

CANINE NEUROPARK®

# PAWZETTE



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## Our People

**Editor in Chief**  
Felicity Wolfe

AlloyMedia NZ

**Creative Directors**  
Felicity Wolfe & Bono f Beeler

**Experts**  
Elena Saltis

Bono f Beeler

Lisa Storm

Adele Curran

Christina Rock

Helen Robartes

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**Web Team**  
Felicity Wolfe  
Bono f Beeler



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# Neuropark News

As in every edition of the Pawzette, we would like to Welcome all new Neuropark Members and say a big Thank you; to our “renewee’ s” as well of course .

## Subscription Renewals

All memberships are now on subscription, meaning you will get a reminder when your subscription is close to expiring and another email when your subscription has ended.

Unfortunately, this part of our booking system is NOT automatic, and we are also not notified. So, we rely on you to message us through the chat box or wait until the end of the month for the renewal invoice to be sent out with the paypal payment link.

Such is life !! 😊



## Who we are pages

The “who we are” pages will feature at the end of each publication in case you need to find us for information and support

## Please, Keep to your booked time!

We received a few emails from members who lost time from their booking because the field was not vacated by the previous booking. Please stick to your booked time. If something happens and you over-stay a few minutes engage with the other member, so they know you are not doing it on purpose. They may be able to help you. Overstaying on purpose is just not ok.

## Bookings in March

Between 15<sup>th</sup> & 29<sup>th</sup> March 2023 bookings will have to be made 12 hours in advance. I will share more information for emergency like broken locks on our Facebook page closer to the time.

Please let us know if the lock falls and breaks apart as the code will scramble and the member after you might find it hard to get into Neuropark. It is best to hang the lock, closed, on the fence or use it to lock yourself in.

## Peripheral Fencing....

It was a bit windy the last few days, so our peripheral fencing suffered. Please keep your dog in the maze if dog walkers and dogs get to close to Neuropark. I try and fix it as soon as possible

## Dog Poo

Please pick up your dog's poo. I know we can miss them doing their business and if they are doing it in the higher grass, it sometimes is hard to find it.

However, as stressed so many times now, we have 350+ members and for everyone to have a good experience, everyone has to contribute by sticking to the terms and conditions. We don't write the T&Cs to piss members off, but to get everyone on the same page. This includes picking up dog poo. So, Thank you in advance!

## Rescheduling

Rescheduling booking is easy. If you don't know how to reschedule, please check out our YouTube link we shared in our Terms & Conditions.

Be advised, Rescheduling IS NOT available on the Spaces-App.

To Reschedule your booking, you do have to login to your Neuropark Account via our website on a desktop, laptop or smart phone

Regards and best wishes to everyone

Bono & Elena





***“A well-fitting harness is very important”***

#### What to look for in a properly fitting harness for your dog

- The harness should not have to be tight to stay in place. You should be able to slip your hands easily into any area of the harness and when the dog is pulling forward, you should not feel any pinching or discomfort anywhere.
- The limbs should be allowed to go through their normal range of movement and not have any resistance, blocking any normal functional movement.
- There should NOT be a strap across the chest or over the shoulder or scapula! This is very important. Animal Physio NZ sees many patients with shoulder joint, scapula or biceps tendon injuries due to badly fitting harness with chest or scapula straps
- There should be equal weight distribution – meaning, there should NOT be an area of the harness that is preventing the dog from pulling but rather equal weight distribution throughout the harness



## Why a well-fitting Harness is always better

Elena Saltis **BSC, NZPT, CCRT, NZAVPA**

There are many different types of harnesses out there, how do you know which one is the best for your dog?

There are several things to consider when purchasing a harness for your four-legged friend, as pulling on a lead with a collar, head halter, choker chain, no-pull harnesses or even a badly fitted harness can cause all kinds of problems from permanent damage to the trachea to abnormal biomechanics of the body.

Even if your dog is not a lead puller, simply getting spooked while walking and jumping forward, jumping away, leaping etc can exert a huge amount of pressure to the neck structure of the dog and can cause injury.

#### Example of a well-fitting H-shaped harness



## The negative impact of a “Halty” or Head Halter

- Alters the normal movement and biomechanics of the head, spine and TMJ

As these devices restrict normal biomechanics, they can cause injury to the Temporal Mandibular Joint (TMJ), Cervical Spine and the Head

Altering a dog's biomechanics is a serious matter. It can lead to malalignment of the body, setting it up for injury or overuse syndromes. It is very important that the body can move in a normal way as nature intended.

**“ The issue with these devises is that they don't normally inflict an acute injury but due to overuse cause chronic injury. So, the damage occurs gradually over time and these sort of injuries can be difficult for an owner to detect”**

Elena Saltis BSC, NZPT, CCRT, NZAVPA

## Damage Collars & Chockers can cause:

- > Can damage Cervical Spine
- > Can put pressure and damage on the Trachea and Esophagus
- > Puts pressure and damage on the Vagus nerve
- > Puts pressure on the Vascular System
- > Can damage Lymph nodes
- > Affect Thyroid function
- > Alters Biomechanics
- > Encourages improper body compensations

“

The brain is entombed in the body, and every interoceptive signal from the body influences every action, from chemical electrical changes, motor prediction, memory,... to behaviour output. Our body, brain and mind are not separate, they are deeply entangled as one.

”



# The Sensorium – Part 1: Interoception & Allostasis

By Bono f Beeler

Over the next few editions, we will write about a specific sense – how they work & measure regularities in the outside world in relation to the body moving within that environment and how predictions are confirmed or updated.

We will start with the body in which the brain is entombed in and which the brain serves by predicting the needs of the body and meet those needs before they arise, to ensure efficient metabolic energy regulation.

The brain can only do so because of the signals sent from the body about its inner state via the vagus nerve to limbic areas, compare with its predictions about the needs of the body and influenced by past experiences (Memory). This process of the bodies' sensing of its internal changes and the brain's calibrations of those physical sensations is called: Interoception

It is vital for survival that the brain has access to the bodies internal state for efficient metabolic energy regulation called “Allostasis” – meaning “stability through change”. Allostasis & Interoception are tide together. As the brain anticipates the imminent needs of the body and prepares to satisfy them before they arise, interoceptive signals ascend along the vagal nerve, informing the brain with data about the sensory consequences of that regulation. These measurements either confirm or update the brains predictions. (Prediction Errors)

This two-way “body – brain chatter” of transmitting signals from & to visceral organs like the lungs, heart, gut / digestive-, endocrine, immune and autonomic nervous systems to the brain, cascade away through large scale neuronal networks and also construct physical states and feelings (affect /

mood see figure 2, page 8); spectrum of positive and negative, aroused and calm values. These feelings are a feature of consciousness, and the physical representations are influencing not just the imminent actions for metabolic regulation, but every perception our brain builds about the body and the world it moves in, every memory consolidated or recalled, every prediction to calibrate motor and visceral actions and thus guides every behaviour output.

This insight matters and should give us an understanding why aversive training gadgets and methods should be avoided. With every pull, pressure check, click, sound, shock as well as sound of our speech, food & toy rewards, physical and social interaction,



## Interoception; why it matters

we influence the metabolic regulation and interoceptive messaging of the dog(s) and owner we interact with and thus the very nature of how they will feel and conceptualize the experiences. The very experiences which – depending on importance to the physical & mental / brain states- will be consolidated as memory during sleep from the hippocampus to the cortex.

We are not just talking about conscious memory about the “What happened to me where and when” but motor and visceral actions of how the brain & body navigated situations efficiently or not, to survive.

Interoception & Allostatic processes are mainly subconscious unless something is physically wrong, needed or particularly effective, but arise as conscious feelings / mood (Affect). Our affective state is a summery, a balance sheet metaphorically speaking, of our physical & allostatic state. If the “balance sheet” looks economically positive, the brain and body is well equipped to adapt to the world, explore, move, exploit, learn, be more sociable, generally be better able to adapt and recover from stress; be overall healthy in body & mind / brain. However, if the allostatic load is high, meaning that balance sheet is in deficit, our adaptability to changes, stressors, sociability, attention, learning etc will decline and if not replenished it will negatively affect the physical and mental health, affect our sleep patterns and may lead to metabolic illnesses such as depression, heart disease, stroke just to name a few. Few signs & examples of metabolic illnesses in dogs: less adaptable & predict situation and / or things in the environment easily as threatening (the so called “reactive” dogs), depression, anxiety, lethargy, thyroid disorder, Cushing's or Addison's disease...

We can make huge differences to our own dogs' allostatic regulation by using positive training methods with unexpected, positive reward choices, training gadgets / tools which don't inflict discomfort or pain or change the dogs' natural biomechanics, nurturing close and positive bonds, healthy diet, relaxing walks that take the dogs' natural exploratory needs into account and generally give our dogs more agency and support in stressful situation.

Canine Neuropark was literally built to have a positive impact on your dog's allostatic regulation, interoception and mood. That is why our “mantra” is to always address the physical first and to make use of Neuroaprk NOT as a dog park, but as an exploratory rehab park.

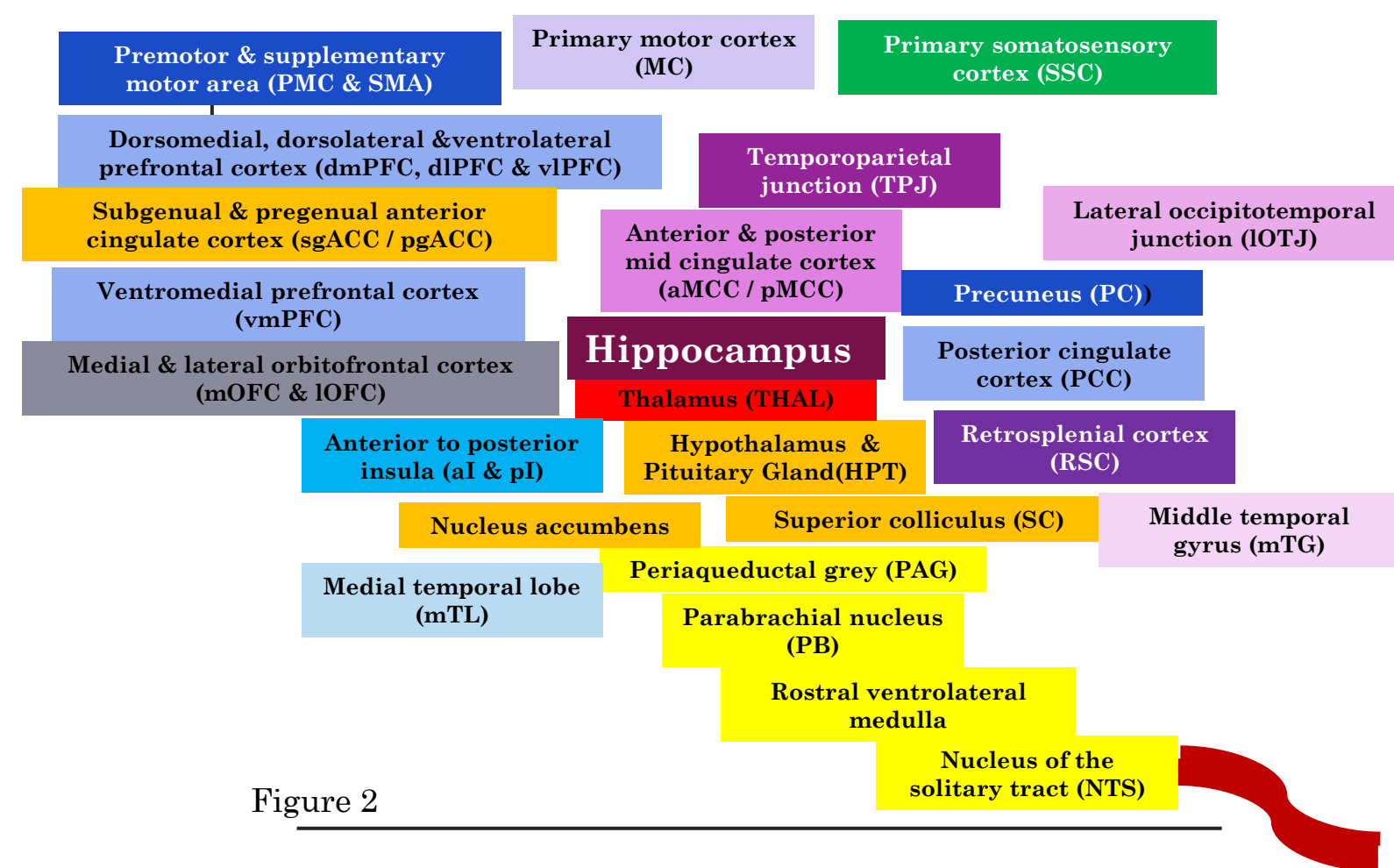
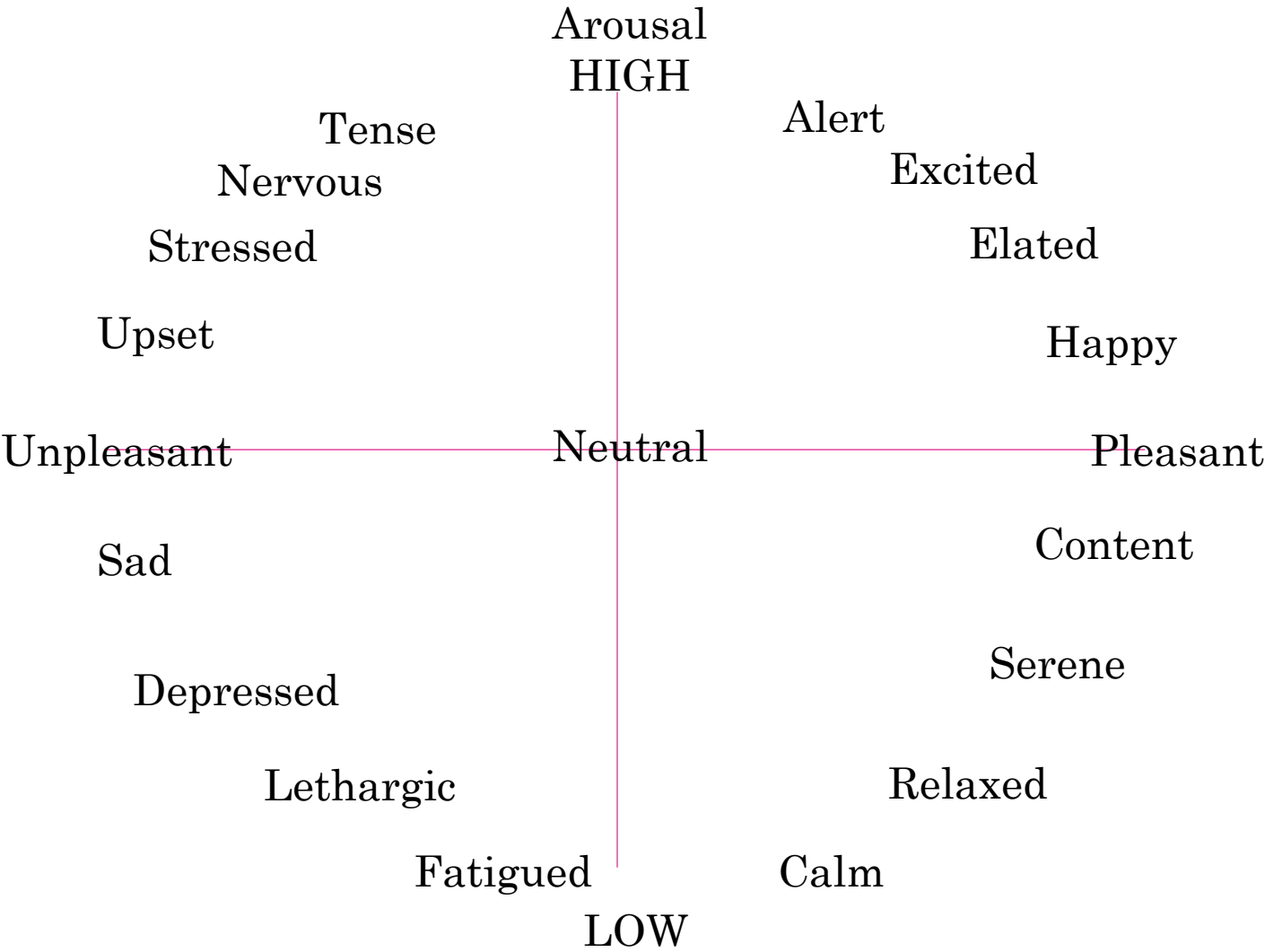


Figure 2

### Above: Networks supporting Interoception & Allostasis

**Figure 2:**  
There are two large scale, intrinsic networks. The Default & Salience Networks. These overlapping networks which support allostasis and interoception are implicated in sensation & other functions such as: attention, learning, consciousness, memory, emotion, reward, affect, language, pain, social affiliations, cravings, stress, judgment of others,...

Figure 2:



# Affect – a feature of consciousness

Bono f Beeler

“Affect” is a neurophysiological state, a feature of consciousness accessible as simple feelings on a spectrum of pleasant or unpleasant and highly aroused or quiescent or any concept in between which the brain builds from interoceptive & allostatic information.

These simple feelings are part of the building blocks, alongside prior experiences (memory) and other incoming sensory data, for emotional concepts.

We don’t know if brains of animals such as dogs construct emotional concepts similar to how human brains build emotional experiences. Thus, this should be an even greater incentive for humane, positive and force free treatment of animals including our dogs

“The brain evolved not to represent anything but to help its host body to survive and reproduce”

Dr György Buzsaki  
Neuroscientist and Author of “ The Brain from Inside Out”



# Nociception

The nervous systems process of transducing noxious stimuli such as tissue damage of mechanical (pressure, swelling, abscess, incision, tumor growth), chemical (toxic substance, infection, ischaemia), thermal nature (burn, scald) or the threat of damage via chemical electrical pathways to brain areas which compare the messages with its expectations and calculations of motor actions needed to avoid / respond to the danger and constructs the “chemical – electrical chatter” into conscious affective experiences / instances of pain.

Nociception is involved in interoception. Some may argue nociception is a form of interoception. In either case, it thus affects metabolic regulation and “affect”, just as interoception does and influences behaviour output.

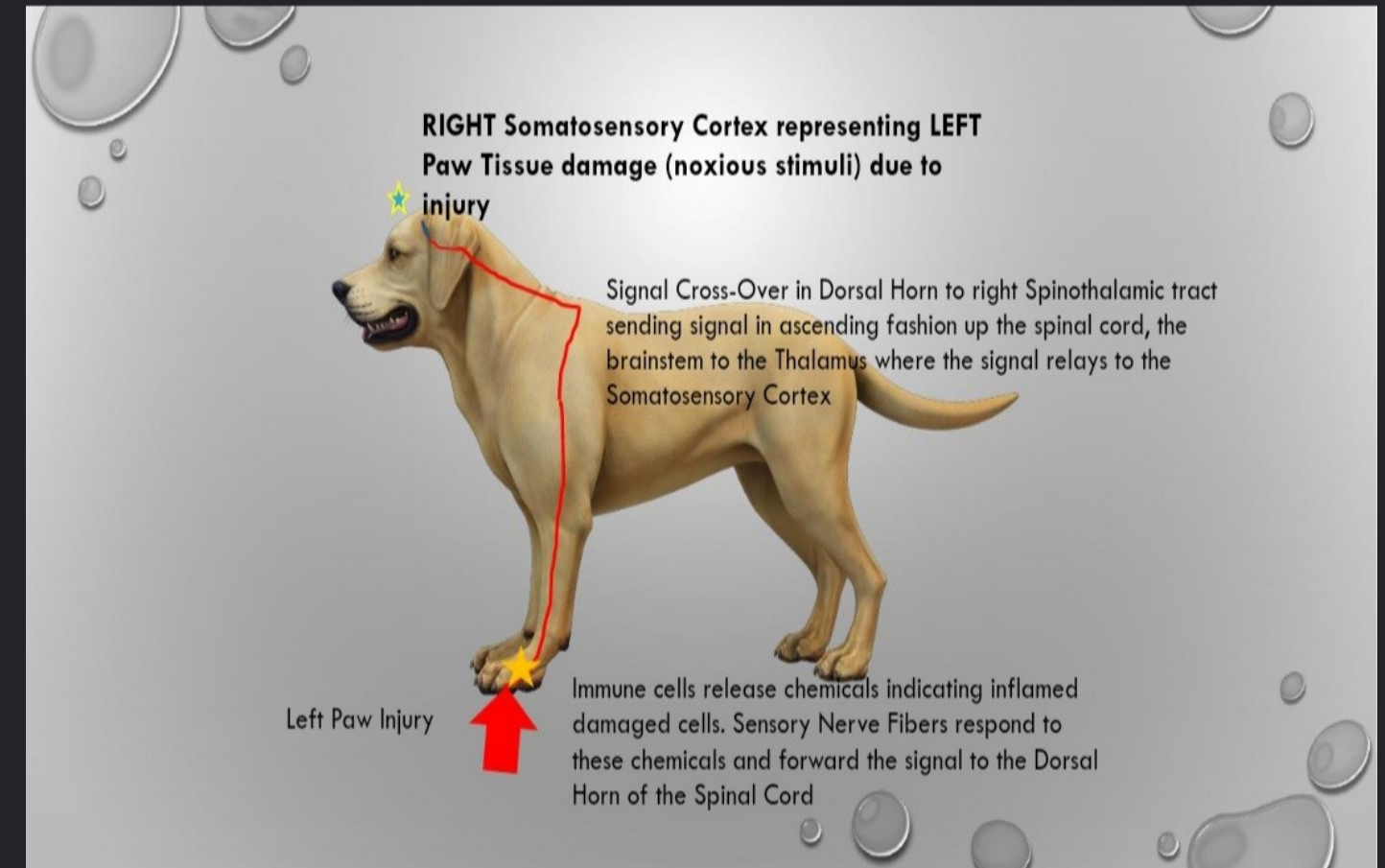
The training gadgets and methods we use can inflict noxious stimulation and thus activate these nociceptors and a cascade of neuronal chatter.

The reason devices such as head halters, no pull harnesses, chockers, even clicking the lead at the chest or side of a harness work is, because there is tissue damage or the danger of it calibrated by the dog's brain.

It is the dogs' brains anticipation of the noxious stimuli, then confirmed by the nociceptive, interoceptive and allostatic data that keeps the dog from pulling. Some dogs pull harder or even lounge forward to try to escape the negative affective experience.

These things I had never thought about until I learned about these processes. We thus shouldn't feel guilty as long as we learn and change our approaches.

I am human like everyone else and feel frustrated if a dog say, pulls. The trick of changing ones frustration into a positive energy and work with the dog is, to remember that dogs' don't pull to annoy us but because there is a physical & mental reason. It just means it's a little work to be a good detective to find the reasons for behaviours we don't like.



“

...for head collars, this means it is time not just for professionals, but for guardians in general, to step away from their use.....

”



Adele Curran

## Head Collars & Their Implications

In recent years, head-collars have had their rise and fall in dog training. While there are some dogs who are trained to wear a well fitted head collar and have loose leash manners, their purpose is commonly attributed to controlling a dog who is deemed “unruly” on the lead. This is to provide a tighter rein on their ability to pay attention or investigate other things in their environment and necessarily causes discomfort due to pressure on the sensitive nose area and through their body.

While the average guardian doesn’t view such equipment in this harsh light, the more we learn about dogs and training methods, the better we can inform

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ourselves and make better decisions for our dogs’ wellbeing.

issues our dogs can experience on the lead.

For head collars, this means it is time not just for professionals, but for guardians in general, to step away from their use and focus instead on improving training methods and their application.

While they can indeed provide a person more control over the direction of a dog’s gaze, the fallout for them is both a spike in stress, increase in stress signal displays, increased discomfort and a reduction in enrichment during their walks.

Some people have recommended the use of head collars to teach a dog how to walk on lead, or when working with a reactive dog. The advertisements for them spout often about a “cure-all” for

Their use as a “solution” in training lead walking is, therefore, ethically problematic and counterproductive to our training goals.



## Do Head Collars even work?

To the contrary, preliminary research has suggested that dogs might not actually be pulling any less than if they were on a harness. This is not to claim that the guardian's experience of the pulling hasn't lessened; the head collar may have in fact improved the experience on the human end of the lead. This could be because the point of "pulling" is no longer coming from the dog's torso; the strength and sensation of pulling has been transferred to the dog's sensitive muzzle and neck.

Additionally, they cause discomfort and sometimes pain for a dog when they try to turn their head away. If they can't help themselves and pull towards a distraction, the pressure is directed onto their muzzle through their body, twisting their neck around with force into an unnatural position. Studies suggest that head collars can in fact worsen the reactivity of a dog by further reinforcing negative associations of pain when they are triggered by something they are sensitive to, such as cars or other dogs. If used in conjunction with a short lead or handling technique that enforces the dog's head to be held high, the dog is prevented from engaging with their environment whatsoever; the "walk" turns into just that – trotting mindlessly next to their human handler in discomfort with no enrichment or freedom.

As you know, training by creating unpleasant experiences for our dogs when they do things we don't like (called "positive punishment"; i.e., smacking a dog on the nose for something you don't like) is against our ethos. We aim to build relationships based on mutual trust and respect by using humane, force-free, science-based training methods, based on our dogs' natural instincts. While we cannot speak for every case, head collars are very unlikely to be the best option for the vast majority of dogs and their handlers.

What can you do instead?

Loose leash walking is an important skill that we want to teach by rewarding our dogs for making good choices. We set them up for success by giving them foundational skills prior to exposing them to distractions on their walks. Adding distractions gradually and increasing the difficulty of environments at your dog's pace, rather than expecting them to be fine with everything, maximizes your training successes. Furthermore, exploring the world through sniffing and mooching is critically important for a dog's mental health and emotional wellbeing.



As strong advocates of enrichment and letting our dogs be dogs on walks, we strongly urge guardians to strive to meet the mental, emotional and physical needs of their dogs regardless of equipment used. Besides training, maybe consider long line walks in nature; you might find that both of you enjoy them much more anyways.

The next time someone asks you about head collars, consider sharing this information with them so they can make more informed choices.

<https://kiwicanine.co.nz/blogs/choosing-right/head-collars>

Adele Curran

# Who We Are



**Elena Saltis** BSc, NZPT, CCRT, NZAVPA

Elena completes her BSc Physiotherapy degree at the Ohio State University in the USA. She has since worked as a human physiotherapist in the USA and in New Zealand. Previously, Elena owned PhysiotherapyNZ Ltd in Christchurch, encompassing numerous Physiotherapy Practices. She then went on to study at the Canine Rehabilitation Institute in the USA and then became an Instructor on the CRI course for USA and Australia. She has attended numerous post graduate courses in Canine Rehabilitation in the States and Australia in particular, advanced spinal manipulation, sports medicine, prosthetic / orthotics, advanced manual therapy and rehabilitation.

Elena also runs rehabilitation courses for Veterinarians worldwide. She is deeply passionate about sharing her skills and knowledge.

Elena is Co-Owner and managing Director at Animal Orthopedics Christchurch (AOC), an orthopedics surgery clinic.

Elena is a member of the New Zealand Animal & Veterinary Association and previously the Secretary for 10 years. She is passionate about philanthropy and has a clinic in Spain with a rescue sanctuary for Galgos. She has also set up "Street Tails" service to help care for homeless peoples' dogs in Christchurch and is the Co-Founder of Canine Neuropark®



**Bono f Beeler** BCCSDip.Can.Bhv.Prac.

After the completion of the Swiss Chefs Apprenticeship, Bono spent most of his 20's and half of his 30's in hospitality as a chef and later as a chef and Restaurateur. Familiar of dog obedience and agility from courses in childhood with other people's dogs, Bono completed a 2 years Diploma study with the British College for Canine Studies in 2013 including their practical assessment. Bono added certificates in Geology, the Fundamentals in Neuroscience with Harvard X and attended many seminars on dog behaviour as well as presenting "Roaming with Hounds", "Emotions and Hounds" and "Pain in the brain" at separate symposiums. Bono is continuing his studies into the predictive aspects of the brain & body and the effect of behaviour output – "Active Inference" – and how this changes aspects of training and behaviour modification.

Bono is the owner & Operator of SpeakingDog K9 Services as well as the Co-Founder & Operator at Canine Neuropark®, also heading its longitude field study "RBAAMAI" (Behaviour Adaptation, Arousal & Mood Spectrum by Active Inference")

**Helen Robartes** BSc (Physio), MSc (Vet. Physio with Merit), NZ Physio Board-Registered, MPNZ, MNZAVPA, MANZAVPA, MIAVRPT, Cat A (overseas) ACPAT, HCPC-UK, PEI Permitted Equine Therapist (Physio)

Helen is enthusiastic and passionate about helping animals and humans to be happy, pain-free, moving well and living their best lives. Qualifying as a human Physio at the University of Stellenbosch in 2007, and as a veterinary Physio at the Royal Vet College of London in 2012, Helen works with her patients to help them perform their best, prevent injury, optimize their recovery and have the best quality of life. Helen is based in the Hawke's Bay, and also travels through the lower North Island and upper South island. Helen enjoys collaborating with other veterinary professionals, teaching students, being a Physio (I LOVE and am FASCINATED by my work!) and aims to return to university in the future to do further research in this field.





# Who We Are

## Adele Curran BSc Psychology

Adele began her ongoing work with dogs in 2015 while completing a BSc in Psychology at the University of Canterbury, alongside additional papers in biochemistry, animal behaviour, Bioethics and Environmental Ethics. The mechanisms underpinning animal behaviour became a driving force for her future studies, and she now studies Canine Psychology & behaviour (Ad. Dip) with the ISCP to further her species-specific knowledge.

The venture into dog training wasn't intended. On her days off she went in search of lighter relief and while out and about she found Christchurch Bull Breed Rescue (CBBR) looking for volunteers. Seven years later and Adele is still at CBBR one day per week as a duty manager and training support for foster carers.

Adele has been working with Sit Happens since 2018. Her main focus is on behaviour modification in complex cases, and develop general core life skills and also holds puppy classes to educate dog owners



## Christina Rock BVSc, CCRT

Christina is a qualified Canine Rehabilitation Veterinarian, trained through the Canine Rehabilitation Institute. As a canine rehabilitation veterinarian, she provides comprehensive rehabilitation care to canine companions, sport competitors, and working dogs. Her thorough functional assessments of the canine neuromuscular system give particular attention to form and function of soft tissues as well as skeletal health. Treatments provided include manual therapies (joint mobilization, soft tissue manipulation, trigger point release, modified stretching), physical modalities (cryotherapy, heat therapy, photo-biomodulation/laser, E-stim), therapeutic exercise (including home exercise programs with PhysioTec platform support), and neurofacilitation as well as comprehensive advice on home adaptations to support patient recovery and function. Mobile services allow in-home care or appointments at central locations in Southland, Queenstown, Dunedin, and Oamaru. She takes pride in clear communication and working cooperatively with you and your canine's veterinary care team to maximize their health and wellbeing!



## Lisa Sturm BSc, MSc

Lisa arrived in New Zealand in 2014 from Germany. After graduating from University with a B.Sc in Information management and a M.Sc in International Management, Lisa went on to focus on her true passion: "Dogs"

Lisa is a dog trainer and behaviour consultant and has worked with thousands of dogs. She is a Supporting member of the International Association of Animal Behavioural Consultants (IAABC) and previous Treasurer & two-time Vice President and current full Member of the Association of Professional Dog Trainers New Zealand (APDTNZ).

After working as the IT Manager, Day Care

Supervisor and Dog Trainer at a big dog center in Christchurch, Lisa founded the science-based dog training business Sit Happens in 2016.

In 2020, Lisa founded Kiwi Canine which is an online store for high quality, selected dog products of which many are made in Christchurch, New Zealand. She finds joy in showing her clients how smart their dogs are and enthusiastic to help them find the right products for their individual dogs



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Dr. Lisa Feldman Barrett, Lecture: Brain Connectivity Workshop May 27<sup>th</sup>, 2021

<https://youtu.be/WsgiFhsn8q0>



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### Associates:

- Sit Happens Christchurch
- Happy Hound Vet Limited
- Helen the Physio

- AnimalPhysioNZ
- SpeakingDog K9 Services