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## **COMPULSIVE, STEREOTYPIC AND DISPLACEMENT DISORDERS IN DOGS AND CATS**

### ***What is a displacement behavior?***

In some situations, an animal may be motivated to perform two or more behaviors that are in conflict with each other (e.g. approach-withdrawal, greeting but fear of being punished). The inability to perform both of the strongly motivated behaviors can lead to conflict resulting in the performance of a displacement behavior. This is usually a normal behavior shown at an inappropriate time, appearing out of context for the occasion. Grooming, yawning, circling, and vocalizations may be performed in stressful situations as displacement behaviors.

By comparison, when an animal is interrupted or prevented from performing a highly motivated behavior (e.g. territorial aggression, fear aggression), it may be directed toward another person or animal. This is known as redirected behavior.

### ***What is a stereotypy?***

Stereotypies are repetitive behavior patterns without obvious goal or function. They are usually derived from normal behaviors. Stereotypic behaviors may be performed as components of displacement behaviors or compulsive disorders (see below). They can also be due to physiological changes such as might occur with a neurological disorder (circling, head bobbing). Examples of stereotypic behavior include pacing and excessive grooming.

### ***What is a compulsive disorder?***

When an animal is repeatedly placed in a state of conflict, displacement behaviors may begin to be manifested during any state of stress or arousal. Eventually, the behavior may become compulsive as the pet loses control over initiating or terminating it. The compulsive behavior may then occur in situations where the pet is minimally aroused. Compulsive behaviors are often derived from normal behavior patterns but appear to be abnormal because they are excessive, exceedingly intense, or performed out of context. Although some compulsive disorders are repetitive and may therefore be referred to as stereotypic (wool sucking, pacing, tail chasing), other compulsive disorders such as freezing or staring are not truly repetitive.

Since certain behaviors are more common in certain breeds, there may be a genetic predisposition to compulsive behaviors. For example, flank sucking (see below) is most commonly seen in Doberman pinschers, spinning (see below) in bull terriers, and fly chasing in miniature schnauzers. In cats, wool sucking is observed more commonly in oriental breeds.

Many compulsive or stereotypic behaviors arise spontaneously as a response to conflict or anxiety, but behaviors may become compulsive or stereotypic because they have been conditioned. For example, the owner who gives the young pet attention when it playfully chases its tail may reinforce the performance

of the behavior. Owners that offer food or a toy in an effort to disrupt the behavior are also rewarding the very problem they wish to stop.

In each case it is essential to diagnose, rule out or treat any medical condition that might contribute to the problem. Some compulsive disorders have a component of self mutilation (e.g. acral lick dermatitis - see below, tail biting) that will require medical treatment. If the problem persists after all medical problems are diagnosed, treated, or ruled out, then behavioral modification, environmental manipulation and drug therapy may also be indicated.

In dogs, compulsive behaviors include acral lick dermatitis, flank sucking, pacing, circling, incessant or rhythmic barking, fly snapping or chasing unseen objects, freezing and staring, polydipsia, sucking, licking, or chewing on objects (or owners), tonguing or licking the air and other forms of self mutilation. In cats, excessive sucking and chewing, hunting and pouncing at unseen prey, running and chasing, paw shaking, freezing, excessive vocalization, self-directed aggression such as tail chasing or foot chewing, overgrooming or barbering of hair and possibly feline hyperesthesia (see below) may all be manifestations of conflict, and may become compulsive disorders in time.

### ***How can compulsive disorders be treated?***

Since some stereotypic or compulsive behaviors are initiated by underlying medical problems, a complete medical work-up is always the first step. Behaviors must be evaluated individually since not all require treatment. In fact, treatment may only be necessary if the behavior poses health risks to the animal or seriously annoys the owner. For some pets, the compulsive behavior may be the most practical and acceptable outlet for reducing stress or resolving conflict in their home environment. For example, if flank sucking causes no physical harm, but occupies and calms the dog, then the compulsive behavior may be preferable to the use of calming drugs, or the development of other disorders (acral lick dermatitis, destructiveness, excessive vocalization).

Reducing stress or finding methods of decreasing the sources of arousal and conflict are the first aspect of treatment that should be explored. Inconsistent training may lead to problems in the relationship between pet and owner. The environment should be closely examined to ensure that the pet has sufficient stimulation, particularly when the owners are frequently absent or otherwise occupied. This must include sufficient exercise, play, and social attention, as well as appropriate toys. Obedience training may be helpful and the owner should be cautioned that inappropriate punishment could actually intensify the problem rather than correct it.

Behavioral modification is most appropriate when owners can identify and predict those situations and times when compulsive behaviors are likely to arise. They can then initiate an alternative activity (before the compulsive behavior is overt) that is incompatible with the problem behavior, such as play, training, feeding, or providing a chew toy. Owners that have been rewarding the problem must remove all attention or rewards. When the behavior is exhibited in the owners presence, inattention can be given by turning or walking away, or you could utilize some form of remote indirect punishment device, to ensure that there is no positive consequence for the behavior. These devices (ultrasonics, water gun, siren) or leash and halter may also allow the owner to successfully interrupt the stereotypic behavior so that normal alternative behaviors can be re-established.

Denying the pet access to the focus of its obsession has mixed results. For example, a bandage or an Elizabethan collar may allow acral lick dermatitis or feline psychogenic alopecia to heal, but once the collar is removed, most cases relapse. In many cases, restricting access will worsen the problem by increasing anxiety or arousal. Instead, the underlying cause of the anxiety or conflict should be identified, removed or the animal desensitized to the stimulus.

Drug therapy may be extremely useful for pets with stereotypies just as it is in humans with obsessive-compulsive disorders. Since lowered serotonin and increased dopamine levels may be associated with some compulsive disorders, drugs that bring about a normalization of one or both of these neurotransmitters (e.g. clomipramine, fluoxetine) may be effective in the treatment of these disorders. A short course of therapy with anti-anxiety drugs may also be useful when the pet must be exposed to a potentially stressful or anxiety producing situation (new home, dramatic change in schedule, new baby). Antihistamines may also be useful to decrease anxiety and reduce itchiness in some self mutilation disorders.

### ***What is canine acral lick dermatitis?***

Acral lick dermatitis is when dogs repeatedly lick at specific sites on one or more of their limbs, often causing significant damage. Large breeds such as Doberman pinschers, Great Danes, German shepherds, Labrador retrievers, Golden retrievers and Irish setters are most commonly affected. Underlying medical abnormalities (e.g., arthritis, fracture, skin disorders) may initiate or contribute to the problem. The condition arises when the pet is repeatedly stressed or anxious, and this leads to excessive licking. The area becomes raw and itchy which further stimulates the dog to lick and chew.

With acral lick dermatitis, treatment must be directed at both the behavior disorder and the skin trauma. Therefore even with behavior therapy, treatment of the skin condition is also necessary. Medical therapy might consist of treatment with long term antibiotics, anti-inflammatory agents, and preventing access to the area until the lesion heals. Behavioral management and drug therapy is much the same as for other compulsive disorders (see above).

### ***What is canine flank sucking?***

Flank sucking is when the dog takes a section of flank skin into its mouth and holds the position. Since the Doberman pinscher is most commonly affected, a hereditary component is likely. If the sucking does not cause significant lesions and does not interfere with the apparent health or welfare of the pet, flank sucking may be an acceptable "coping" mechanism. When the behavior does cause physical damage or becomes so compulsive as to contribute to other behavior problems (decreased eating, aggressive toward owners when approached during sucking) then treatment is necessary. Behavior management and drug therapy is the same as for other compulsive disorders (see above).

### ***What is tail chasing or spinning in dogs?***

Compulsive tail chasing may be a displacement or compulsive disorder in some dogs, but could also be a type of epileptic disorder, or due to physical discomfort or medical illness. Some cases such as those seen in bull terriers may exhibit a more intense spinning or whirling behavior. Other concurrent behavior problems such as aggression have been reported in "spinning" bull terriers. In some cases, the problem may have started as play behavior that was conditioned (rewarded) by the owner. Once underlying medical problems are treated and an epileptic disorder has been ruled out, behavior and drug therapy is much the same as for other compulsive disorders (see above).

### ***What is feline psychogenic alopecia?***

Alopecia or hair loss can result when cats over-groom and remove fur. Overgrooming can take the form of excessive licking, or the pulling out of tufts of hair. The diagnosis of psychogenic alopecia as a compulsive disorder is reserved for those cases in which no underlying medical problem is evident. Most cats with alopecia have an underlying skin disorder such as fleas, flea bite hypersensitivity, inhalant allergies, food allergies, parasites, infections or dysfunction of internal organs or the endocrine system. A steroid trial and a 6 - 8 week food trial may often be recommended before considering the diagnosis to be

purely behavioral. Cats normally are fastidious groomers and as much as 30 - 50% of their time awake is spent performing some type of grooming behavior. As with other compulsive disorders, feline psychogenic alopecia may begin as a result of anxiety or frustration, but might in time become compulsive.

Increasing environmental stimulation (play centers, chew toys, food or catnip packed toys, kitty videos, increased interactive play) can all be tried, particularly if the behavior tends to occur in the owner's absence. Toys should be kept out of the cat's reach until put out daily by the owner. Then the toys should be rotated every 1 - 3 days to provide different play items. When home the owner should provide periods of interactive play and perhaps even a short training session to keep the cat occupied and focused. Attention should never be given to the cat when the behavior is exhibited. In fact, inattention or some form of remote punishment device, may be the best way to ensure that no rewards are given. Remote devices such as a water rifle, a can of compressed air, or an ultrasonic or audible alarm may also serve to interrupt or deter the undesirable behavior without causing fear of the owner. As soon as the undesirable behavior ceases, the owner should immediately engage the cat in some alternative acceptable behavior (e.g. play, chew toys). The owner should also try to identify environmental or social changes that may be contributing to anxiety and the behavior.

If behavioral therapy alone is not successful, drug treatment is often initiated, using antihistamines, anti-anxiety drugs, or antidepressants. If all else fails, progestins may be another choice but can be associated with numerous potentially serious side-effects.

### ***What is feline hyperesthesia?***

Feline hyperesthesia is a poorly-understood condition that has also been referred to as rippling skin syndrome, rolling skin syndrome, or twitchy skin syndrome. It may not be a true compulsive disorder. The normal response of many cats to having their back scratched can include rippling of the skin, an arched back and varying degrees of vocalization. In hyperesthesia, the affected cat may have a more exaggerated response to touching, rubbing or scratching of the back. This behavior may then become a compulsive disorder as the frequency increases, the response becomes more intense and the signs begin to appear with little or no apparent stimuli. In addition to rolling skin, muscle spasms and vocalization, the cat may have dilated pupils, and may seem to startle, hallucinate and dash away. Some cats will defecate as they run away. There may also be some grooming or biting at the flank, tail, or back displayed along with the above behaviors.

Behavioral management requires the identification and control of the types of handling that lead to the behavior. Avoiding or minimizing these types of handling, or desensitizing and counter-conditioning techniques so that the cat learns to "tolerate" these stimuli, may be successful at reducing the cat's level of arousal. For some cats who appear to be having a seizure disorder, anti-epileptic therapy may be effective although these drugs may act by reducing the cat's level of arousal. Treatment with anti-anxiety drugs, antidepressants, and progestins may also be occasionally successful.