

SANDY BAY HOLISTIC VETERINARY CENTRE

(Formerly Sandy Bay Animal Hospital)

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Information for Veterinary Practitioners

Faecal Transplants used to Modify the Gut Biome and Gut-Brain Axis in the Treatment of Anxiety Related Disorders in the Canine.

Anxiety related issues are a common cause of concern, both to owners as well as Veterinary Practitioners. Anxious animals are more likely to bite and scratch when handled, can be unpredictable in waiting rooms, can be a liability to owners with the possibility of biting visitors and strangers and can also be very detrimental to the animal's health

Anxiety can result in self trauma, or development of acral lick granulomas, tail chasing and biting, and other stereotypical behaviours like:

- gnawing/scratching household items (furniture, doors) when left alone
- ingestion of foreign matter
- aggression
- avoidance or
- trying to escape from enclosed environs

Anxiety can occur because of fear, separation, age (older dogs can develop new fears and confusion due to cognitive dysfunction syndrome (CDS)), medical symptoms and exposure to loud noises, fireworks, thunderstorms riding in the car, or confined spaces.

Excessive anxiety, especially toward a specific and inexplicable trigger, is a phobia. Dogs can develop phobias in response to unlikely triggers like people with glasses, children, or even random objects, which are often because of a lack of social and environmental exposure until 14 weeks of age.

Inter-dog aggression and resultant injuries to pets and owners can be traumatic to all concerned.

If we can find a way to decrease the trauma to pets and owners everybody is in a win-win situation. As vets we will have more tractable pets to engage with,

Owners will not stress when visiting our clinics and taking the family pet for a walk will become an enjoyable experience instead of an activity that causes stress and anxiety.

Dogs are more trainable when stress levels are reduced, in fact they bring more pleasure to our lives.

So where does a faecal transplant fit in?

The colon and associated bacteria respond to hormones produced by the body as well as producing pre-hormones which when crossing the blood-brain barrier, influence brain serotonin levels and other hormones. There is also interaction with stress hormones produced by the adrenal glands, these are activated in the fight/ flight situation, traumatic events and PTSD, causing blood to bypass the GIT so that the normal nourishment of this organ and its function decreases, food is not digested efficiently, stools are passed more quickly and therefore, the whole body can suffer malnutrition. Gut bacteria are skewed to the anaerobic pathological types and the body goes into 'dis-ease' mode.

The first faecal transplants at Sandy Bay Holistic Vet Centre were performed for patients with *Clostridia perfringens* and for the treatment of haemorrhagic gastro-enteritis. An interesting aside was noted by owners that the pet's whole demeanour improved after the transplant, and this was consistent over a number of pets treated. Follow up with clients indicated that dog-dog interaction was improved in those patients who previously had issues as well as the pets becoming more 'friendly' (subjective).

This then became the basis for this trial to see if we can improve the behaviour of a larger cohort of pets and provide the basis of a scientific paper, with the idea of presenting at veterinary meetings/conferences as well.

We require a cohort of a minimum of 150 animals, to ensure robustness and validity of the statistical analysis & see what breadth of anxiety cases is covered by the therapy.

Faecal Transplant Trial inclusion criteria:

- animals with a behaviour disorder/s that may otherwise require medication, and/or is making the daily life of the pet and/or client stressful.
- animals that can be handled without having to be anaesthetised (sedation and muzzling can be used)
- animals with co-morbidities such as skin/ear disease are allowed.

Faecal Transplant Trial Exclusions:

- pets with severe underlying pathology/ies that could be life threatening if sedation or handling was involved and
- pets on antibiotic or corticosteroid therapy as this may affect the implanted bacteria.

Faecal Transplant Trial participants will be given a general information handout and questionnaire to complete. The questionnaire includes some details of the animal, pets will be classified by breed as well as level and types of anxiety. The questionnaire will need to be filled in prior to treatment, 3 weeks and 3 months after the transplant.

We will request the veterinary history for perusal prior to the initial consultation. The pertinent information refers to any underlying pathology, blood tests or anything that may exclude the pet from taking part in the trial. Feel free to annotate information and abbreviate.

There is a cost for the client of \$350-\$450 which includes an initial consultation and physical exam (where possible), sedation (if required), ozone therapy of 3x 0.5-3 minutes (to clean the bowel of faecal matter) and the faecal transplant. The entire process takes 30-50 minutes.

On completion of the Faecal Transplant Trial, the statistical analysis will be made available to clients and their referring vets.

We will keep you regularly updated and the final report will be accessible from our website, www.sandybayholisticvet.com.au/faecal-transplant-trial/

Thank you for your assistance in this Faecal Transplant Trial.