Firework and noise phobias: keeping pets calm

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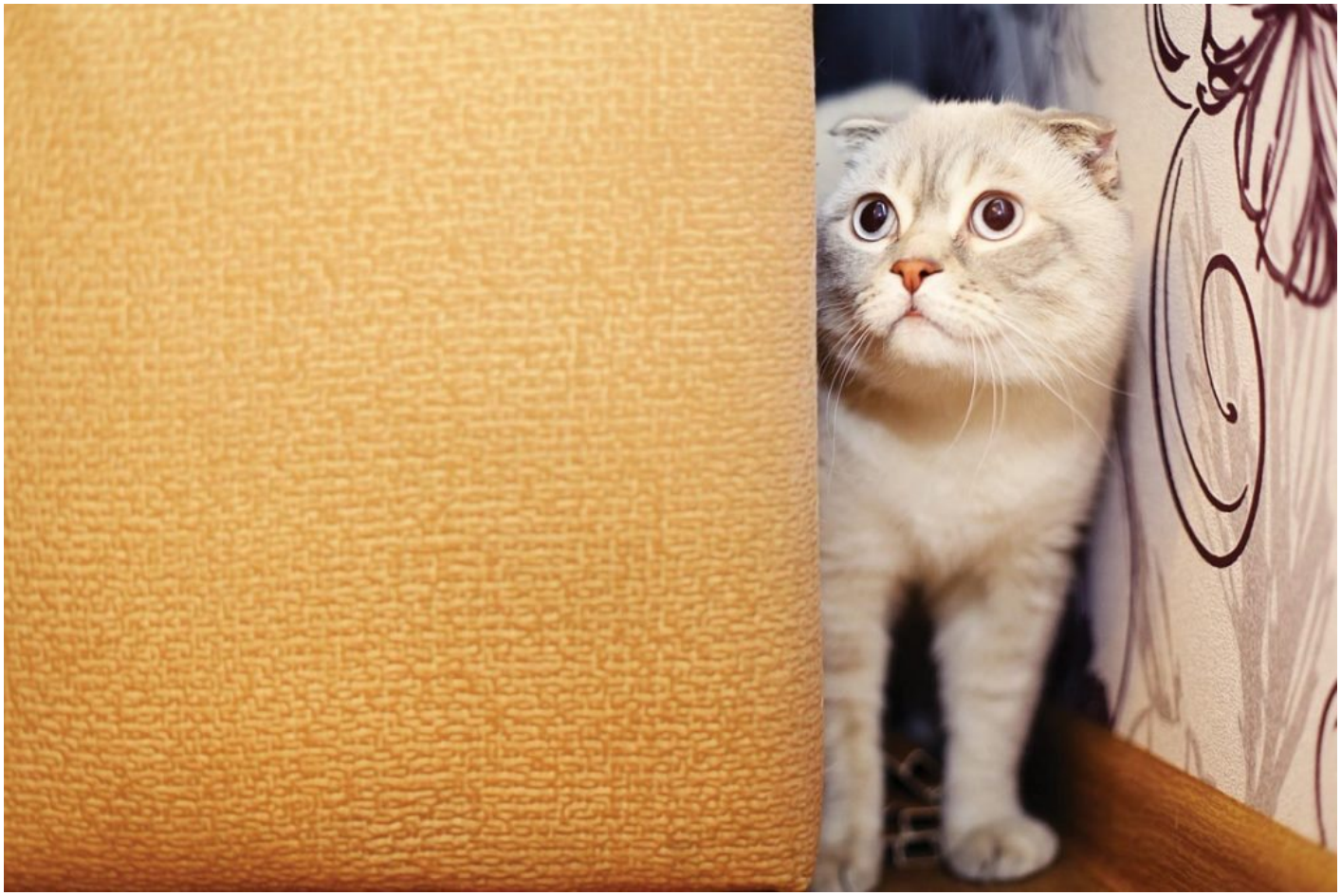

Figure 1. Cats will usually try to escape or hide in response to loud noises. IMAGE: Fotolia/kichigin19.

Many animals show a fear response to loud noises such as fireworks. This may be a normal response to abnormally loud sounds or a developing phobia.

These fear responses may be temporary and decrease as the animal gets used to the noise. However, a significant proportion of individuals will become “sensitised”, where the response will increase with repeated exposure.

Abstract

Up to 49 per cent of dogs may be affected by a fear of loud noises (Blackwell et al, 2005). While thunderstorms or fireworks are the most common triggers to a fear response, other loud noises, such as gunshots and car backfires, can affect some animals.

Fear is a normal and adaptive response essential for survival. In the short term, this stress response is healthy; however, when a response is prolonged – for example, throughout fireworks season – emotional and physical conditions can occur. The development of severe fears and phobias in dogs is thought to occur through a combination of genetic factors, early experiences and the reinforcement of these, and exposure to fearful stimuli as an adult.

Reviewed by Ellie Smith RVN, A1

The response of an animal to noises will vary between individuals. Generally, however, cats will usually try to escape or hide (**Figure 1**), whereas dogs show a range of responses.

Responses can be severe and animals can be in distress throughout periods of exposure to noises, as well as for a prolonged period afterwards.

Fear or phobia?

Fear is apprehension of a stimulus, object or event; is a normal, adaptive response essential for survival and, in the short term, healthy.

Most fear is learned and can be unlearned with gradual exposure, counter-conditioning and other adjunct strategies.

In contrast, phobias are learned fear reactions that are persistent over a period of time and are consistent and irrational, rather than adaptive.

Signs of fearful reactions include:

- trembling and shaking
- clinging to owners
- barking excessively
- cowering
- avoidance/hiding
- trying to escape
- soiling
- salivation
- pacing and panting
- refusing to eat
- destruction
- spraying
- overgrooming

Short-term management strategies

Bonfire Night, New Year's Eve and other multicultural festivals come around quickly and most owners don't tend to think about their pets' fears and phobias until these noisy events are upon them.

Ideally, advice about fear of noises should begin as early as September to ensure each client and pet are provided with adequate coping strategies.

Advice to owners/steps should include:

- Walking dogs before it gets dark to help limit noise exposure (**Figure 2**).
- Ensuring outdoor cats are kept inside, if possible (not forgetting outdoor pets, such as rabbits, guinea pigs and ferrets).
- Providing pets with a den or safe place – most will already have a favourite room. Crates, meanwhile, may help those animals already crate-trained that voluntarily go there as a place to relax (**Figure 3**). However, owners should not use a crate with dogs that have never been crated or dislike it, as feeling enclosed and trapped will make the phobia and panic worse.
- Closing the curtains and putting the television or radio on to provide a distraction (**Figure 4**).
- Trying to keep life as normal as possible to help reduce anxiety.
- Playing with a favourite toy and encouraging games to help distract pets (**Figure 5**).
- Encouraging the non-overfussing of pets as this reinforces anxiety (some forms of comfort can be very helpful to some pets; however, owners should ignore noises and try to appear relaxed).
- Using pheromones and anxiolytic nutraceuticals to manufacturers' recommended dosage.
- Providing anxiolytic products on a short-term basis under the direction of a veterinary

surgeon.
- Providing anxiety shirts – these work by applying gentle pressure to make the pet feel safe and secure, which has a calming effect and reduces anxiety.
- Not punishing any inappropriate behaviour.

These short-term management strategies can work well for mild noise phobias, but pets suffering from a moderate to severe phobia will need additional treatment.

Therefore, a consultation with a veterinary surgeon will be necessary to assess whether the pet requires further medication.

Short-term use of certain medications can help enable a patient to cope with a predictable event (Bowen and Heath, 2005).

Figure 2. Walking dogs before it gets dark can help avoid noise exposure. IMAGE: Fotolia/vvvita.

Figure 3. Crates may help those animals already crate-trained to relax. IMAGE: Fotolia/jagodka.

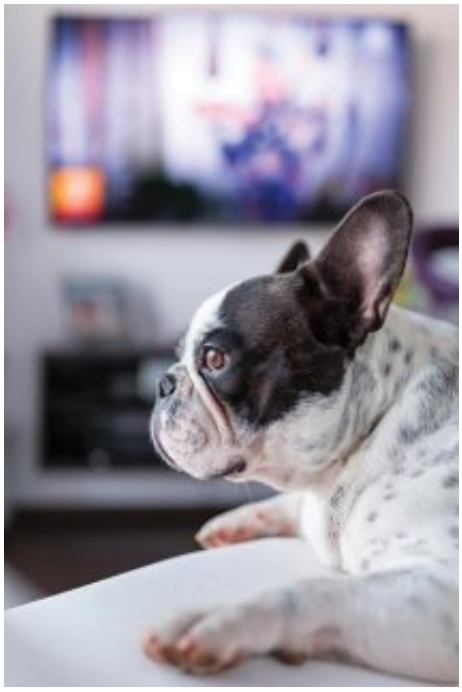

Figure 4. A television or radio can provide a welcome distraction from noise. IMAGE: Fotolia/Patryk Kosmider.

Figure 5. Encouraging play can also help.

Use of medication

The primary reason to use medication during exposure to loud noises – apart from reducing the negative welfare impact on pets – is to prevent further sensitisation.

On each occasion, an animal is exposed to a fear-provoking stimulus, its fear response becomes more established and more likely to occur on subsequent occasions.

Benzodiazepines, for example, have an additional amnesic effect through the blocking of memory consolidation, reducing the risk of further sensitisation on exposure.

This is particularly important where dogs are undergoing treatment for acute fear responses.

Elsewhere, various anxiolytic nutraceuticals are available that can provide a calming influence on pets, both short-term and long-term.

One such product contains the kava plant (*Piper methysticum*) as an active ingredient, which works as an anxiolytic sedative muscle relaxant with an anticonvulsant effect.

The product also contains an amino acid called L-tryptophan, a serotonin precursor that helps to support a relaxed mood and B vitamins, which can also have a calming effect.

It is available in capsules for dogs and as a liquid for cats.

Another product's active ingredient, meanwhile, is alpha-S1 tryptic casein, which is derived from a milk protein and has a similar postprandial calming effect to that observed in a puppy after receiving a feed from its mother.

Other solutions

Nutrition support can also be offered in the form of so-called "calm" diets, designed to help alleviate stress.

These contain alpha-casozepine, released when milk is digested in the small intestine by an enzyme called trypsin.

The food also contains serotonin precursor L-tryptophan and prebiotics are also included to help encourage friendly bacteria in the gut to reduce stress diarrhoea.

The food should be used from 10 days before the expected stressful situation and, according to claims, works for two to three months after being consumed.

Another therapeutic approach to noise phobias can be pheromonotherapy, with the use of products such as the dog appeasing pheromone and the feline facial pheromone.

Pheromones are a natural chemical produced by animals, some of which act as a source of reassurance and familiarisation, and synthetic copies of these particular pheromones have been proven to reduce fear and anxiety (Sheppard and Mills, 2003).

One such product for dogs, for example, is a synthetic copy of pheromones naturally released from a lactating bitch to calm and comfort puppies.

It is available in various preparations, including sprays, collars, diffusers and, more recently, tablets.

The preparation is odourless and will release the pheromone around the house.

It is advised to start this process around two weeks before any expected noise event.

A study by Levine et al (2007) has also shown desensitisation using a sound CD, in combination with a dog appeasing pheromone, helps dogs handle their fear of fireworks.

For cats, meanwhile, a feline facial pheromone analogue, also known as the “familiarisation pheromone” exists.

This is used by cats – through rubbing their face on surfaces – to mark places, objects and persons as familiar.

A synthetic product is available as a spray and a diffuser.

Natural remedies can also be used, which work alongside the brain’s neurotransmitters and work by telling the nerve receiving the message either to calm (via the gamma-aminobutyric acid pathway) or get “fired up”.

Its active ingredients are valerian, vetiver, sweet basil and sage, and it is available in diffusers, atomisers and sprays.

Long-term treatment

Phobias can be treated successfully using behavioural modification techniques such as desensitisation and counter-conditioning.

The gradual process of both aims to change the emotional response of the animal to the stimulus.

When a phobia is seasonal, it is important to start behavioural therapy when the symptoms are less likely to arise.

In moderate to severe cases, referral to a qualified pet behaviourist is essential; however, providing some treatments to suffering pets will be necessary in the short term.

The amnesic effect of benzodiazepines is, therefore, an extremely important element in enabling resolution in such cases.

It should be noted the use of acepromazine (ACP) has been associated with increased sensitisation to noise and a blocking of the motor ability of the individual; therefore, a dog administered with ACP is aware of the loud noises, but unable to move away from them (Bowen and Heath, 2005).

ACP can, therefore, worsen a dog's response to the fearful stimulus.

To clarify:

- Desensitisation is the gradual exposure to a stimulus or sound at a level below where the patient reacts; the sound volume is slowly increased over days or weeks as the dog continues to not react.
- Counter conditioning is rewarding the dog for not reacting by offering a stimulus, such as a food treat, that competitively interferes with dog's ability to react.

Nurse clinics and promotions

Figure 6. Habituation to noises can be achieved using a high-quality recording, starting at very low levels. IMAGE: Fotolia/Pavel Timofeev.

Prevention is always better than cure and VNs can play a vital role by running clinics.

Blackwell et al (2005) found puppies born in autumn and winter had a lower incidence of fear from fireworks than spring and summer-born puppies.

This finding is supportive of the view exposing puppies to noise from a young age in a safe and controlled environment is beneficial.

It is, therefore, imperative to provide new puppy owners with information on the high occurrence of fears and phobias, and the appropriate ways to deal with them.

Puppy parties are a great way to provide this type of information in a fun and informative way.

Alternatively, puppy and kitten clinic, as well as vaccination consultations, are excellent ways of providing one-to-one sessions with a new owner.

Habituation to noises can be achieved using a high-quality recording, starting at very low levels as soon as the puppy's ears open.

This socialisation will help it develop into a well-balanced dog confident in dealing with loud noise (**Figure 6**).

It is important, when trying to habituate any animal to something, the individual does not show any fear response.

If animals do become fearful in these situations, they are likely to develop an adverse reaction to the sounds, as opposed to learn something positive about the noises.

The study by Blackwell et al (2005) also found older dogs were more likely to show fearful behaviour in response to loud noise than younger dogs.

Advice on fear of loud noises should, therefore, be incorporated into senior pet clinics.

Further investigation for older dogs suddenly experiencing firework fears or phobias is warranted.

The problem may be related to an intense stimulus, but it may be associated with cognitive dysfunction or other stress-related or medical conditions.

Seasonal displays are a great idea to raise awareness ahead of the firework season.

The key to their success is to ensure they are put up well in advance of the relevant events and clearly visible.

Drug companies supply very good displays, handouts and information, and providing branded

practice information allows owners the opportunity to think about their pets' phobias or fears before booking an appointment with either a VN or vet to discuss longer-term treatments.

Information should be freely available throughout the year, too, as outside the usual fireworks season, more unusual noises, such as thunder or a car backfiring, can have an impact.

Social media allows practices to remind clients on a daily or weekly basis about the upcoming fireworks season.

It can also be used as an education tool to highlight to owners the types of behaviours dogs may display if they have sensitivity towards loud noises, such as fireworks.

Conclusion

Noise-related fears and phobias can be traumatic for both pet and owner.

Veterinary nurses are ideally placed to give advice and support on how best to cope with what can be a traumatic event for everyone involved.

They can help by ensuring clients with either a new puppy or a senior pet are aware of fears and phobias, the signs and the various treatments options.

Prevention is always better than cure and basic preventive behavioural advice can help owners understand their puppies and kittens learn about lots of different stimuli during their socialisation period.

This information can ensure they are exposed to objects and sounds likely to be encountered in adulthood in a positive way.

References

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- Sheppard G and Mills DS (2003). Evaluation of dog-appeasing pheromone as a potential treatment for dogs fearful of fireworks, *Veterinary Record* **152**(4): 432-436.

Further Reading

- Adaptil
- Association of Pet Behaviour Counsellors
- Sound Therapy 4 Pets