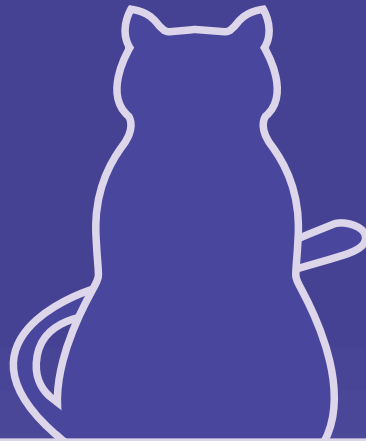


PHEROMONE SOLUTIONS FOR CAT BEHAVIOUR PROBLEMS



FELIWAY®

The secret to happy cats



Like humans, individual cats respond quite differently to **potential stresses** such as visits to the veterinarian, travel, hospitalisation, introduction of a new cat/pet, vacation, boarding or moving to a new residence. What we might consider a "minor change" could be very upsetting to some cats. Stress in cats manifests itself in many ways such as urine marking, vertical scratching, loss of appetite, reduced desire to play or a reduced desire to interact. Urine marking or spraying is one of the most common behavioural problems reported by cat owners.

Pheromonotherapy is an innovative and natural solution to manage stress related problems in cats and dogs. Recent research has demonstrated a strong relationship between facial pheromones and a reduction in stress related problems. Cats rub their faces on objects to mark these objects with their facial pheromones. This process is called "bunting" and is a method of identifying surroundings so that they are familiar to the cat. The facial marks act to calm and settle the cat in these surroundings. Observations by animal behaviourists have shown that cats do not urine mark or scratch objects previously marked with facial pheromones. This work led to the development of FELIWAY®.

STRESS IN CATS

Cats are territorial animals. They mark out their territory using a variety of visual and scent signals. Changes in the environment (such as visits to the vets, return from hospitalisation, moving house, new arrivals, rearrangement of furniture) can be disturbing for the cat because of the absence or loss of these familiarisation marks. The most likely reaction to this anxiety is a change in the frequency or type of marking. Unfortunately for the owner, this often results in the onset of urine spraying and or scratch marking around the house. These signs are worse in multiple cat households where tension can occur between animals and lead to inter-cat aggression.

It should be noted that urine marking and scratching are NORMAL behaviours of the cat, but they can also occur or increase when a cat is stressed or feels threatened. Signs of stress in cats are different but easy to identify:

URINE MARKING

Urine marking is one method used by the cat to mark out its territory. Whether male or female, neutered or not, this behaviour is exhibited by almost every cat. But whilst spraying urine outdoors may be acceptable, most owners find the behaviour difficult to tolerate in the home due to the strong odour and potential hygiene risks. Cats adopt a characteristic standing posture (Figure 1) and spray a horizontal jet of urine high up against a vertical object (urine spraying) or, may sometimes adopt a squatting posture to mark ground objects (urine marking). The amount of urine sprayed is usually a small volume and has a characteristic smell.



Figure 1.
Urine Marking

The cat generally follows a characteristic behavioural marking sequence:

- It chooses a vertical surface (wall, item of furniture etc.)
- It sniffs the surface, displays the "Gape" reaction and kneads the ground
- It turns its back to the surface and whilst standing

- Lifts its tail vertically and sprays a horizontal jet of urine

The urine spots are visible 10 to 20 cm above the ground and possibly with spots on the ground. When this behaviour occurs indoors, the spots are mainly located on the corners of large protruding objects in the house, in the corners of rooms and around doors and windows.

It is important to be able to differentiate urine marking from cases of inappropriate urination.

SCRATCH MARKING

Scratching is an innate feline behaviour and it serves a number of functions for cats:

- Scratching horizontal surfaces when waking up, during play or sexual excitation
- Scratching on vertical surfaces to keep claws in trim
- Scratching on vertical surfaces to send a signal. Only this can be qualified as a marking behaviour.

How to differentiate between different types of scratching

If the cat is targeting only one or two specific sites in the home, usually discreet areas, it is likely to be keeping its claws in shape for hunting. If the scratching becomes more widespread, particularly in visible areas, or is centred on

prominent objects such as a lounge, then this may be an indication that the cat is unsettled and anxious. As a result, the cat starts scratch marking to increase the number of visual and scent signals in the immediate environment.

Feliway® is only active against vertical scratch marking.

OTHER SIGNS OF STRESS

Cats that are introduced to an unknown environment, such as boarding in a cattery or a new home, can become stressed due to a lack of familiarisation marks and show signs of stress such as:

- Loss of appetite
- Reduced desire to play
- Reduced desire to interact

When Feliway® is introduced into the environment, cats have been shown to carry out normal exploratory and feeding behaviour more quickly.



WHAT ARE PHEROMONES

Pheromones are extremely widespread in the animal kingdom, and are used to communicate between members of the same species. Thus the pheromones given off by one individual can affect and change the behaviour of other individuals of the same species, including the behaviour of the animal that originally released the pheromone (e.g. warning pheromones). Pheromones have various functions including sexual, identification, territorial marking and warning. Pheromones are contained in various glandular structures of the body including anal sacs, face, footpads and sweat glands. Three main types of marks containing pheromones are recognised in the cat: territorial, alarm and familiarisation.

3 MAJOR FUNCTIONS OF FACIAL PHEROMONES HAVE BEEN IDENTIFIED



1. Spatial orientation function

Facial marks are primarily placed on prominent objects within the cat's territory. These marks appear to be involved in facilitating the cat's geographical orientation.

2. Relational function

Cats which share large parts of their territory with other cats, rub against each other. This mutual marking appears to contribute towards creating a specific odour for the group, so individuals of the group are recognised. An outsider is recognised by its unfamiliar smell.

3. Calming function

When a cat is placed in an unknown, enclosed area with a large number of varied objects, it will often crouch in a corner or it will carry out urine marking in that area. However, studies have shown that if facial pheromones were previously applied to large objects and exits in the area, the cat does not urine spray, but quickly starts to explore the room, feed and accept petting. Also, if 70% of the facial marks applied to the area were removed, then the cat will exhibit anxious behaviour and start urine marking.

The antagonistic relationship between stress-related problems (like urine and scratch markings) and facial pheromones have been demonstrated in various trials (data on file).

FELIWAY®

Feliway® is a synthetic analogue of naturally occurring feline facial pheromones of cats. These pheromones convey a message of well being and a feeling of security as the Feliway® diffuser mimics the cat's facial pheromones, creating a state of well-being, calm and absence of stress.

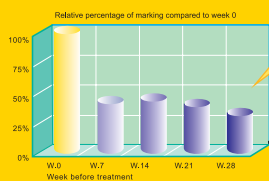
Recommended Directions for Use

Indications	Diffuser	Spray
Urine Marking	Recommended (use in combination with the spray on marked areas for 15 days - will improve results)	Okay (direct application on marked areas following cleaning) Use in combination with the diffuser gives additional benefit from reducing stress level in the house.
Vertical Scratching	Okay (general calming effect)	Recommended (direct application on marked areas)
Hospitalised Cats	Okay (more convenient for multiple caged cats but be aware of the ventilation system in the ward)	Okay (for small number of cats as it allows direct application to individual cages – but must be reapplied daily to empty cages)
Multi-cat Household	Recommended	Okay
First aid use to manage stress related problems	Recommended	Okay
Changes in the cat's environment: - New home (moving house, holiday home) - New arrivals (other pet, baby) - Adoption - Re-arrangement of furniture	Recommended	Okay
Transportation	N/A	Recommended

These recommendations are a guideline only. Monthly visits to the veterinarian are required to monitor the cat's progress with treatment and ensure client compliance. Duration of use may be adapted according to individual needs.

PROVEN EFFICACY OF FELIWAY®

Multi-cat Household

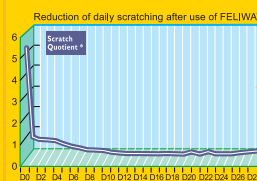


The use of a single Feliway® diffuser results in a 70% reduction in urine spraying within multi-cat households.

Ref: D.S. Mills, C.B. Mills, Veterinary Record, vol.149 no.7, August 18, 2001, p.197

10 cats (3 male and 7 spayed females) from multi-cat households (average 3.4) were treated for urine marking with a FELIWAY® diffuser for one month. 8 cats out of 10 were observed to be marking in several rooms. A single diffuser was used per home regardless of the floor area.

Vertical Scratching

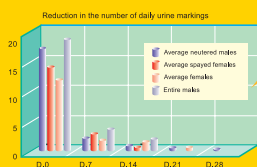


Feliway® significantly inhibits scratching behaviour. The trial shows that it is 96% effective after 28 days of use.

Ref: Data on file

53 cats were treated. FELIWAY® was sprayed once a day over a 4 week period on each scratching site. Monitoring was continued for a further 7 weeks after FELIWAY® applications ended.

Urine Marking

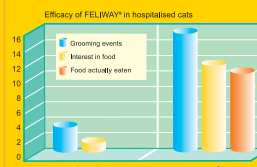


Feliway® significantly reduces urine marking. Efficacy was demonstrated in 96.7% of cases - male or female, neutered/spayed or not.

Ref: P. Pageat, Proceedings of the 21st WSAVA Congress, October 20-23, 1996

61 cats (29 neutered males out of 30 and 22 spayed females out of 31) aged from 1 to 6.5 years, of 7 different breeds were treated for urine marking over 28 days, using one spray of FELIWAY® per day on the sites actually marked, as well as on salient objects and places in the house. Monitoring was carried out until day 49 to check for possible relapses.

Hospitalisation



Feliway® has an 'anxiolytic' effect on hospitalised cats resulting in an increased food intake and grooming behaviour.

Ref: C.A. Griffith et al. JAVMA, vol. 217 no. 8, October 2000, p.1154

20 hospitalised cats were placed in cages that were pre-treated with either FELIWAY® spray or a placebo. Stress related behavioural characteristics were recorded, in particular:

- The number of grooming events
- The number of times interest was shown in food
- The number of times food was actually eaten

Management of Environmental Stress Tom, 18 months, neutered male Domestic Short hair.

Reason for consultation

Tom gets stressed when his owner does not pay him attention or when there are changes in his routine. This results in him exhibiting unacceptable behaviour including biting and scratching his owner 3-4 times a day. He was also occasionally urinating on the carpet.

Relevant history

Although Tom had always played inappropriately as a kitten this was not a major problem initially. As he got older and bigger the biting and scratching increased and seemed to be related to his increased freedom to explore his environment. He had become significantly worse after visitors stayed recently and this appeared to be related to his increased stress levels as his routine changed.

Treatment program

A Feliway® diffuser was plugged in and a behaviour modification program involving appropriate play was recommended.

Changes reported/observed

The owner reported that the effect was almost instantaneous. He was calmer and less anxious and a pleasure to live with after the diffuser was plugged in.



Photo courtesy of Kersti Seksel

FACIAL PHEROMONE FOR CATS

When a cat feels safe in its environment, it rubs its head against the furniture, the corners of walls or the bottom of the curtains, leaving substances called facial pheromones. These pheromones convey a message of well-being, calm and absence of stress.

When there are changes in the cats' environment or if a cat is scared, a state of disquiet or stress may develop. This state can be conveyed by changes in behaviour. In these situations, FELIWAY® can be used to restore the natural balance as it mimics the cat's facial pheromones, creating a state of well-being and calm.

EASY TO USE

For urine marking or scratching:

Use the FELIWAY® diffuser in the room where marking has taken place. If the cat marks several rooms (with a total area of more than 70sq. m.), place another diffuser in one of the other rooms that have been urine marked.

For loss of appetite or reduced desire to play & interact:

Place the FELIWAY® diffuser in the room most used by the cat during the day.

1 diffuser lasts approximately 4 weeks.

Active Area: 50 to 70sq. m.

PRESENTATIONS

Pack with diffuser and 48mL refill.

Pack with 48mL refill.



FELIWAY® is available as a spray for direct application



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