

## CANINE AGGRESSION

There are several causes of aggressive behavior in dogs. Because the treatment for each is somewhat different, it is important to know the **type** of aggression being expressed by the dog before treatment can be undertaken.

### Basic Types of Canine Aggression:

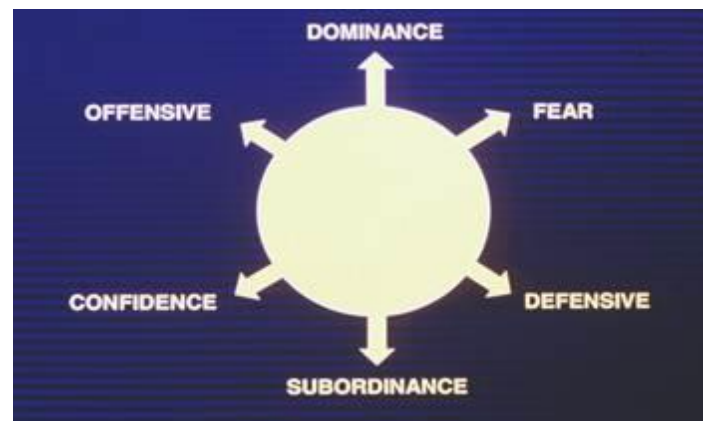
1.	OWNER-DIRECTED AGGRESSION (dominance, status-related, conflict)	<ul style="list-style-type: none"> <li>▪ Often directed to family members or house-mates only (members of the dog's social group)</li> </ul>
2.	SIBLING RIVALRY (including alliance aggression)	<ul style="list-style-type: none"> <li>▪ the most common type of aggression between dogs living together in the same home</li> <li>▪ a type of dominance aggression</li> </ul>
3.	FEAR-INDUCED	<ul style="list-style-type: none"> <li>▪ aggression to strangers on or off territory</li> <li>▪ stems from under-socialization or adverse experience</li> </ul>
4.	TERRITORIAL	<ul style="list-style-type: none"> <li>▪ manifests as guarding of an area or "turf"</li> <li>▪ usually directed toward unfamiliar people or dogs</li> </ul>
5.	PAIN-INDUCED	<ul style="list-style-type: none"> <li>▪ instantaneous reaction to pain</li> </ul>
6.	REDIRECTED	<ul style="list-style-type: none"> <li>▪ aggression directed toward another member of the social group and not to the one inciting the aggression</li> </ul>
7.	SEXUAL	<ul style="list-style-type: none"> <li>▪ aggression associated with mating/courtship</li> </ul>
8.	MATERNAL	<ul style="list-style-type: none"> <li>▪ protection of young</li> </ul>
9.	PREDATORY	<ul style="list-style-type: none"> <li>▪ catching and killing prey</li> <li>▪ highly developed in fighting and terrier breeds</li> <li>▪ differs from other types of aggression because submissive displays do not turn off the aggression (i.e., the complete action sequence includes killing)</li> </ul>
10.	GROUP	<ul style="list-style-type: none"> <li>▪ one group member stimulates and escalates aggressive behavior in other group members</li> <li>▪ a type of social facilitation</li> </ul>
11.	LEARNED	<ul style="list-style-type: none"> <li>▪ attack training</li> <li>▪ learning can increase or decrease any type of behavior as a result of experience</li> </ul>
12.	MEDICAL	<ul style="list-style-type: none"> <li>▪ e.g., partial seizures, hypothyroidism</li> </ul>

The four most common types of canine aggression evaluated and treated by animal behaviorists include owner-directed aggression, inter-dog aggression between household dogs, fear-induced aggression and territorial aggression. The diagnosis and treatment plans for these four forms of canine aggression with mention of predatory aggression will be addressed in this two-part lecture.

### OWNER-DIRECTED AGGRESSION

#### **Aggression is Complex:**

Currently in the field of applied animal behavior there is a major controversy regarding “dominance” vs. “conflict” as a motivation to explain owner-directed aggression. Historically, any aggression a dog directed towards family members was immediately assumed to be the result of dominance. The majority of animal behaviorists now believe that most owner-directed aggression is rooted in conflict. However, in part due to popular animal behavior television shows and older literature, dominance and alpha style leadership methods are being revived. Sadly, revisiting old-style coercive punishment-based training methods is only creating more conflicted dogs. It is important to understand that aggression is complex and not a unitary concept. A number of factors are involved in canine aggression. Dominance and subordination constitute the role the behavior plays in relationships between individuals. Confidence and fear reflect a continuum of the dog’s emotional response that drives the underlying motivation for the aggressive behavior. Offensive and defensive behaviors define the actual behavioral response. A combination of all of these factors, which run on a continuum, influences the dog’s behavior towards the recipient of the aggressive reaction.



#### **Wolves and Dogs - Effects of Domestication & Selective Breeding:**

Although it has been historically tempting to make direct comparisons and extrapolations between wolves and domestic dogs in terms of their social behavior, it is essential to bear in mind that genetic changes resulting from domestication and the effects of life in a captive environment where abundant resources are all provided by the owner make direct comparisons between the wolf and dog inaccurate and not completely reliable.

Domestication has led to social changes in dogs. While wolves live in tightly knit family units called packs, free-ranging dogs exhibit more social variability living in small loosely structured groups that are often temporary. When compared with wolves, dogs have a less ritualized communication system. Wolves regularly reinforce status through ritualized greetings with the subordinate approaching a higher-ranking wolf in a submissive posture (crouching, tail low, head twisted to side, lip licking, and rolling over to expose their stomach). Higher ranking wolves respond by standing tall with head erect and tail elevated. In multi-dog households, even when a dominant-subordinant relationship clearly exists, the dogs do not regularly greet one another in a ritualized manner indicative of rank. Finally, the postures that domestic dogs can physically display varies by breed depending on head shape, ear carriage, presence or absence of tail, etc.

In addition, the tendency to select for dominant temperaments has been down-played in many, but not all breeding programs. Most modern breeds of domestic dogs have been genetically selected to have a decreased drive to pursue higher status and to be very tolerant towards humans no matter what the provocation. Having a “good temperament” means such dogs are easier to live with in an inter-species domestic environment. Most pet owners would have tremendous difficulty living with an Inuit Sled Dog, because this breed’s social skills still retain their natural form and status competition in the social group is clearly exhibited by this breed. Compare this breed with the modern German shepherd dog whose tendency to establish dominance is minimal in comparison. Through selective breeding, we have also altered many other innate behaviors in an attempt to make it easier to live with our dogs in a captive, non-working environment.

For example, in some breeds there has been a conscious effort to decrease predatory tendencies, making it easier to live with these dogs in a home with small children and pets. In other cases we selected to accentuate certain innate behaviours such as territorial behavior for guarding purposes. In this day and age, most owners keep dogs for companionship. We no longer engage these dogs in the activities they were originally bred to perform. When we keep dogs in a pet home, we stifle virtually all normal behaviors for a social predator. We don’t let them hunt their food, we frown upon territorial behavior because we live in a litigious society, we don’t let them breed or if we do we select their mates, we create artificial and sometimes incompatible social groups, and the list goes on. Because most dogs are now viewed as companions, the desire to attain high rank could be considered an irrelevant, if not maladaptive behavior in the domestic environment.

### **Argument in Favor of Conflict-Based Owner Directed Aggression:**

Most dogs seen for owner-directed aggression are not dominant or confident. These dogs often are fearful or submissive and show ambivalent body language towards the owner. When these dogs are confronted with a conflict situation, they may become aggressive. Insufficient, inconsistent, and incorrect attempts at establishing “dominance” by owners can be very instrumental in creating dog-human conflict because the dog cannot predict how the owner will respond in a given interaction. Some owners inadvertently give status to their dogs and then

attempt to force their dog to defer through physical means. Most dogs are willing to submit to their owners, but conflict arises because of inconsistent communication between owners and their dogs. Owners often confuse their dogs because they reward and punish the dog for same behavior. They do this all the time, and such unpredictable behavior clearly creates conflict for dogs. Owners also often misinterpret the dog's intent and fail to correct the communicative or environmental deficit that triggered the "misbehavior".

As you can imagine, this is very confusing for the dog. It is through these types of inconsistent interactions that dogs learn that aggression is an effective means of controlling their owners to achieve their desired goal, which is typically to deter further encroachment by the owner. Once aggressive behaviors are learned, they can be very persistent. If conflict is at the root of aggression, aggressive responses may serve as a coping mechanism for the dog in an unstable social group. In a stable social group where everyone communicates in a consistent and effective manner, there is no need for aggression or competition for social position. However, in an unstable social group, conflict abounds and some dogs have enough confidence that they are willing to address the instability via force.

NOTE: While the majority of owner-directed aggression cases appear to be based in conflict, we do see a small proportion of owner-directed aggression cases that appear to be rooted in dominance-driven competition over access to resources. Sometimes, a combination of status competition and conflict may be involved.

### **What is Dominance?**

Much of the misunderstanding about the concept of dominance stems from a) misinterpretations of natural wolf behavior that have resulted from interpreting wolf behavior via observation of artificially structured packs in captivity and b) misunderstanding of the concept of dominance in general. It is important to understand the concept of dominant-subordinate relationships because misinterpretation of these concepts has historically led to ineffective and abusive training techniques. This is one of the reasons behaviorists currently are loath to label owner-directed aggression as dominance. When competition over resources is the cause for owner-directed aggression, many behaviorists prefer to use the term status-related aggression rather than dominance because of the negative connotations of the latter.

It is important to remember that dominance is **not** an abnormal behavior but an integral, important component of social dynamics. Dominance is not aggression or force as is often mistakenly thought. Aggression is a "behavior with the intent to cause injury". Dominance refers to an established sense of social hierarchy, and it actually evolved to decrease aggression and the use of force between social animals. It's hard not to run into occasional conflicts when you live with a group of other individuals, but if you resolve conflict using force, this can be dangerous and can result in injury as well as social repercussions. If injury results in death, then the injured individual doesn't pass on genes and this is not biologically adaptive. Thus nature needed to devise a plan to resolve conflict without resorting to aggression, and that's what

dominance is all about. Dominance is simply defined as priority access to preferred, limited resources. That's all it is! "I want it, there's not enough to share, and I want it first!" Dogs' visual and vocal signals, which can progress to snarls, growls, snaps and bites, indicate the dog's underlying motivation for showing aggression. When the lips are puckered, the ears and body are forward, and the tail is elevated, the dog means business. When the lips are somewhat retracted, eyes are averted, ears flat, dog is barking, sometimes backing up, and its tail is lowered or tucked, the dog is signaling "I want this, and I'm willing to fight for it, but I'm feeling a bit defensive and insecure about my willingness to go forward".

The attacks of a dominant dog seem unprovoked, fast, and often the dog doesn't growl before biting. The dog may have a glazed look to the eye before and during the attack, and immediately after seem contrite, remorseful, or unaware of exactly what occurred. The "remorseful" behavior is really a sign of submission by a dog that is really not completely confident in its dominance in its social group. It's an attempt to circumvent an escalation of aggression, not really an apology!

Since dominance involves a social interaction, dogs are not born dominant, only with a tendency for dominance to develop. Dominant dogs may have a pushy personality constantly making demands, or they may remain aloof. They will maintain prolonged eye contact and are intolerant of prolonged eye contact from the owner or other dogs of lower status. Truly dominant dogs rarely exhibit submissive postures.

#### **Important Facts Concerning Owner Directed Aggression:**

- The dog may challenge some family members, but not others. Very submissive people or children under 1 year old are at less risk for incurring an attack. Likewise, very old people are often ignored by dogs. Children are particularly vulnerable because of their small stature and unpredictable body language.
- Whether aggression is exhibited is influenced by a number of factors, including the dog's motivation to control a particular resource, the dog's genetic temperament, hormonal status, the relative relationship of other individuals involved, and the dog's previous experience.
- Owner-directed aggression is complicated because it may change relative to time, place, and circumstance. However, it is relatively consistent within each specific situation.
- Males are more likely to display aggression (70:30) than females. Castration at any age helps to reduce dominance aggression in particular. Approximately 25% of dogs can be expected to show a 50-90% level of improvement after castration.
- Owner-directed aggression rooted in dominance usually develops between 18-24 months of age as the dog reaches social maturity, although it may present at a younger age. When aggression begins in a younger dog, it is likely to be based in conflict. Learning acquired in the dog's social environment has a major impact on whether or not the dog develops aggression

when its desires are thwarted.

- Young dogs that are predisposed to developing aggression as they age periodically may test their owners. Potential warning signs in young dogs include mouthiness, body blocking, demanding behavior, growling when disturbed, and resisting handling (particularly of the feet or head).

### **Situations Triggering Owner-Directed Aggression:**

Aggression occurring in the following situations usually stem from conflict, but in a minority of cases, it may indicate an attempt to dominate the owner. In most cases, one to three of the following behavioural signs are shown.

- protect food, stolen objects, preferred family members, toys or their bed
- may bite if awoken suddenly or disturbed while resting
- resists restraint, standing over, holding muzzle
- resists discipline
- may not tolerate prolonged eye contact
- may demand petting and later resent handling

### **Treating Owner-Directed Aggression:**

#### Dominance vs. Leadership

What drives the day-to-day interactions of the social group is clear and consistent communication between individuals in the group. Thus, if owners want control over their dog, they need to obtain their dog's respect by instituting a consistent and benevolent leadership program of which the cornerstone is clear communication. Keep in mind that dominance and leadership are not the same thing. Dominance implies authority, dominion and control. Leadership implies initiative and influence others willingly accept. Humans can choose leadership as a means to influence a dog's behavior. However, in relationships between dogs, dominance is usually the only way to obtain a high rank. There are many ways to resolve conflict without the use of force or aggression, and the following leadership program illustrates the recommended behavior modification protocol. The two primary cornerstones of therapy for treating owner-directed aggression are to **avoid confrontations** and **ensure that the dog earns every valued resource by following a command**. This attitude will, in time, cultivate the dog's dependence, respect, and reliance, and thus establish the owner's leadership and influence. It is critical that all family members over the age of six establish leadership over the dog.

NOTE: The following management, training, and behavior modification form the baseline

treatment recommendations for all dogs that present with behavior problems, aggression, or otherwise. Thus the good news is that whether cases of owner-directed aggression are more firmly rooted in status confrontations or emotional conflict, the treatment program remains the same. This treatment protocol is also highly recommended as a preventative protocol for raising puppies to promote behavioral health and avoid behavior problems down the road. The key when dealing with non-dominance related behavior problems is to make the program up-beat so the owner is “fun” so the dog enjoys and benefits from following the owner’s leadership. If you can train the owner to develop good leadership skills, most dogs will follow suit.

**Medical Rule-Outs:** A complete physical examination is recommended to rule out any underlying medical condition that may be contributing to the dog's aggressive behavior. If the dog receives a clean bill of health, a behavior specialist can provide a diagnosis and an appropriate treatment plan.

**Do Not Discipline the Dog:** Leadership does not equate with punishment. Inappropriate punishment does not build respect—it incites retaliation. Furthermore, learning stops once punishment begins. Thus, owners need to be strongly encouraged to not engage in scruff-grasping, pinning, or other forms of rough handling, because this will inevitably serve to increase aggression and mistrust between the owner and the dog. The first question owners of an aggressive dog often ask is how to respond when their dog directs aggression towards them. Given that they are seeking your advice for a pre-existing problem, they no doubt will experience additional adverse interactions with their dog before they are able to fully implement your recommendations for treatment designed to resolve the problem over the long haul. Thus, owners will require guidance as to how to respond to immediate crises.

If the dog is performing some unwanted behavior such as aggressing towards the owner, you can advise owners to do one or more of the following depending on the situation and the individual personalities involved:

Owners can completely ignore the behavior while holding their ground. Stand still, fold arms, and avoid eye contact until the behavior ceases. In other instances, implementing a “jolly routine” with others while ignoring the dog can diffuse this situation. Depending on the dog, it may be advisable to recommend that owners inhibit any body movement. In other cases, owners may be able to divert the dog's attention by telling it to come and sit or go to its bed and reward the dog for following the command. It is important to educate the owner about canine body language and their own body language so they can communicate more effectively with their dog. In all cases, harsh physical and strong verbal punishment is to be avoided. These latter “strategies” only serve to increase emotional arousal and escalate aggression for all participants involved in the negative interaction.

**Avoiding Confrontations:** Avoiding aggression is an essential component of the program, and if not employed, it will undermine all of the owner’s other efforts. Dogs usually win confrontations because they either growl and the owners back down, or they don’t back down

and the dog bites. Constant aggressive interactions will cause the dog to always be on guard and ready for the next challenge. To begin, owners need to complete a list of circumstances that elicit aggression from their dog, including those situations that induce growling and lip lifts as well as snaps and bites. Once they have compiled their list, they need to devise ways to avoid these interactions.

As benevolent as avoidance sounds, this really is not a lenient technique. For example, if the dog growls when the owner pets it on top of its head, owners should be advised to pet the dog in a different way that it enjoys. It is a good idea to avoid petting the dog when it is eating, resting, or otherwise engaged when the owner's attention may not be appreciated. If the dog tries to guard specific toys or delicious food treats, the owner can prevent this problem by removing all valued possessions such as toys, bones, and rawhides. The dog should not have access to anything it may want to guard from the owner. If the dog steals an object, owners should ignore the dog if the object is harmless and not valuable. If the owner needs to retrieve the object, they should distract the dog with a command and offer a more interesting alternative such as going for a walk or earning a treat. It is important to separate the reward/trade from the actual act of thievery lest the dog learn to steal for food!

If the dog threatens the owner during grooming or nail trims, take it to a groomer instead. A common situation in which dogs bite their owners occurs when the dog is prevented from achieving some goal by being grasped by the collar or scruff. To avoid such problems, it is essential that the dog is trained to respond to the basic obedience commands. If necessary, the owner can also leave a lightweight indoor leash attached to the dog's buckle collar so that the owner can control the dog from a distance. Owners may need to consult with a specialist behaviorist in order to develop safe and effective ways to avoid confrontations with their dog if simple avoidance is not possible or sufficient.

The dog should not be allowed on furniture if such luxury incites him to challenge the owner. Dogs accustomed to resting on furniture often guard these areas as prime resources for resting.

Demanding what they want, and getting it, is another way that dogs exercise control over compliant owners. Constantly responding to the dog's demands will undermine the owner's authority and create an atmosphere favorable for the expression of aggression. Owners should be advised to completely ignore all demanding behavior from the dog and should start and end all social interactions, including interactive play. Having said that, going against some dogs' will can also get an owner bitten, so they need to use good judgment to keep themselves safe.

It may be necessary to add specific conditioning techniques for each problem. You will probably need to give instructions for dealing with the specific problems that the owner has with the dog. If the dog is not aggressive over a particular resource, it may not be necessary to limit the dog's access. For example, if the dog has never shown aggression towards the owners when lying on the bed with them, owners may not need to deny the dog access to their bed. Canids sleep with their social group to promote social bonding, so you may wish to follow the old adage "if it's not broken, don't fix it". It is advisable, however, to have the dog's access to the



bed be by invitation only.

Too often our dogs only receive attention when they are misbehaving. It is VERY important that owners remember to reward all spontaneous good behavior. By doing so, this enables the dog to learn what is expected of it and the owners will have to contend with fewer confrontations.

**Nothing in Life is Free:** In order to begin the *Nothing in Life is Free* portion of the program, the dog must understand a few basic commands such as “come”, “sit”, “down”, and “stay” and ideally some commands for tricks as well. In the early stages of training, it is not imperative that the dog obeys every time on the first command until the owners feel sure the dog understands the commands issued and is in a position to obey should it so choose. Once the dog understands the rules, owners should request a compliant and speedy response. At this stage, if the dog does not obey on the first command, it should be ignored for at least 5 minutes. The dog shouldn’t be given a second chance with an additional command and owners shouldn’t turn the situation into a battle by trying to make the dog obey. If the dog sits before owners issue the command, they should ask for another response.

Owners must remind themselves that their dog can have anything it wants if it is prepared to work for it. The dog must learn that nothing in life is free and that the owner controls all valued resources. From now on, the dog will have to respond to a command (work) before it receives food, attention, toys, exercise, and freedom. Only water and air are free! Consistent training is essential. In order for the dog to be motivated, everyone in the family should follow the program and ration the various resources the dog receives. The person the dog is least likely to growl at or bite should train the dog first, and then the training should be generalized to all members of the family, including children over the age of six.

- Since food is such a valued commodity, it is imperative to make the dog realize the owner controls this asset. The dog must earn all food (including treats) from the owner by responding positively to a command given by the owner. The dog may hold out for a while before it will obey a command to receive food, but most dogs fold early on. Once the dog has earned its food, it should be allowed **15 minutes** to eat, after which any surplus food should be picked up. To avoid a confrontation, owners should not pick up the food in the dog’s presence.
- Petting, and the acknowledgment that goes with it, is a powerful reward for most dogs, and as such should be rationed in the same way as food. Petting of any description and at any time **has to be on the owner’s terms** to send a clear signal of their leadership. Owners must not submit to the dog’s demands for petting. Ask that the dog “says please” to be petted by sitting in response to a command in order to receive the petting it desires. However, petting can also become an annoyance for some dogs if it is improperly performed, rendered by the wrong person, at the wrong time, or if it is continued beyond a certain welcome period. In the latter instances, petting may actually trigger aggression. Petting sessions should be brief enough to leave the dog wanting more, although some dogs will bite if owners shortchange

them, so the appropriate duration of petting is a judgment call. If in doubt, owners should not pet the dog at all for several weeks until other aspects of the dominance control program are in place.

- Praise can be another highly valued asset for which dominant dogs should be required to work. Praising a dog continuously dilutes the value of this otherwise much appreciated acknowledgment, undermining the unique position as keeper of the key of approbation. Praise (and petting) can be thought of as money for a dog and can be used to command the same kind of respect. If the owner controls and rations both praise and petting, the dog will view the owner in a more authoritative light.
- The provision of toys is a privilege for which dogs must work. The owner should pick up all highly valued toys and store them in an assigned drawer or cabinet. Supply a toy only after the dog obeys a command. For young dogs that are still active and intent on chewing, owners may allow the dog to have some of its less coveted toys in order to avoid having the dog select the owner's possessions as chew toys. However, the dog should be required to follow a command in order to obtain access to any toys that hold particular appeal for the dog.
- Games are fun and as such should be rationed. Owners need to initiate all activities and decide when they are over. Rough games like slap boxing, wrestling, tickling, and tug-o-war should be avoided if these activities increase arousal and promote aggression in certain dogs.
- Freedom for dogs is one of life's privileges, and with privilege comes the need for social responsibility and respect. If the dog barks at the owner or paws at the door to communicate that it wants to go out, owners should be advised to ignore it. In order to obtain freedom, the dog must conform to the new house rules by sitting or lying down when instructed in order to earn the opportunity to cavort chaperon-free in the fenced in yard. Given some dogs' potential for aggression, if the owner does not have a fenced yard in an area where potential targets for aggression—be they other dogs or children—are absent, then the dog should always be escorted on lead.

**Exercise:** A minimum of 20-30 minutes of supervised, sustained aerobic exercise daily is necessary to make exercise a worthwhile therapy. Walking a mile or two with the dog is not really enough for most young, fit dogs. Agility, fly ball, Frisbee classes, swimming, fetch, runs in empty tennis court, with a jogger, or on a treadmill are all excellent forms of exercise. Simply turning the dog out in the backyard is often insufficient, since many dogs do not really push themselves to the maximum. Aerobic (running) exercise is also thought to increase serotonin levels and, therefore, we recommend it for all aggressive and anxious dogs. Serotonin is a neurotransmitter that promotes calmness and stabilizes mood.

**Training and Enhanced Communication:** Owners should be encouraged to practice obedience training for 5 to 10 minutes each day, since they will be using commands for control. Train the dog to sit, stay, come, down, and down-stay. Eventually, the owner should be having the dog perform 20-30 downs per day. While the owner may need the help of a professional trainer, it is better for owners to train the dog themselves rather than send it away for training. Make the

sessions fun using treats, praise, and toys for motivation. Click-and-treat training is an excellent positive training method for dogs, and this training technique helps to speed up the learning process which is rewarding for both owner and dog alike. A discussion of click-and-treat training is provided in the following section on fear aggression. Many owners begin to backslide on the *Nothing in Life is Free* program after two months or so. One reason for this seems to be that the protocol becomes boring. Having owners teach their dogs tricks using the click-and-treat training method and having owners enroll their dog in agility classes (many commands can be adapted for indoor purposes) will add a whole new level of enjoyable “command options” for owners that will increase their compliance.

**Diet:** If appropriate, feed a quality non-performance (16-21% protein dry matter), artificial preservative-free diet for a trial period of 2-4 weeks to see if there is any improvement in the dog’s behavior. A high level of protein in the diet is thought to block serotonin precursors from crossing the blood brain barrier. Change the diet over 3 days to avoid gastrointestinal upsets.

**Basket muzzle:** All dogs with aggression issues should be trained to wear a basket muzzle. The dog will be able to pant, take treats, and drink water but will not be able to bite.

**Head Halter:** Employ a head halter (Gentle Leader, Snoot Loop) to exert optimal control over the dog in aggression-inducing situations. The head halter gently but firmly establishes an owner’s leadership and control of the dog. Head halters send a biological signal of the owner’s leadership to the dog by exerting gentle pressure around the muzzle (maternal point) and at the nape of the neck (leader point). Use of a halter system empowers owners so they can communicate to their dog that “their bark has bite.” When the dog begins to misbehave, owners should tell their dog “enough” to signal to the dog that it should cease and desist. If the dog does not heed the command, then owners need to *make it happen with the Gentle Leader* by applying gentle upward tension on the lead. This will probably cause the dog’s hindquarters to fall to the floor, and it will tilt its head up towards the owner. Hold the tension until the dog does sit. The dog cannot bark or lunge while the owner has tension on the head halter. Once the dog “gives up”, let the tension off the lead, and reward the dog for ceasing with a “good boy,” and/or by petting him where he likes.

The Gentle Leader comes with an indoor dragline that is formulated to avoid “tangle ups” so owners can leave it on the dog when they are home once the dog is comfortable wearing the halter; this way owners can get their dog under control quickly if it becomes agitated. Not only do head halters provide the owner with more gentle control, but they also tend to subdue many dogs, thus reducing the number of aggressive incidents with which the owner has to contend. Shock or prong collars and harsh leash corrections are not recommended as a means of training an aggressive dog, as such measures have the potential to increase the dog’s anxiety and aggression.

As a final caution, beware of head shy dogs who may become fear aggressive when owners try to put the head halter on. For the rare dominant dogs you may encounter, be aware they may also resist the head halter because they don’t like it and know it puts the owner in the driver’s

seat. While these latter dogs, in particular, will benefit most from being trained to wear a head halter, caution is advised during the fitting and training process as these dogs may exhibit a strong reaction to having their control removed.

**Safety:** Finally, it is essential that dogs not be left unsupervised with young children. Children may unwittingly create conflict simply by walking past the dog or taking a toy or a stick or having food that the dog wants. If a dog feels threatened, it may warn children by growling or may simply punish them by snapping or biting. Avoid having any aggressive dog in close contact with children, and/or ensure the child's safety by having the dog wear a basket muzzle. Remember, both children and dogs can be unpredictable. Dogs tend to bite children on the face rather than on the hands or arms as they do adults. It is imperative, when children are involved, that the owner avoids any situations where the dog may become aggressive.

**Medication:** Depending upon owner compliance, most dogs respond positively to the leadership program alone and do not require medication. However, for refractory cases, particularly those where a high level of anxiety is a contributing factor for the aggression, concurrent treatment with a serotonin reuptake inhibitor such as fluoxetine may facilitate the implementation of the behavior modification.

This leadership program is quite concrete and very effective if diligently performed. Most owners see positive results after engaging in such a program with their dogs. Improvement peaks about two months after implementation of the program, and after this time, the owner can try to revert to a more normal relationship with their dog. How far the owner can relax his/her guard depends on the dog, but for most dogs at least half of the above measures must remain in place if the improved status quo is to be maintained. Dogs that have developed aggression always have the potential to revert to their old ways should the owner lower their guard too far. Therefore, owners must always be alert for potential challenges and curb any aggressive responses immediately by re-instituting a non-confrontational leadership program.

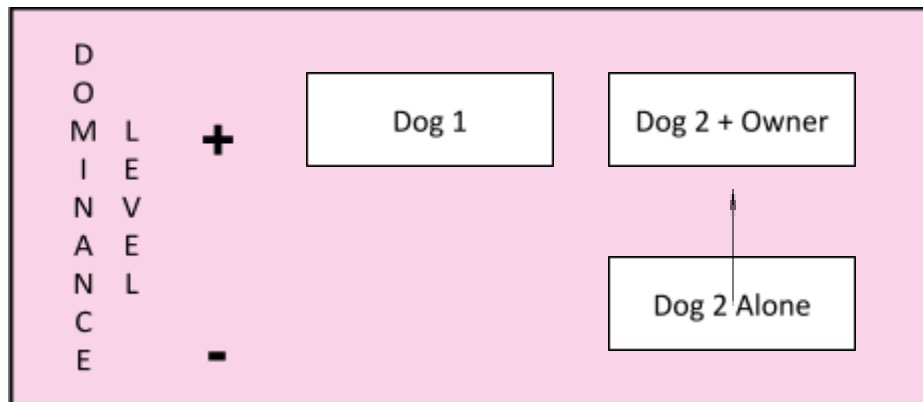
#### INTER-DOG DOMINANCE AGGRESSION (SIBLING RIVALRY)

Dogs in the same household may fight if they are at similar dominance levels. Canine housemates in an unstable canine hierarchy generally will fight in two distinct situations:

In the first, there may be a change in status because the usual higher ranking dog becomes old or the younger dog reaches behavioral maturity (18 months to 3 years of age). Fights are usually not life threatening, and a new hierarchy will work itself out within 2 to 3 weeks as long as owners do not intervene. Occasionally fights can last longer than 3 weeks, and the dogs cannot seem to establish a hierarchy. Typically the dogs are the same sex, and one of the dogs has just reached behavioral maturity. Any breed may develop this problem, but it is more common in terriers. Aggressive incidents typically are isolated to one or two circumstances (for example when penned together, at feeding, or over possessions). Treatment consists of avoiding the competition eliciting situations until a new hierarchy is formed. The owner may try to establish one individual as higher ranking by consistently feeding and greeting one dog

before the other. In this case, it is important to support the dog that “nature” would have slated to be more dominant (most often the older, incumbent).

The second and more common situation occurs because of an alliance between the owner and the submissive dog. This condition is termed **Alliance Aggression**. These fights can be much more dangerous and will persist for a considerable time. The fighting happens when a kind owner will not allow a pecking order to be established because he or she continually punishes the bully. This lowers the status of the dominant dog and elevates that of the submissive one, effectively potentiating the fighting.



#### How to Recognize Alliance Aggression:

- 1.) The dogs fight only in the presence of the owner. When left alone in the back yard, for instance, the dogs do not fight.
- 2.) The fights may be vicious (i.e., blood is drawn).
- 3.) Fighting has occurred for over 3 weeks.

#### Treating Alliance Aggression:

The first step in the treatment of alliance aggression is to determine which of the two dogs should be dominant. This decision is based on the behavior, age, health, longevity in the household, and tenacity of the two dogs (see above). In almost all instances, the owners have insufficient leadership over the dogs, which contributes to the confusion and to unpredictable interactions. The objective of treatment is to get the owner to establish solid leadership over both dogs but especially Dog #2.

- The owner should establish his/her leadership over both dogs, using the *Nothing in Life is Free* discussed in the previous section.
- Measures should be taken to avoid confrontations. For example, the dogs should be separated for feeding if food triggers aggressive contests.

- If the owner must give attention to the higher status dog (e.g., for bathing, grooming, nail clipping), it is a good idea to crate Dog #2 while the owner interacts with Dog #1 in view of the crate.
- Show both dogs that you recognize and support the hierarchy by feeding, interacting, and grooming Dog #1 before Dog #2.
- The use of a head halter system to control Dog #2 should be recommended. The halter and a 3-foot leash should be left on the dog when the owner is home.
- The owner should physically leave the room if mild fighting (posturing and vocalizations only) occurs. This may be inappropriate if there are concerns about the safety of the dogs.
- The dogs may have to be separated when the owner is not home as fights often occur when the owner returns.
- Medication may facilitate reintroduction efforts in sibling rivalry cases. Again, medication that increases circulating serotonin levels such as fluoxetine or clomipramine is generally the first pharmacological strategy to pursue.

Once the hierarchy is rearranged (owner>Dog #1>Dog #2), the owner can go back to a more normal relationship with the two dogs. However, Dog #1 must always be greeted, fed, groomed, and exercised first, and Dog #1 must never be punished for being dominant over Dog #2. Dog #1 may be mildly praised for asserting its dominance over Dog #2 if it is exhibiting appropriate dominance postures, though outright aggression should be discouraged. Dog #2 should be corrected if it exhibits dominance behaviors or aggression towards Dog #1. Mild corrections with a head halter are often most effective.

### **Dogs that Bully:**

Some dogs living in the same household fight for reasons other than dominance, and implementing a dominance hierarchy program incorrectly will escalate the fighting. The bully, a dog that overwhelms other dogs with overly assertive and inappropriate behaviors, is usually a younger dog that challenges the older incumbent for what appears to be no reason at all. Competition over resources is not involved, and the victim clearly shows body language indicating that it is trying to avoid an altercation. At some point the victim's level of tolerance is surpassed and mutual fighting occurs, often resulting in injury. Virtually all owners think the bully is "dominant", and they support that dog, thereby reinforcing the attacks. Bullies are never truly dominant; if they were, they wouldn't need to throw their weight around. To support the bully in this case will further deteriorate the dogs' relationship. The victim, who is most likely the more emotionally stable dog, should be supported as stated above so that bullying doesn't work. The bully should be taught self-restraint and how to interact in a non-aggressive manner.

### **FEAR AGGRESSION TOWARD PEOPLE**

One of the most frustrating experiences a dog owner can face is having a dog that hates

strangers with a vengeance and tries its best to repel them by any means fair or foul whenever they approach too close. The hallmark of this behavior is aggression to strangers **wherever they may be**. Fear aggressive dogs are not necessarily aggressive to all strangers and often will single out certain classes of people as the subjects of their aggression. Men and children are the most common targets of this type of aggression, though women are not immune.

Dogs exhibiting fear aggression may have genetic influences contributing to their fearful personalities; however, most often the underlying cause of fear aggression is adverse life experiences, particularly during the formative weeks/months of life.

A dog that will become fear aggressive is usually under confident around strangers from an early age. As strangers approach on the dog's home territory or beyond, the dog will back and bark at them and may flee to a safe distance if approached. Dogs that have been mistreated may be "hand shy" or may become particularly agitated by the movement of the stranger's feet. As the dog grows older, it gains in confidence so that what were feeble attempts at repulsion become more convincing. As strangers react to their tirades, the dog learns—from some people at least—that the strategy of intimidation works. This augments the situation further. This learning accounts for the particular orientation of fear-aggressive dogs to people who are uncomfortable around dogs. The dog perceives their uncertainty and capitalizes upon it. In the final stages of its evolution, defensive fear aggression can be difficult to distinguish from offensive aggression because the dog can develop such confidence in its defensive strategy that it shows little overt fear.

#### **Important Facts Concerning Fear Aggression:**

- It is directed towards strangers.
- Men and children are frequently the targets.
- Location does not matter. Fear aggressive dogs will challenge whether they are on their own turf or in unfamiliar territory.
- The inability of the dog to escape will escalate the aggression (e.g., short chain on lead or in a crate). Many fear aggressive dogs, particularly in the early stages of the development of their fear, will retreat if given the chance. It is only when there is no alternative but to fight to drive the "boogey man away" that they will resort to aggression.
- Once they have gained experience and understand that a "good offense makes the best defense, fear aggressive dogs tend to make a lot of noise, barking and growling, and display significant threat behavior and defensive posturing to discourage attack.
- The sex of the dog does not seem to be a factor in this behavior.
- Castration (or spaying) has little or no effect on this behavior.

## Signs of a Fear Aggressive Dog:

- The postural signs of a fear aggressive dog are usually ambivalent. The dog may simultaneously growl and wag its tail. People often gravitate to the most affirmative signal—i.e., the wagging tail—and assume the dog's intent is congenial. This is a potentially dangerous assumption to make! At the risk of being negative, always take the threatening end most seriously to avoid risk of injury.
- Growling, snarling, snapping, and biting when encroached upon are all signals of fear aggression. These communicative signals obviously can be displayed in other types of aggression, but not normally in such a dense constellation. In other words, in fear aggressive dogs, several of these signals of intent may occur in quick succession and in randomized order producing an aura of generalized fury. The intent is not to subtly communicate to establish relations, but rather to drive away the intruder.
- Fear aggression develops gradually with the dog barking or growling at strangers. It develops along with the dog's social maturity to the full-fledged expression of the behavior at 18 months to 2 years of age. Some breeds that mature at a faster rate may show signs as early as 12 months of age.
- Fear aggressive dogs will often remain wary but restrained until a stranger attempts to pet them. These dogs respond particularly poorly to people who approach them head-on while making direct eye contact and attempting to reach over and towards their head.
- Bites are usually directed around a person's nether regions (back of thigh, calf, heel, etc.), and are rarely "full frontal".
- A dog that has been aroused into a display of fear aggression usually takes some minutes to settle down as opposed to a purely dominant attack following which the dog will almost immediately go about its business as if nothing had happened.

## TREATING FEAR AGGRESSION

**Medical Rule-Outs:** You may wish to test a fear aggressive patient for medical conditions that might be contributing to increased anxiety, especially hypothyroidism.

**Basic Management for Fear Aggressive Dogs:** We recommend that owners implement the *Nothing in Life is Free* (NILF) program before addressing any fear aggression issues via counterconditioning and desensitization, as it helps to strengthen the relationship between a fearful dog and its owner. If the dog is confident in the owner's leadership skills, it will be more likely to look to the owner for direction when it is faced with an encounter that triggers its insecurities. Please refer to the Owner Directed Aggression section for a complete description of this behavior modification program. When implementing the *Nothing in Life is Free* program with fearful dogs, owners should be encouraged to make the program fun to increase the dog's confidence. Stripping the dog of all resources and creating a "boot camp" atmosphere is



strongly discouraged.

Provide supervised aerobic exercise and healthy, artificial-preservative free, non-performance ration as described in the owner-directed aggression section. Having the dog wear a head halter and basket muzzle for systematic desensitization exercises is recommended.

**Communication:** Click & Treat training may facilitate training endeavors. Owners can obtain further information regarding this type of training by calling 1-800-47-CLICK or checking the website [www.clickertraining.com](http://www.clickertraining.com). The advantage of clicker training is that it allows owners to reward the dog at the exact moment it is exhibiting the wanted behavior. There are no commands or force involved. Basically, you reward behaviors that the dog performs that you want to reinforce and ignore unwanted or neutral behaviors. In addition to click and treat training the dog for performing tricks or obedience, you can click and treat the dog for remaining calm when it encounters another person that would typically trigger its fearful/aggressive response. At first the owner can click and treat for any behavior that is not aggressive or fearful, keeping the dog completely focused on the owner. Next they'll click and treat as soon as the dog notices the unfamiliar person. Once the dog makes the connection that seeing a person is followed by a reward, the owner can progress to asking the dog to notice the person and then make eye contact with the owner before the dog receives a click and treat. If the owner tends to get nervous and tighten up on the leash when the dog encounters a fearful stimulus, owners should desensitize the dog to a tight leash before they begin training. Simply tense up and tighten the leash when no one is around and then praise and reward. The goal is for the dog to think nothing of the owner tightening the leash and getting tense. That way the dog won't view this behavior on the owner's part as a signal that the unfamiliar person is someone to fear and subsequently challenge. Do not tighten the leash if the dog is wearing a head halter.

Finally, fearful dogs learn more quickly when they are allowed to approach a person and are rewarded for their confidence and relaxation in the interaction. Cornering a fearful dog and forcing it to interact will trigger aggression from such dogs. They may start off growling, but if the person persists, the dog will soon learn that actual physical connection in the form of a bite is the most successful strategy. People "teach" dogs to be physically aggressive because they ignore the dog's preliminary body language indicating that it is uncomfortable with the interaction.

**Relax on Command:** Owners should teach their dog to relax on command by paying attention to them. Under non-stressful conditions, have the owner teach the dog to sit and watch them in order to receive a food treat. The owner should say "sit", and as they move their finger towards their eyes, say "watch me". If the dog relaxes by paying attention to the owner, they should reward the dog with a small, delicious food treat. Perform relaxation exercises daily for the first 5 days. Each day, have the owner increase the amount of time that the dog must pay attention to them in a relaxed manner before it receives a reward. By the end of the fifth day, the dog should be able to sit while focused on the owner for 25-30 seconds, no matter what the distraction. At this stage, when owners sense that their dog is about to engage in fearful or

aggressive behavior, they can use this technique to interrupt the behavior before it is initiated. It is important to practice this exercise on a periodic basis to ensure its effectiveness when it is needed.

For the time being, the dog should not receive treats unless the owner is working on relaxation or other training exercises. This will help motivate the dog and strengthen the positive association between special treats and situations it prefers to try to control.

**Avoid punishment:** Whenever a dog is behaving in a fearful manner, it should be ignored. Punishment will worsen the dog's perception of the situation. Always remember that learning stops the minute punishment begins.

**Systematic Desensitization and Counterconditioning:** As with all other fears, desensitization—a process of gradual systematic re-exposure to the fear-inducing stimulus (in this case the person or type of person)—is the gold standard of treatment. This stepwise approach is usually carried out in conjunction with counterconditioning, i.e. training a different, more acceptable attitude and response at each stage of the introduction process. Counterconditioning, which is usually accomplished using food treats in conjunction with a “relax” command, is not absolutely necessary but expedites the desensitization process.

For dogs that prefer to keep their distance from strangers that come to the home, training them to relax in a safety zone area where they won't be disturbed by visitors can be helpful. This requires that the dog first learn the “down-stay” command. Once the dog has learned the basic obedience commands, it can be trained to perform long down stays while the owner moves progressively farther away. First train the dog to “down-stay” on a mat or dog bed. Initially, reward the dog every 10 seconds if it lies still, then every 20, 30, and so on. Once the dog understands the concept, the owner can institute intermittent rewards. Every time the dog breaks the stay, a verbal correction should be given to indicate that there will be no reward and the dog should be escorted back to the mat. The dog will quickly learn that if it breaks the stay, it will be put back on the mat, but if it holds the down-stay, it will be rewarded. Once the dog performs a reliable “down-stay” when the owner is in the room, the owner should ask for this behavior as they move progressively farther from the dog. Next, the “down-stay” should be utilized while the owner is in the room but otherwise occupied. Then the dog should be required to remain in position as the owner exits the room but remains nearby. The distance and time the owner is away from the dog should be increased until it can remain in a down-stay for 20-30 minutes in the owner's absence. When visitors arrive, command the dog to “down-stay” on its mat located in its safety zone. Providing delectable, long-lasting treats will motivate the dog to remain in place and relax.

The following is a basic example of a desensitization program that can be adapted for a number of fear based conditions. You will need to fine-tune the program for each individual case. The general steps in the program are as follows:

- 1.) First, owners must prevent any uncontrolled exposure to strangers.

- 2.) Teach the dog the “sit and watch me” command or, alternatively, to remain in a relaxed (back legs sideways) down-stay position. It is preferable to use a head halter during such exercises as they convey a sense of leadership to the dog, act as power-steering in the event that the owner needs sudden control down the road, and will make desensitization more controllable and safer for the individual volunteering for the exercises.
- 3.) Reward the dog’s compliance with warm praise, food treats, and/or petting.
- 4.) Identify the dog’s reactive distance, the distance at which it first shows signs of unease, and begin desensitization training at a slightly greater distance.
- 5.) Introduce a mildly fear inducing person at a distance; reward the dog for remaining calm.
- 6.) As long as the dog remains relaxed, ask the person to move a little closer and repeat the exercise.
- 7.) If the dog is not easy to keep still, an alternative strategy is to have the person stand still and walk the dog around the person in progressively decreasing circles.
- 8.) If the dog remains quiet and calm when the person is fairly close to it, the person can try walking by and dropping a (delicious) food treat in front of the dog. If the dog consumes the treat, this is an indication that it is fairly relaxed. Later the person can walk past and hold out a treat and see if the dog takes it. The goal is to teach the dog to associate the visitor with pleasant experiences.
- 9.) During the early stages of training, volunteers should be advised not to make direct eye contact with the dog and not to approach it directly. Instead, they should approach with a curved trajectory, move slowly but purposefully, and avert their gaze (don’t stare). An approach like this is less threatening to anxious or fearful dogs. It is unwise for the person to reach toward the dog.
- 10.) If the dog cannot maintain a controlled sit or down and cannot remain focused on its owner, is tense, barking, or pulling toward the stranger, the owner should return to an earlier phase of training.
- 11.) Ideally, throughout the training process, no one should come close enough to the dog to trigger a fearful or aggressive response. If the stranger approaches too close and the dog becomes aggressive, the stranger should stand still until the owner can regain the dog’s attention, preferably in response to a previously trained cue. The dog should then be rewarded for the corrected response. Following such an incident, the owner can ask the person to retreat to a distance at which the dog was comfortable previously and resume training (providing that the dog does not remain aroused).
- 12.) Once the dog remains relaxed in the person’s presence and is accepting food treats from them, it may be allowed to interact, secured by means of a 10-foot nylon training leash. The dog should be allowed to initiate interactions with the person, not the other way round. If the dog chooses to approach the individual, have the person passively offer their hand for the dog to sniff and/or hold out a food treat. The person should never advance their hand rapidly toward the dog’s muzzle. If the dog has been clicker trained, the person can hold their hand out as a “target” and the dog can be clicked and treated for approaching or touching the “target”.
- 13.) If the dog indicates that it would like to be petted, the visitor may do so, briefly, but should avoid reaching up and over the dog’s head and should avoid making prolonged eye contact.
- 14.) These exercises should be repeated with a variety of mildly fear-promoting volunteers in a

variety of different environments.

**Pharmacological Intervention:** Pharmacological treatment can be used to facilitate re-training and reduce the likelihood of aggressive encounters. Again, drugs that increase serotonin and block catecholamines are best. Beta-blockers, drugs that block the actions of the fight or flight hormones (epinephrine and norepinephrine), may also be employed with some benefit in some cases.

NOTE: Fear aggression is probably the most common type of aggression that veterinarians see in practice. Many dogs develop fear aggression related to veterinary personnel for obvious reasons. Desensitizing a puppy to veterinary interventions by taking time and using rewards can be beneficial for the veterinarian and patient in the long run.

#### INTER-DOG FEAR AGGRESSION

Some dogs are aggressive to other dogs because of fear or anxiety. For these dogs, a good offense is probably regarded as the best defense. The fear reaction is a combination of psychological, physiological, and behavioral responses to a perceived threatening situation.

What initially manifests as backing, barking, or running away in the youngster metamorphoses into ambivalent approach-avoidance behavior or frank offensive behavior as adult confidence and dominance develops. Fear aggressive dogs may be genetically predisposed to respond in this manner, but nurture seems to be intimately involved in the creation of such individuals. The majority of fear aggressive dogs have a checkered history of insufficient or inappropriate early socialization experiences with other dogs. While puppy socialization classes and play time at daycare facilities can often offer positive opportunities for owners to expand their dog's socialization, it is VERY important that the people supervising these social encounters are knowledgeable about dog behavior. When referring clients, please be very certain that you are comfortable with the expertise of your referrals. Many puppies can be overwhelmed when placed in large classes or with other puppies that are bolder or overly active. The result can be that in an effort to enhance a puppy's socialization experience the owner may inadvertently create a situation that promotes the development of inter-dog fear aggression.

Fear aggression expressed toward other dogs is usually directed towards certain types of dog (e.g., large dogs, same sex dogs, or overly energetic dogs) or it may become generalized to **all** other dogs. Careful inspection of the body language might reveal some fearful signs, such as furtive sideways looks, ears flattened to the head, tail tucked, and hackles raised in an attempt to intimidate the canine intruder.

**Important facts about fear aggression to other dogs:** Dogs that exhibit inter-dog fear aggression will show the same signs as those dogs that display fear aggression to people. Please refer to the previous section for review.

## **Treatment of Inter-Dog Aggression:**

There are several measures that can be taken to rehabilitate these dogs, but none of them or even all of them in concert will fully correct the problem once the fearful emotion has become established. The genetic and/or learned factors that lead to the development of fear aggression do not go away. The proper perspective to take is one of learning to manage or train the dog to accept fear-inducing situations, rather than expecting a “cure” for this particular condition. The goal is to optimize the dog's physical condition and management and to superimpose new learning that, if properly acquired, will mask earlier adverse experiences. For additional detail, please refer to the section on “Fear Aggression Directed Towards People” since fear aggression towards other dogs is along the similar lines as that outlined for treatment for fear aggression directed towards people. The only difference is that the owner will be working with an unfamiliar dog that is being controlled by another person. If the dog is also fearful towards people, it is best to start training exercises with a familiar person in charge of the unfamiliar dog.

## **TERRITORIAL AGGRESSION**

Alarm barking is virtually synonymous with the word dog. It is thought that our ancestors, some twelve to fourteen thousand years ago, befriended wild type canids at least in part because of this attribute. After all, it was very useful for prehistoric humans to have early warning of encroaching adversaries or predators and with the superior sensory system the dog could deliver. Even in the modern era, dogs are still valued for this alarm barking function, and many a household targeted by intruders has been passed over as a result of this audible warning. Having a dog in the house provides at least as good, if not better, protection against unwanted incursions than an electronic surveillance system.

The first function of barking of this nature is to intimidate infiltrators, saying in so much, “I know you’re out there, you’d better watch out.” In addition, alarm barking will also alert other members of the pack who can then spring to the physical defense of their all-important territory. If the alarm barking serves to intimidate the intruder, the behavior is reinforced by this positive effect. However, if it fails, the intimidation must be escalated to include other warning expressions of postural displays, lunging, and even frank aggression. Although alarm barking over which the owner has no control can be aggravating, the real problem lies in those dogs that bite first and ask questions later. Dogs with the confidence to bite and a low threshold for doing so present a dangerous obstacle for any visitors to the home turf.

In the domestic environment, territorial aggression can be directed toward human beings or other dogs. The territory generally includes the house and yard plus abutting areas (e.g., sidewalks) that the dogs regularly patrol and any family vehicles in which they routinely ride.

When dogs exhibit aggressive behavior only on their perceived property, but do not respond aggressively to strangers or unfamiliar dogs on neutral turf, territorial aggression is the likely

diagnosis. There are two primary motivations for territorial behavior, confidence or fear.

### **Types of Territorial Aggression:**

- 1.) Territorial aggression associated with confidence: Dominant dogs have a responsibility to warn other pack members of a stranger's approach, and they do this with confidence and authority. Consider for a moment a truly respectful but self-confident canine curled up asleep on the floor when it suddenly detects the sound of footsteps on the drive. The dog will spring to attention, walk towards the door, barking, and will stand guard until its owner heeds its call to arms. Dogs that are overly confident and in control—both in absolute terms and with respect to their human family members—may provide a serious obstacle for any visitors to the home territory. Where owners have some control, they can usually reassure the dog that the person is in fact welcome, at which point the dog will settle down. In most cases, once a stranger has been welcomed inside the home, the confident-territorial dog will relax and enjoy the visitor's company, but it is necessary for them to run the gauntlet of intimidation first before being accepted into the inner sanctum.
- 2.) Territorial aggression associated with fear: Some dogs, notoriously of the herding breeds, show a variation of the territorial aggression theme. Perhaps they do have a low level of confidence and would bark anyway, but some of them also are a tad insecure or even frankly fearful. As youngsters, they may back up and bark at the sound of approaching people, but as they grow older, they find themselves more intimidating and learn that they can drive the bogeyman away. Uniformed visitors like the mailman or UPS delivery person are prime targets for this learned type of aggression. The person comes, the dog barks, the person leaves, and the dog takes credit. The behavior is thus reinforced. The manifestation of a dog that barks at and is aggressive toward strangers only while on its own territory is one of territorial aggression, but the motivation is somewhat different from the aforementioned confidence-related type of territoriality. To distinguish fear-related territorial aggression from the more purely confidence-driven variety, it is helpful to consider the following factors:
  - a.) The posturing dogs show during displays of aggression can help distinguish the fear-related type of territorial aggression from the territorial displays of a more confident dog. Territorial/fear aggressive dogs frequently show ambivalent body language similar to fear aggressive dogs, including approach-avoidance behavior, tucked or semi-tucked tail, slinking gait, and an indirect approach.
  - b.) Territorial/fear aggressive dogs do not usually settle down completely while visitors are in the home and are prone to outbursts, pursuing people if they move suddenly or leave the house.
  - c.) The bites of territorial/fear-aggressive dogs are usually directed from behind, or they may simply nip, ripping clothing. The bite is usually of a hit-and-run nature.

- d.) In a way, the only distinguishing feature between territorial fear aggression and overt fear aggression is the level of confidence that the dogs possess. Fear aggressive dogs generally have enough confidence to be aggressive to strangers on or off their own territory. Territorial fear aggressive dogs have a low level of confidence that permits the expression of fear aggression to occur only on the home territory or from within the safety of the owner's vehicle.

### **Important Facts Concerning Territorial Aggression:**

- It starts when dogs are young and is amplified by learning.
- Territorial/confidence aggression is rarely a problem, but territorial/fear aggression can be difficult to cope with.
- Once ingrained, both types of aggression are difficult to “cure” but can be controlled reasonably well by logistical and physical control measures.
- Males may be more likely to show territorial/confidence aggression, but dogs with territorial/fear aggression are represented fairly evenly between both sexes.
- Neutering male dogs (or females) does not seem to have much effect in reducing this behavior.

### **Signs of Territorial Aggression:**

- Barking and charging around as strangers approach or pass by the house or car.
- Barking and lunging at strangers after the door is opened.
- Territorial/fear dogs have generally anxious dispositions.
- Territorial/fear dogs can be reactivated by a visitor's movements or gestures once they are in the house.

### **General Treatment for Territorial Aggression:**

Although confidence-based territorial aggression is easier to manage than fear-based territorial aggression, both forms of territorial aggression can be addressed reasonably well by means of the previously described baseline management measures (Nothing in Life is Free, exercise, diet, training), appropriate control (Gentle Leader), and containment. For obvious reasons, there is considerable overlap with the recommendations provided for treating fear aggression in the previous section. For dogs with territorial fear, desensitization to approaching visitors along with counter-conditioning to alter the dog's perception and behavior during progressive planned exposure to visitors is key.

### **Safety Precautions:**

Owners should keep doors secured to ensure that no one enters without warning. A dog that has bitten a stranger coming onto the property should not be allowed to roam unsupervised while there is the faintest chance of a stranger entering his zone. For these dogs, all off-lead exercise should be conducted in safe places and constantly supervised by an informed owner.

who has realistic expectations of the dog's behavior. Electronic fences pose a particular problem for dogs with territorial aggression. The dog knows where HIS territorial boundaries are, but visitors do not, and they may unwittingly cross the line. In general, territorial dogs are more aggressive when they are fenced in, because a fence allows the dog to know exactly where the boundary of his territory lies, and he will patrol and protect it. Many dogs that display territorial/fear aggression also have high prey drive and will chase children on bicycles, joggers, skateboarders, etc. down the street. Since the drive to perform this chasing/predatory behavior is so strong, and the behavior is self-reinforcing, it is extremely difficult to break this habit. Accordingly, such dogs should be confined by a real fence **not** an invisible fence. Keeping the dog at the back of the house may be helpful, and the use of a crate with indoor visitors may be indicated for safety reasons. Finally, owners should consider posting a "Dog on Premises" sign as a responsible reminder that a dog is on the property.

### PAIN-INDUCED AGGRESSION

When dogs are in acute pain and are flooded with catecholamines, their aggressive threshold is lowered. Veterinarians often find this out the hard way when they go to lift or manipulate a dog that has been struck by an automobile. Even the friendliest dogs may bite in this situation. Pain-induced aggression is an understandable behavior that is very difficult if not impossible to prevent. Pain-induced aggression can be contained by using muzzles.

### REDIRECTED AGGRESSION

Dogs that do not have the courage or opportunity to come forward and attack some source of threat may redirect their aggression onto another dog or person standing nearby. Some may even direct their aggression onto objects. The human equivalent of this would be an angry man punching at a wall. Redirected aggression per se is usually over as quickly as it starts but can lead to repercussions downstream. The only way to deal with redirected aggression is to anticipate the circumstances and avoid them or to desensitize the dog to the stimulus that causes the aggression.

### SEXUAL AGGRESSION

Sexual aggression is more important in other species than it is in dogs. It can occur during breeding when an estrus female repels the advances of an unwanted male. Sexual aggression is fueled by estrogens.

### MATERNAL AGGRESSION

Maternal aggression is another normal behavior in which a bitch will protect her pups from what she perceives as a potential threat. Usually maternal aggression does not present a problem. We have had only one case of maternal aggression at Tufts since the beginning of the behavior program, and this involved a Bull Terrier bitch that became overly protective of her litter and growled and lunged at her owner for the first time. The behavior was reversed when



the bitch was spayed and a short course of progestins was initiated. It never returned. The course of maternal aggression exactly parallels the rise and fall of **prolactin** following parturition. It is not entirely clear whether there is a cause and effect relationship here or whether the aggression is triggered by falling progesterone and estrogenic effects. Either way, hormones are definitely involved.

### PREDATORY BEHAVIOR

Some people do not regard predatory behavior as a bona-fide form of aggression because there is no affective (mood change) response involved. A dog that chases, catches, and kills a rabbit shows none of the affective signs associated with dominance or fear aggression. As far as the dog is concerned, it is just business as usual. It's just a dog's way of having lunch. However, from another angle, it is reasonable to classify predatory aggression along with other forms of aggression as it does result in damage or destruction of another party. You sometimes hear in the news about a dog that has killed a lamb or other small creature and has been branded vicious and a killer. Certain breeds of dogs have very high prey tendencies because of strong selection for these traits. The most common breeds include all terriers and various hunting and herding breeds. The two phases of predatory aggression are:

- 1.) Appetitive (searching, chasing, immobilizing)
- 2.) Consummatory (eating)

Some people feel predatory behavior can manifest itself in ways other than aggression directed towards genuine prey animals. They feel that it may be stimulated in certain dogs by fast moving modern day prey facsimiles such as skaters, joggers, bicyclists, and so on. It is even suggested that when larger dogs are triggered by rapidly moving smaller dogs, predatory instincts are behind this form of attack. If you come across a dog with high prey tendencies that is exhibiting aggression toward moving targets, predatory behavior is worth considering as a diagnosis, though it is often hard to prove that this is what is going on. The difficulty in treating predatory aggression is that it is hard wired and driven by natural forces. In addition, it is intrinsically rewarding.

### GROUP AGGRESSION

This type of aggression, which may involve components of various types of aggression mentioned above, represents a form of social facilitation or "packing" behavior. Some dogs that are not normally aggressive may be stimulated to act aggressively because others in the group are acting this way. The most austere manifestation of group aggression is that evidenced when groups of dogs attack a young child or infirm person. Whatever the motivation for the behavior, it is the pack mentality and group behavior that accounts for the serious results. It may be that predatory motives underlie the initiation of some of these group attacks with one dog initiating the chase and the others joining in. In nature, dog packs attack in groups, so this type of behavior would be anticipated.

Another form of group aggression may be seen when a group of young children are playing in the back yard, and a dog is running with them. The combination of the running, shouting, and screaming excites the dog, who gets carried away with the proceedings. The next thing that happens is the dog is running alongside one of the children and snapping sideways at it as if trying to immobilize some prey animal. This type of attack could be termed “high arousal aggression” or “group aggression” and may involve predatory instincts.

### LEARNED AGGRESSION

It is quite possible to train any dog to be aggressive by rewarding aggressive behavior. The classical example of this is in protection or attack training as in Schutzhund German Shepherd (and Rottweiler) training and in police dog training. These dogs are trained to attack a sleeve and to latch onto it. The longer and harder they hang, the bigger the reward. At no time do these dogs ever experience any negative consequence from their attack as this might discourage them. The curious thing with the police dogs trained to attack the sleeve is that they are really not attacking the man so much as the sleeve. As with the previous type of aggression, it is exacerbated by increasing the dog’s level of arousal (which is done immediately before a performance).

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