDEXX’s expanded preventive care solution now includes:

IDEXX Nu.Q® Canine Cancer Screen, a more accessible way to screen adult and senior dogs, or younger dogs of at-risk breeds, for a disease that impacts nearly 6 million yearly in the U.S.² This expands the comprehensive cancer diagnostics test and service

menu at IDEXX Reference Laboratories, which helps veterinarians identify cancer, understand personalized genetic markers, and determine diagnostic protocols for therapy management and monitoring.

IDEXX Preventive Care Simple Start, a new program designed for the capacity-constrained practice, complete with staff training, custom diagnostics profile development, and ready-to-use client communications, all supported by a dedicated team to make implementation seamless.

Fecal Dx® antigen testing, recently expanded to include flea tapeworm antigen testing, detects up to five times more of the most common intestinal parasites than fecal flotation alone.³ The IDEXX 4Dx® Plus Test now includes new markers that offer earlier detection of antibodies for Anaplasma acute infections, detecting up to 30% more positives with increased sensitivity.⁴ Together, these tests provide veterinarians with comprehensive parasite screening to confidently assess the risks for their patients.

When diagnostic testing reveals abnormal findings, IDEXX DecisionIQ™ helps veterinarians make informed clinical decisions with confidence by applying intelligent insights to patient-specific data and delivering next-step considerations alongside results in VetConnect® PLUS. IDEXX DecisionIQ currently supports a number of conditions, including vector-borne disease infections and chronic kidney disease. This month, IDEXX will begin the release of several new features that indicate a pet’s risk for endocrine conditions and support veterinarians with diagnosis, treatment, and monitoring.

Veterinary professionals attending the 2023 Veterinary Meeting & Expo (VMX) on January 14–18, 2023, are invited to visit the IDEXX booth (#2033), or one of its educational sessions, to learn more. Those not attending VMX can learn more about IDEXX Preventive Care solutions online at idexx.com/preventivecare.



QUAY CONTENT MARKETING LAUNCHES INTO THE VETERINARY SECTOR

QUAY Content Marketing, a new business vertical dedicated to supporting small to medium sized businesses, launches into the veterinary sector today. QUAY Content Marketing brings a unique offering to the market in the form of content marketing packages designed for the veterinary practice.

The new packages offer an effective solution for practices who may be time poor, need communications and marketing support and are seeking a consistent voice and approach for their communication channels.

Uniting its brands, QUAY Communications and QUAY Content Marketing, the QUAY Group Agency enables those in the health sector (human and animal) to connect with their audience at the right moment and with the right message. It does this by diversifying its services in the market and providing bespoke solutions via QUAY Communications and tailored packages via QUAY Content Marketing.

Managing Director, QUAY Group Agency, Cheryl Pettinau comments, "After a rewarding ten years in business delivering customised strategic programs, we identified an opportunity

to meet our evolving client needs. We understand how small to medium sized practices work and have created a range of tailored content marketing packages to meet everyone's business objectives. Anchored by the team's expertise, we are proud to launch QUAY Content Marketing which complements our business heritage and retains what our clients value – creative, insight-led and measurable projects."

The range of packages are strategic, affordable and can help busy veterinary practice teams to share meaningful information, profile their expertise and have a consistent connection with their clients.

QUAY Content Marketing can help small businesses and practitioners to create the narrative around their products and services and develop sustainable communication channels to support business growth.

QUAY Content Marketing launches onto the Australian market on 1 March 2023.

NEW STUDY FROM WALTHAM PETCARE SCIENCE INSTITUTE, SHOWS CANNABIDIOL (CBD) IS EFFECTIVE AT REDUCING STRESS IN DOGS

Single dose of THC-free CBD reduced stress in healthy dogs

The study, conducted by the Waltham Petcare Science Institute, was published today in *Frontiers in Veterinary Science*.

Results from a study performed by the Waltham Petcare Science Institute shows a single oral dose (4 mgs per kg of body weight) of THC-free cannabidiol (CBD) can significantly relieve multiple measures of dogs' stress caused by car travel or being left alone.

The aim of this randomized, placebo-controlled, blinded study was twofold:

- To understand the impact of a separation event and car travel on canine stress.
- To establish if a single dose of a THC-free, broad-spectrum CBD could positively influence measures of canine stress during these two events.

The study was run by the Waltham Petcare Science Institute, part of Mars Petcare, and published in *Frontiers in Veterinary Science*. Another recent WALTHAM study showed a once-daily oral dose (4 mg/kg of body weight) broad-spectrum THC-free CBD over a six-month period to be safe for healthy adult dogs. Together, this research adds to a growing body of evidence around the safety and efficacy of CBD for dogs.

"We know pet owners try various approaches – from training to medications and supplements – to help their dogs cope with stressful situations often with mixed results," said Dr. Jennifer Welser, Chief Medical Officer of Mars Veterinary Health. "We're focused on scientific inquiry that generates knowledge that can inform pet professionals' and pet owners' decisions. So, this study is important because it gives us new evidence that CBD at the

dose studied can be beneficial for dogs in specific circumstances."

The blinded, randomized, placebo-controlled study looked at how CBD impacted the experience of 20 dogs in two commonplace activities that were anticipated to cause stress - car journeys and being left alone. Researchers collected a range of physiological (e.g., blood levels of cortisol, ear temperature, heart rate) and behavioral measures (e.g., whining, trembling, panting) at different times during the study. There were significant changes in several stress-related measures, with the car journey eliciting a more pronounced stress response.

Dogs then received either a placebo or CBD capsule (~4mg/kg bodyweight) and, two hours after administration, were exposed to either the separation event or car travel. Researchers found multiple measures of the dogs' stress improved following administration of CBD. Specifically, dogs treated with CBD were scored as significantly less "sad," had significantly lower cortisol levels, exhibited less whining and were in a more relaxed emotional state overall than dogs that received a placebo.

Mars does not manufacture or sell products with CBD. Currently, CBD is mostly available as an unregulated supplement. In the UK, new CBD food, drink, or supplement products require an approved Novel Food application to enter the market. CBD products are regulated in many US states. In the European Union, CBD use as an ingredient or an additive in pet food is still under review by the regulatory authorities and not yet approved

ANIMAL ZOOMIES

Does your cat or dog suddenly get a burst of energy and perform athletic feats around the house that would make even a gold medallist jealous? Welcome to the world of zoomies.

Zoomies involve intense periods of high-energy activity including running, spinning, jumping and rolling. All at top speed.

A proposed scientific name is frenetic random activity periods (FRAPs). In rabbits these high activity periods are called “binkies”. But many cat and dog owners simply call them “zoomies”.

So why do our animals experience the zoomies? And is it something we should be worried about?

Why do animals get the zoomies?

Think about when your cat or dog gets the zoomies.

You might see post-bath zoomies, dog park-zoomies, midnight-zoomies and good ol’ out-of-nowhere zoomies.

The trigger may be excitement or a sudden increase in stimulation.

In cats, a commonly reported trigger is using the litter tray. This may be explained by “poo-phoria”, a feeling of euphoria following defecation. This is possibly caused by large bowel movements stimulating the vagus nerve, resulting in positive feelings and a drop in heart rate and blood pressure.

Zoomies can be characterised as play as the two behaviours share many of the same characteristics. This would make zoomies intrinsically pleasurable – in other words, a whole load of fun.

If the zoomies are occurring as part of your animal’s regular play routine, this indicates your animal is happy and enjoying themselves.

While we don’t yet know if zoomies are more likely to occur at certain times of the day, or more in some breeds compared with others, we do consider them a general indication of a high level of excitement – and likely a pretty good mood.

Humans are animals too and some people also experience what could be similar to the “zoomies”.

Ever get a sudden feeling of intense excitement and spare energy? Maybe you’ve felt the need to jump, shake or dance, before it wears off and you’re back to your regular settings.

This can be caused by a multitude of things – an exciting or novel situation, a spike in energy after an extended period of resting or perhaps a change in your inner chemistry. Perhaps you got a rush of adrenaline caused by excitement, over-stimulation or stress.

Are zoomies always a sign your cat or dog is happy?

It’s important to remember animals are individuals and, just like us, why they behave the way they do is complex and multifaceted.

When assessing your animal’s behaviour, it’s essential to also assess the context.

Zoomies are mentioned a lot online, but there is a real lack of scientific research on what causes them, how often they occur, or even an official definition of what they are.

Ask yourself: am I invited to the zoomie?

In dogs and cats, zoomies can include an invitation for others to join – in dogs this is most commonly a play bow, where the dog appears to “bow” to another in an effort to signal it is keen to play – followed by a pause commonly seen in dyadic play (play between two or more individuals).

In cats, an invitation may include physically interacting with you or repeatedly rolling over. If this is the case, your animal is likely experiencing excitement and a desire to interact with you.

What do I do during a zoomie outbreak?

Unless there’s an element of immediate danger (such as zoomies on or near a road) there is no reason to stop your cat or dog from enjoying their burst of fun.

Cats and dogs are often superstars at avoiding obstacles even at high speed. If you’re lucky enough to receive invitations to partake in the chaos, feel free to join in the play.

Enjoying shared activities such as play with your dog or cat can have many benefits for the human-animal relationship. It’s also a lot of fun for you!

When should I be worried?

Zoomies are usually a completely normal (and fun) part of being a dog or cat.

Sometimes, however, it may be a symptom of either stress or an underlying medical condition.

As always, context is key. You should consult with your veterinarian if your dog or cat is displaying the behaviour for extended periods of time (in particular, spinning, or behaviours occurring during times of confinement). These might be signs of a repetitive behaviour disorder.

If you struggle to distract or stop the behaviour, or if it is resulting in injuries, seek veterinary assistance.

Even if you don’t get the call of the zoomies yourself, take a moment to stop and enjoy your dog or cat having fun.

Sometimes we all need to run wild.



THE 2023 AUSTRALIAN DOG OF THE YEAR IS REVEALED

DOGS RECOGNISED FOR INSPIRING & MAKING AN IMPACT IN COMMUNITIES AUSTRALIA WIDE.

From Seizure Alert Dogs and Psychiatric Assistance Dogs to Blood Donor Dogs, Conservation Dogs and Police Dogs, and every honourable pooch in between, the Australian Dog of the Year Awards have once again confirmed just how remarkable and inspiring our doggos are!

Puppy Tales announces the **2023 Australian Dog of the Year** and **People's Choice Award** – dogs recognised for inspiring and making an incredible impact in the lives of people and communities.

“With these awards, we’re reminded again and again of just how incredible our doggos are, and seen how ordinary Paw-stralians from all across Australia have helped their people, made a difference to others and be outstanding fur-citizens in the communities that they live in,” said Kerry Martin, international award-winning pet photographer and founder of *Puppy Tales*, a website aimed at helping pet owners make the most of life with their fur family.

You can read all the finalists’ full entries here <https://puppytales.com.au/australian-dog-of-year>

The 2023 Australian Dog of the Year will receive a \$1000 donation (by *Puppy Tales*) to the registered charity of the winner’s choice, a \$1,000 photography experience with *Puppy Tales* Photography and a \$250 Gift Card from Pet Circle. In addition, there is the People’s Choice Award and Gift Cards for 14 finalists – total prize pool valued at more than \$5,000!

“The Australian Dog of the Year Award pays it forward with a generous donation from *Puppy Tales* to the winner’s preferred charity and recognises the work they do for communities across the country,” said Kerry.

Australian Dog of the Year

Baloo, seizure alert dog

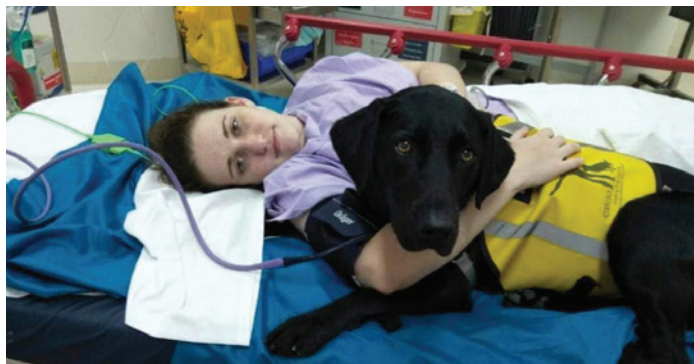
Ipswich QLD

Chosen charity: Epilepsy Action Australia

Dani Stevens, 28, lived with uncontrolled epilepsy for 11 years and could not be alone at any time. Then Baloo came and not only saved her life multiple times, but also gave her independence.

“Baloo alerts 3 to 5 minutes prior to oncoming seizures. She’s saved my life multiple times, including when I’ve stopped breathing and required CPR. She also protects me from falls daily. Baloo has given me back my life back. She’s my little shadow. At nighttime, she sleeps on my bed and wakes me up at night and barks to alert,” says Dani Stevens.

Dani Stevens, 28, with Baloo



People's Choice Award

Elton, assistance dog

Canberra NSW

Chosen charity: Stella Bella Little Stars

Elton is an assistance dog for 7-year-old Charlie who has autism, an intellectual disability, and a severe heart condition.

“Charlie’s had over 120 hospital admissions and has already had 2 strokes and 7 heart surgeries. Elton has been with Charlie for some hospital admissions and is learning to help with seizures. He protects Charlie. What comforts Charlie is getting a big hug from Elton. He brings light to very hard times,” says mum Melissa Clode.

Special Mentions

Kerry found all the finalists and many other nominations to be amazing dogs but would like to give a special mention to finalists **Keegan** and **Delia the Labradors**.

Kerry said, “Keegan is an amazing guide dog and like all dogs in this role has given his human Janice independence and the ability to complete 118 park runs to be crowned a QLD Stateperson. He also senses and settles her after PTSD flare-ups.

“And Delia is a Psychiatric Assistance Dog to Suzanne who has PTSD and anxiety from her service in the Navy. Delia has given Suzanne the ability to leave home - she’s a lifeline to the world.”

Elton is an assistance dog for 7-year-old Charlie



AUSTRALIA AND WORLD EXPERTS JOIN FORCES AGAINST ANIMAL DISEASES

PREDICTIONS AND INSIGHTS ON INFECTIOUS ANIMAL DISEASES IN THE ASIA PACIFIC WILL BE SHARED IN VICTORIA THIS WEEK AS CSIRO, AUSTRALIA'S NATIONAL SCIENCE AGENCY, HOSTS EXPERT NETWORK MEETINGS OF THE WORLD ORGANISATION FOR ANIMAL HEALTH (WOAH, FOUNDED AS OIE).

World experts are gathered in Victoria this week to share predictions and insights on infectious animal diseases in the Asia Pacific as CSIRO, Australia's national science agency, hosts expert network meetings of the World Organisation for Animal Health (WOAH, founded as OIE).

Co-hosted by the Australian Government Department of Agriculture, Fisheries and Forestry, the meetings are bringing together animal disease policy makers with more than 50 leading international researchers in avian diseases and African swine fever at CSIRO's Australian Centre for Disease Preparedness (ACDP) in Geelong.

"The World Organisation for Animal Health works closely with members and partners such as the Food and Agriculture Organization of the United Nations and the World Health Organization to prevent, detect, control and eliminate health threats at the human-animal-plant environment interface"

Dr Hirofumi Kugita

ACDP Director Trevor Drew said the discussions are crucial ahead of an expected peak in avian influenza cases later this year.

"While Australia is currently free of highly pathogenic avian influenza and African swine fever, both pose significant risks to our poultry and pig industries respectively," Professor Drew said.

"By collaborating and sharing knowledge on these and other emerging pathogens with our neighbours, we can help improve the region's preparedness against emerging infectious diseases and reduce the risk on our own shores," he said.

The meetings are also being attended by the Australian Chief

Veterinary Officer, Mark Schipp, who said Australia is proud to be hosting these network meetings for the first time.

"Transboundary animal diseases such as African swine fever and avian influenza know no borders. Along with strong national surveillance, biosecurity and preparedness measures, international collaboration is essential in preventing the emergence and spread of these diseases, and sharing global expertise," Dr Schipp said.

"Over this five-day event, international experts from Asia and the Pacific will meet in person to share scientific information and discuss new diagnostic and vaccine technology around African swine fever and avian diseases. Progress in these fields will be essential to the regional control and prevention of these diseases," he said.

Hirofumi Kugita, Regional Representative for Asia and the Pacific at the World Organisation for Animal Health, said the organisation is committed to improving global animal health and welfare.

"The World Organisation for Animal Health works closely with members and partners such as the Food and Agriculture Organization of the United Nations and the World Health Organization to prevent, detect, control and eliminate health threats at the human-animal-plant environment interface," Dr Kugita said.

"Early detection and reporting of disease is one of the key things that helps all countries be better prepared to respond to disease threats.

"WOAH is committed to supporting members through regional networks like these, as well as through programmes to contribute to the development of veterinary services capacity and capability in the region.

"This also entails improving communication and trust with stakeholders and governments to support WOAH members in reporting disease and implementing our international standards," he said.



Zinc: Plaque's natural enemy



BRUCE ADDISON, Veterinary Microbiologist • Addison Biological Laboratory, Inc.



"Plaque forms within 24 hours, calculus within 3 days and gingivitis begins as early as 2 weeks."

— WSAVA.org

Pet oral health care is an ongoing challenge for pet owners and veterinary teams. Periodontal disease is the number one health problem in small animal patients, according to the American Kennel Club. By age 3, more than 80 percent of dogs and cats have some form of periodontal, or gum disease. Pet owner resistance to in-clinic dental procedures that involve x-rays and anesthesia is well known.

To optimize pet health, **the starting point for comprehensive oral care must be in the home** where bad breath is the primary warning sign. Most veterinary clinic personnel miss the opportunity to educate pet owners about daily oral care and promote in-home solutions for their pets.

*Quite simply,
"a chew alone
won't do."*



Working with natural zinc compounds, Addison Biological Laboratory pioneered the use of a natural, zinc-based compound that is safe for daily use, inexpensive, taste-free and provides excellent pet acceptance. The unique formula works to break down plaque on contact and can be used daily without brushing.

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"Zinc is well documented to tie up sulfur compounds in the oral cavity which are a primary cause of bad breath, the first signal of impending dental disease." — Bruce Addison, Veterinary Microbiologist, President and Founder

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