

FELINE COMPULSIVE BEHAVIOR
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Feline compulsive behaviors are based on natural behaviors that may be frustrated by management practices and/or restrictive environments. Compulsive behavior initially may be performed as a displacement behavior. For example, when a cat is torn between responding with aggression or running away, it may displace into a seemingly unrelated behavior, such as grooming, as a way to reduce emotional tension. If exposure to an anxiety-provoking stimulus continues, the cat may express the behavior repetitively and out of context. At this stage, even when the behavior appears to have adverse consequences for the cat (i.e. pain), the animal may continue to engage in the behavior. The level of stimulation required to trigger the behavior may decrease over time so that the behavior occurs in response to any level of arousal.

Because certain cat breeds are seen more often in the compulsive behavior case loads, genetic influences may be involved in determining specific compulsions and which individuals will display such behaviors. The most common compulsive behaviors exhibited by cats include wool sucking or fabric eating, over-grooming/hair-barbering or hair-pulling behavior (psychogenic alopecia), and feline hyperesthesia. Oral behaviors such as wool sucking and psychogenic alopecia are the most prevalent feline compulsive disorders.

Wool-Sucking:

This behavior is expressed as repetitive and inappropriate sucking and chewing on fabric - usually woolen, synthetics, or cotton substrates such as sweaters, blankets, or carpets. Some cats suck on or ingest plastic substrates. The condition resembles displaced nursing behavior and may be a feline equivalent of thumb sucking. Wool sucking may start as a nursing behavior directed toward the queen or another cat's coat. Such misdirected nursing may subsequently generalize to other fuzzy substrates.

As the cat matures, sucking may progress to pica (consumption of inedible material) and the range of materials ingested may broaden to include a wide variety of fabrics and other inappropriate items such as shower curtains, rubber bands, shoe laces, and plastic bags. Damage can be quite extensive and costly and can impose health risks, including intestinal blockage. Consequently, wool-sucking can be dangerous to the cat as well as a nuisance to the owner.

The onset of wool sucking is usually observed any time after weaning, especially during the first year of life and frequently before six months of age. Several predisposing factors have been suggested for this behavior, including persistence of kitten oral behavior following early weaning, heredity, inadequate environmental or social stimulation (feline separation anxiety), or a malfunction of neural control of appetitive behavior. Medical conditions that can trigger abnormal ingestion of inappropriate material include hunger, nutritional deficiencies such as anemia or inadequate dietary fiber, diabetes, or tumors.

Wool-sucking is predominantly seen in oriental breeds, although other purebreds and cats of mixed origin as well as domestic long and short hairs can exhibit this condition. Siamese cats appear to be particularly susceptible and account for approximately 50 percent of the affected population. Given the breed predilection, compulsive wool sucking is thought to have genetic underpinnings possibly related to the comparatively anxious and active temperaments of affected breeds.

Psychogenic Alopecia:

Cats normally groom as a displacement behavior when momentarily stressed, but in some cases the frequency and duration of grooming lasts longer than would be considered

functional. In susceptible animals exposed to chronic stress, grooming may become maladaptive and be performed out of the normal context. Such grooming is repetitive, excessive, and inappropriate in frequency and intensity of occurrence. Excessive self-licking and chewing can result in areas where sheared hair shafts have become stubble. Some cats may engage in the behavior more aggressively and actually bite and pull out patches of their hair. Hair pulling and chewing may cause skin wounds and ulceration.

Hair loss is typically noted on areas only accessible to the cat (abdomen, flank, back, chest, and legs). A stressful change in the environment often coincides with the onset and concurrent anxiety-associated behaviors such as hiding, anorexia, avoidance, and nervousness.

Medical rule-outs include allergies or hypersensitivity to parasites, food, dust, pollen, or mold. If a trial dose of steroids controls excess grooming, the condition is probably medical and not psychogenic in origin. Other medical conditions causing discomfort but not associated with skin conditions can cause excessive grooming (cystitis, inflammation of anal sacs, hyperthyroidism). Even if a medical condition triggers the onset and is subsequently resolved, a susceptible cat may continue to groom excessively.

In general, females appear to be more commonly affected than males. The onset of psychogenic alopecia may occur at any age, but tends to occur around puberty. Psychogenic alopecia is thought to have a genetic basis because it appears to be a displaced grooming behavior that is hard-wired. The condition is seen predominantly, but not exclusively, in purebred cats of oriental breeding and is usually associated with cats with anxious temperaments.

Feline Hyperesthesia:

This is a complicated behavioral condition with some features that appear compulsive and others that appear frankly neurological. It is characterized by compulsive, self-directed grooming/aggression and affected cats episodically become abnormally sensitive to perceptual input. In some cases, the condition may progress to generalized seizures. Because of the overlap between symptoms, it is thought to possibly be a form of partial seizures with compulsive components.

Symptoms characteristic of feline hyperesthesia include dilation of pupils, excessive skin rippling, and frenetic self-directed grooming which may result in hair loss. Grooming may be so intense it may manifest as self-directed aggression often focused on the tail, flank, or pelvis. Aggression may sometimes be explosive and directed at people. Affected cats may emit excessive and unusual vocalizations and appear to hallucinate ("act afraid of their tail") and run away. They may appear "manic" (excited look, frantic running, jumping) and are frequently extremely sensitive to touch. Sometimes aggressive bouts are preceded by attention seeking and enhanced affection to people. Affected cats are often anxious and restless, constantly wandering and pacing. There is an apparent sensitivity to touch (episodes may be induced by stroking along the spine), which can trigger attacks and account for the name of this syndrome.

Feline hyperesthesia is usually associated with heightened affect and aggression. Attacks appear to be more frequent in the evening or early morning. Aggression appears spontaneously and for no obvious reason and the bouts can end as quickly as they appear.

Following an episode, the cat often looks confused. The behavioral manifestation varies between cats and milder forms of feline hyperesthesia may be confused with psychogenic alopecia because of the common symptoms of excessive grooming that may result in hair loss. The onset usually occurs in young to middle age cats between one to five years of age. The signs may last a few seconds to a few minutes and may vary in incidence from month to month. Episodes may occur every few days or almost constantly all day. Medical rule outs include fleabite dermatitis, food allergy, intervertebral disc disease, vertebral trauma, infection, toxins, or neoplasia. The condition may have a genetic basis since it occurs predominantly, but not exclusively, in purebred cats, especially Siamese or Siamese crosses.

Identify the Conflict:

The first line of attack for treating anxiety-based disorders is to remove or reduce the source of conflict or anxiety. If this is not possible, then counter-conditioning and desensitization techniques are the treatments of choice.

Counter-conditioning teaches the cat to perform a behavior that is incompatible with fearful behavior. Desensitization gradually introduces the cat to the stimulus it fears and coupling this with a positive experience.

Common Eliciting Triggers for Feline Compulsive Behaviors

- Separation anxiety (owner's absence, loss of companion animal)
- New animal or person in household
- New environment
- Restricted access to outdoors
- Inadequate social or environmental stimulation
- Early weaning
- Resolved medical condition
- Stroking or petting cat on back
- Loud or high pitched noises

If the cat sucks on fabric, restrict its access to the fabric by picking up clothing and preventing it from going in rooms where it may suck on bedspreads or curtains. If the cat chews specific items, make these items aversive by coating them with bitter tasting substances. Remember to provide acceptable alternative items for play and chewing, and place them in the area where the cat normally would seek fabric. If the cat suffers from feline hyperesthesia, advise the owners to avoid stroking their cat along its back as this can trigger attacks.

Environmental Enrichment:

Owners can incorporate the following changes to enrich their cats' environments:

Climbing frames - Many cats enjoy climbing frames that make their environments more three-dimensional and allow them to express their natural tendency to climb trees.

Bird feeders, fish tanks - Placing a bird feeder near a window where the cat can observe the birds may help keep it entertained. Some cats will even watch bird videos. Fish tanks are also entertaining for cats, but be sure to place a cover securely on top of the tank to protect the fish.

Prey facsimiles - Toys attached to strings, feather wands, and fishing pole toys stimulate predatory behavior. Daily rotation of toys is recommended to keep the cat mentally stimulated.

Non-toxic grasses - Some cats respond well to fresh catnip or cat grass grown especially for them. Along the same theme, some cats also enjoy lettuce or green beans. Other cats can be redirected onto pieces of thin rawhide coated lightly with fish oil or cheese spread. Owners should offer the rawhide chews only when they will be directly supervising their cat.

Novel feeding opportunities - Have several different feeding stations so the cat will have to search for its food. Some cats respond very well to "food puzzles" that they must bat around in order to obtain food. Food puzzles can be purchased in pet supply stores or crafted at home by taking an empty toilet paper roll and punching a number of holes in the tube. Make the holes large enough to release the kibble. Fill the tube with kibble and securely tape the ends to contain the food. The owner may need to show the cat how to roll the tube in order to obtain food. Make several food puzzles, fill with the cat's daily meal, and distribute them around the house. With this technique, the cat will have to hunt for its food. The goal is to keep the cat occupied and mentally stimulated for much of its active time.

Exercise:

Daily aerobic exercise helps decrease arousal. We recommend that the owner spend 10-15 minutes twice a day engaged in aerobic, interactive play with their cat. One way to accomplish this is to attach treats or furry toys to string and play "predator" games with the cat. Some cats prefer feather wands and will perform some amazing acrobatics while they try to catch their "avian prey". Try several different types of toys and rotate them regularly so the cat does not tire of them. Exercising the cat outdoors on a leash and cat harness may be helpful in some cases.

Diet:

Prolonging feeding behavior can be helpful. For example, feeding a high fiber dry food ad-lib may help redirect the cat from sucking on fabric or over-grooming to eating. As previously mentioned, food puzzles are a great way to increase a cat's activity level and prolong feeding.

Structure:

Having a predictable daily routine helps calm many cats. Regularly scheduled times for feeding, playtime, and attention are strongly recommended.

Attention Withdrawal:

Owners should be instructed to consistently ignore the cat's repetitive behavior if there is any indication it is performed to get their attention. If the behavior is ignored, the owners will ensure that they are not reinforcing the performance of the unwanted behavior. If there is an attention-seeking component to the behavior, the frequency of occurrence should decrease if it is not rewarded. The owner should be forewarned, however, that the frequency of the behavior may initially increase as the cat attempts to gain the owner's attention. Owners should be warned to not incorrectly assume that the treatment is ineffective. Continued lack of reward (ignoring the behavior) will diminish the performance of the behavior if there is an attention-seeking component involved.

Avoid Discipline and Restraint:

Generally, treatment of over-grooming conditions by physical restraint (Elizabethan collars) is not recommended. Although it may prevent the cat from injuring itself, it does nothing to address the underlying anxiety issues that maintain the behavior. The cat should

never be punished since punishment may actually contribute to the underlying conflict and increase the cat's anxiety.

Pharmacological Treatment:

Once the behavior becomes engrained, the cat may continue to show compulsive behavior even when the initiating stressors are removed. At this stage, the behavior may become refractory to standard behavior modification techniques and management changes alone. Pharmacological intervention, in addition to management changes and behavior modification, is often required in the treatment of feline compulsive behaviors. This is especially true if the environmental triggers can not be identified and eliminated.

Compulsive behaviors appear to involve changes in brain neurotransmitters that may promote the continued expression of the behaviors. Serotonin involvement is suspected because drugs that inhibit the reuptake of serotonin in the brain are the most helpful for treating compulsive disorders. The actual mechanism for the involvement of serotonin in compulsive behavior is unknown. However, from a practical viewpoint, medications that inhibit the reuptake of serotonin appear to normalize brain chemistry, minimize the impact of environmental stressors, and help stabilize the cat's mood. Either fluoxetine or clomipramine are frequently prescribed. A less anxious cat will be less driven to engage in compulsive behavior. Because of the overlap of compulsive and partial seizure symptoms in feline hyperesthesia, anticonvulsants such as phenobarbital may be helpful.

Although we can not always completely eliminate compulsive behavior, the treatment program outlined above is effective in reducing the incidence of compulsive behavior. To be effective, all phases of the program must be followed simultaneously and consistently. It is often helpful to have the owners keep a daily diary of their pet's behavior. This helps them to be more accurate in assessing the animal's improvement and may also help increase owner compliance.