

SIBLING RIVALRY

What is a dominance hierarchy and why is it important to dogs?

Dogs are social animals whose evolutionary history makes them willing and able to live in groups. Group living enabled the dog's ancestors, wolves, to work together to obtain food, raise their young and defend their territory. It would be counter-productive for members of a group to fight with each other and risk injury. Although domestic dogs are not wolves, they do have a social structure in which each dog is either dominant (leader) or subordinate in its relationship with each pack member. This is a "dominance hierarchy". The leader or "alpha" dog is the one that has first access to all the "critical" resources. These resources include food, resting places, mates, territory and favored possessions. Assertion of dominance by the alpha is generally communicated through facial expressions, body postures and actions. Fighting is rare, since as soon as the subordinate submits or defers to the alpha animal and the alpha gets its way, he or she gives up the challenge. The hierarchy may appear non-existent in some households while in others the hierarchy may not seem to be consistent depending on the situations and resources. This may have to do with the relative value of the resource to each dog. Of course, with domestication, socialization to the humans species (and possibly reduced socialization with other dogs) and selective breeding for such a broad range of physical and behavioral characteristics, the concept of the wild dog or wolf hierarchy may not entirely apply equally to all members of the domestic canine species (*canis familiaris*).

How do I find out why my dogs have been fighting?

Since the aggression could be due to normal hierarchal challenges, medical problems, owner responses, excessive anxiety, poor social communication skills or perhaps a lack of impulse control, a full behavioral workup is advised. This would start with a physical examination including a neurological assessment, diagnostic tests to rule out medical problems, and possibly treatment trials to try and resolve the health issues and control the signs. However, the most important diagnostic tool in any behavioral case is often the history you provide. In addition, to the general information on the family, the household, your schedule and previous training, the specifics of the problem itself from the time it began to the present day is critical. A videotape can also help us to diagnose what is happening between the pets.

What if the problem is determined to be competition for hierarchy? What can be done?

Trying to treat two dogs as equals will only serve to counter the natural tendency toward a hierarchy. The dog that is the more dominant in a relationship needs to be supported in its position and the more subordinate must be taught to accept the relationship. When you support or encourage the subordinate dog as it tries to gain access to resources such as your attention, the dominant dog may begin to challenge and fight, in an effort to keep the lower ranking dog in its "place". If you then discipline the dominant dog, or pull the dominant dog away, you have favored, supported and come to the aid of the subordinate dog, which may encourage the subordinate to join you in turning on the more dominant. Other dogs in the home may also join in the fight or attack if you are punishing or disciplining a dog (or family member). Since the hierarchy may vary between resources, based on the relative motivation to acquire and retain resources, it is also important to identify in what situations these problems might arise. For example if the dog you consider more subordinate is in control of a favored resource (e.g. sleeping area, toy, food bowl, owner's affection) and the more "dominant" dog is not challenging, anxious or concerned then this type of behavior does not, for now need to be stopped or discouraged.

Both my dogs are the same age, and after a third, older dog died, they began to fight — why?

Conflicts may occur between dogs when the dominance status is ambiguous or when they are particularly close in rank. After the decline, illness or death of an older dog, fighting may begin in the remaining dogs even when one is clearly dominant. This is because the older dog may have helped to maintain a stable relationship amongst all dogs and now they are trying to establish new positions. In any case the fighting can be severe and injurious. It is also possible that the change to the household and pack leads to increased anxiety in the household. Although you should generally attempt to allow dogs to resolve their differences on their own you will need to intervene if there is the potential for injury. Under no circumstances should the dogs be allowed to "fight it out". You could be injured due to redirected aggressive attacks, or when you attempt to break up the fight (see below).



Canine Aggression

My dogs have lived together for some time and now they are fighting. Why?

Fighting between dogs within a household can have several underlying motivations:

- 1) Fights may occur when a younger, larger, more agile dog challenges an older, previously dominant dog in an attempt to alter the existing hierarchy. This might be most likely to arise as the younger dog grows and matures or as the older dog ages or becomes more infirm. If the older dog acquiesces, things will be fine; however, if the older dog does not relinquish rank, fighting can persist. In addition, owners may not want the change and will intervene, which creates anxiety, may exacerbate the fighting and may inadvertently support and encourage the dog that is more suited to a subordinate status.
- 2) A change in the household, routine, or family may lead to altered responses between the pets. This may result from underlying anxiety in one or both of the pets or an inability to adapt the change. In addition, once aggression arises between dogs, regardless of cause, the learning that has occurred may then affect further interactions between the dogs.
- 3) Fighting of a younger dog to a dog that is aging or ill may be a function of the inability of the older dog to respond with appropriate postures and signaling when interacting with the younger dog. This may lead to a change in the hierarchal status. If pet's responses, including aggression are due to an underlying disease process, the medical factors will need to first be addressed if a harmonious relationship is to be reestablished. Unfortunately many medical problems, especially those associated with aging might not be able to be entirely resolved and in these cases, prevention rather than improvement might be all that can be expected. For example, dogs with medical conditions that lead to pain and irritability may become increasingly more aggressive when approached or handled. Dogs with cognitive dysfunction, sensory decline or disorders affecting mobility, might no longer be able to communicate effectively with other dogs both in the display of signals as well as in reading the signaling of others (through facial expressions, body postures and actions). While some dogs are quite tolerant and readily adapt to the changes in the way that the older (or ill) pet responds, many dogs become more anxious and unable to cope with the altered behavior of the older pet. .
- 4) When the social group changes such as the higher-ranking dog leaves or a new dog enters the home the existing dogs try to restructure the social relationships. This can also occur between dogs raised together as they reach social maturity and attempt to restructure their relationship.
- 5) In some cases, aggression between the dogs may be redirected--that is, when one or both dogs become highly aroused by an event or stimulus unrelated to other dog (e.g., mail carrier's arrival, owner's departure, owner's homecoming), it may direct its aggression toward the other dog because it is nearby or accessible
- 6) Fights are most likely to occur over access to resources that are considered important to one dog more than the other (resource holding potential). Also, see our handout on possessive aggression. These might include food, resting places, territory, favored possessions or social interactions with the owners or another dog in the home. These fights occur most often between dogs of near equal status and often, but not always, dogs of the same sex, and seem to be most severe between female dogs. High states of arousal, and resources that are particularly appealing or novel may increase the chances of aggression. Fighting would most likely arise if both dogs have a high desire for the same resource, if the desire to retain the resource is stronger in the more subordinate dog (especially if he or she gets to the resource first), or if the owner supports the dog that is being challenged.
- 7) With age and maturity, some dogs with formerly harmonious relationships begin to display posturing and behavior that is inappropriate in a social context. In some cases it might be that the previously subordinate dog fights back in situations where it previously displayed appeasing and deferential posturing. Conversely dog A, the more dominant dog may continue to attack, despite appropriate subordinate signaling from its housemate. Or dog A may not display any preliminary posturing (growl, snarl, stiffening) when challenged but proceeds directly

to a full-out attack. In both scenarios, dog A is behaving inappropriately. These cases can be diagnostic dilemmas and allowing the pets to work things out or to merely support the hierarchal structure might lead to serious injury.



How should I break up fighting if it occurs?

This can be a dangerous situation for people and dogs alike. Owners usually try to reach for the collar of the fighting dogs, or if one is small, pick it up. This can result in severe owner injury if the fighting is very intense. If both are wearing leashes they can usually be pulled apart. A leash attached to a head halter is preferable since it would then be possible to turn the head and close the mouth. One of the greatest challenges is to determine whether one or both dogs is responding inappropriately. If one of the dogs is showing deference signals and subordinate posturing and the other continues to fight then in this example, the focus of control (i.e. leash and head halter) might need to be on the more dominant. If all else fails, you might be able to break up the fight with a water rifle, citronella spray, broom or another distraction (such as pepper spray or a fire extinguisher). Reaching for the dog is usually the worst thing to do, as you could be injured (either accidentally or intentionally).

When people intervene in dog fights, redirected aggression is possible. Aggression (growl, snarl or bite) can be redirected to a person, animal or object other than that which evoked the aggression. If during the course of a dog fight, you pick up one of the dogs, the other may continue to attack and direct it at you.



What should I do when one of my dogs challenges another?

Aggression between household dogs can be difficult to treat. You will need to identify the situations in which aggression arises and insure that you are not encouraging a more subordinate dog to challenge the more dominant. Similarly you would not want to encourage the dog that is less interested in a resource to challenge the one with a higher motivation to hold on to that resource. It is critical that you never come to the aid of the subordinate against the more dominant. If left alone, the dogs will often use posturing and threats to end encounters without injury. If one dog backs down, the problem may be resolved. However, when neither dog is willing to give up the dominant position fighting will usually result.

A common owner error is the desire to make life "fair". This often results in owners allowing subordinate dogs or ones who would normally have less interest to have access to resources, such as attention, treats, toys, or entry into territory that they would not normally try to obtain in the presence of the other dog, if they were not encouraged by their owners. Often the subordinate dog does not behave in a manner that would challenge the dominant when no one is around to "protect" it. If you encourage or come to the aid of the subordinate dog rather than discourage its behavior, you may increase the chances that the more dominant dog will challenge. If you then punish the dominant dog for aggression, the

subordinate dog might be encouraged to repeat the behavior. In addition, the use of any discipline or punishment techniques might lead to increased anxiety when the dogs get close to each other. In many households, there is no fighting when the owners are gone, which is likely an indication that the owners interactions are in some way encouraging the dogs to interact in a way that they would not when the owners are away. Whether the owner's actions are in some way encouraging the behaviors that lead to fights, or whether the owners are responding inappropriately to one or both of the pet's actions needs to be determined.

Another potential problem may occur when the relationship between individuals is context dependent. In other words, one dog is more motivated to receive owner attention while the other defers. However, the dog more motivated for attention may be the one that is less motivated by food and will therefore avoid and defer during feeding. .

Before treatment can begin it must be determined if either dog is using appropriate canine social communication skills. If one dog is not responding appropriately to the deference and appeasing signals of the other dog, is attacking over low level threats or does not allow any approach by the other dog without displaying aggression, then fear or anxiety are likely factors. Anxious dogs will often respond defensively and are not able to accurately assess the situation and choose an appropriate response.

How can I treat this problem?

Although the dominance relationship between the two dogs must be dealt with, the first step is for the owner to gain complete control over both dogs. This should be accomplished through a) verbal control with reward based training so that each dog can settle on command both in position (sit/focus) and on location (crate / mat).- see our handout on settle exercises) b) a learn to earn program in which the owner controls access to all resources and all social interactions and insures calm and deferent behavior before these are received (see our learn to earn handout) c) a daily routine that provides sufficient training, play and exercise sessions alternating with rest times where the dog can nap or play with its own toys (preferably in its own bed area) and d) physical control and safety, preferably with a leash and head halter. The learn to earn program serves to eliminate all attention on demand. If your dogs earn that all rewards are provided only when you choose, and will likely reduce or eliminate some of those situations where challenges might occur. The leash and head halter provides a means of effective control as well as a way of separating the dogs if needed. With control of the head and mouth, aggressive threats can be curtailed and either dog can be placed in a subordinate posture, by pulling up on the leash, closing the mouth, looking the dog in the eyes, or pulling the head sideways so that the dog's gaze is averted. Muzzles might be another alternative to keep people and dogs safe.

All situations in which aggression might arise must be identified and entirely avoided or prevented until such time as the owner has safe control for introduction. Identifying all stimuli for aggression is also essential in making a diagnosis, determining the prognosis and developing a treatment plan that deals with the specifics of the household.

Once you have gained sufficient control over both dogs, and have identified the more dominant, you will need to deal with the circumstances that might elicit aggression. First determine whether the responses of one or both dogs are appropriate or inappropriate. In those cases where the behavior appears to be related to dominance hierarchal challenges, the approach would be to support the dog that is likely to be more dominant in the relationship by discouraging challenges and approaches of the more subordinate that might progress to aggression. With the assistance of a behaviorist and a detailed description and/or video of the events it should be possible to determine which dog is more able to take or maintain control. One option is to support the dog that has been in the household the longest, usually this is the oldest dog. Another is to identify the dominant dog based on how the dogs interact, in other words, who threatens and who defers. In some cases the dog that is chosen should be the maturing younger, more physically capable dog, if this dog has been trying to assume control. Care must be exercised to watch for dogs who try to take control but do not allow other dogs any status or are inconsistent in the application of threats (i.e. the bully). Dogs that are unable to read social communication signals appropriately (such as those that are older, unhealthy or infirm) also should not be chosen as the leader dog.

Ideally the program should be passive and the dogs should be encouraged and reinforced for proper responses and problem free interactions. For example, if the more dominant dog approaches or challenges the subordinate dog and the subordinate dog assumes a subordinate posture, the owners are not to intervene as long as the dominant dog ceases. However, if dogs were able to work things out on their own, you would not likely be reviewing this handout. Therefore every situation in which the dogs might become aggressive should be prevented or placed under owner control and supervision. Greetings should be low key, and both dogs should be ignored. If greetings are a problem keep the dogs separate when you are out. Food, treats, toys, affection and resting places, can all be sources of competition and should be entirely under owner control. Movement through tight spaces must be avoided or controlled so that the more dominant dog gains preferential access.

Although the goal is to prevent problems so that there is no further injury or occurrence, you will also want to work toward improving those situations in which the aggression might arise. If the specific times, places and stimuli that lead to aggression are predictable it should be possible to set up situations to teach the subordinate to defer (with the aid of verbal commands, such as down-settle or go to your mat, and a leash and head halter to insure safe, immediate and effective control). Often your actions are inadvertently encouraging the subordinate dog to challenge to the more dominant. This might include providing attention, affection, play, food, toys or even a privileged sleeping location by your side. In principle, if any of these lead to problems, they should be provided to the more dominant dog first and the subordinate encouraged to wait its turn. Once you are finished the more dominant dog can be asked to do a down-settle while you provide similar resources to the more subordinate. If the dominant dog begins to display threats or anxiety while you attend to the more subordinate, you will need to teach the dominant dog to settle when interacting with the subordinate (desensitize, counter-condition). This might require two people and the use of a leash and head halter to insure success. In the interim, removing the more dominant from the sight and sounds of the interaction might be best (e.g. outside, crating).

If problems arise during walks, it usually best to start with two people walking the dogs (each person controls one dog) and not to allow them to forge in front of each other. Both should learn to walk on loose leash with no anxiety by the owner's side. During feeding or when giving treats or toys keep the dogs at a distance, far enough apart that they do not show aggression. Slowly the dishes, toys or treats can be moved closer together as long as the dogs remain focused on their own items. Dogs can be taught to settle when they are in the same with a down/stay and rewards. However, until they can be effectively trained another alternative is to attach their leashes to large pieces of furniture.

Social play should be allowed to continue as long as it does not escalate to aggression. If aggression is a possibility during play (or any other social interaction), you must be able to identify the signals and actions that indicate that aggression is likely to emerge so that you can stop the interaction. Generally starting with the subordinate, get each dog to settle before allowing further interactions to continue. This can be accomplished by using a settle command (with head halter if needed). However, if the more dominant increases its attacks on the subordinate as you begin to intervene, you may have to focus on getting the dominant to settle first (giving it preferential attention) or you may need to people to break up the play. During daily interactions you should be cognizant of what interactions could possible lead to fights or challenges. In any situations where problems might arise, give priority to the dominant dog, to approach; receive food or owner attention and affection. If you are petting the dominant dog and the subordinate dog approaches, make it wait. If the dogs are likely to fight when you are away or at homecomings, separate the dogs whenever you are not available to supervise. Basket muzzles could be left on each dog to increase safety while the dogs are together.

What if neither dog will defer or submit?

On some occasions, neither dog is willing to be subordinate or there is a shift in hierarchy from situation to situation. You will need to supervise the dogs in these situations and be able to recognize canine body language and low-level threats such as eye contact, snarls or low growls. Keep records of threats, attacks, or tension-producing situations. Try and determine if the problem is related to a specific resource such as feeding or a play toy or to a specific event such as greeting so that steps can be taken to separate the dogs at these times to avoid any possibility of recurrence. An owner must have excellent control over both dogs in order to succeed. To facilitate treatment, decrease the chances of injuries and increase owner control, a remote leash and head halter can be left attached to one or both dogs when they are together (under the owner's supervision). In other cases, basket muzzles may provide more safety and allow owners to work with the dogs.

If there are abnormal responses to social signaling then these cases may have a very poor prognosis and be most likely to escalate to serious injury. This might be the case if the dog displaying dominant signals continues to attack in the face of appropriate deference and subordinate behavior, or if the more subordinate dog displays excessively fearful or defensive aggression when confronted by normal social or dominance signaling from another dog. These cases require close and careful supervision and may have a much poorer prognosis. Drug therapy might help to control anxiety and impulsivity.

If aggression is redirected or caused by another anxiety producing situation such as separation anxiety or social changes within the home, those need to be addressed as well or the problem will not change.

Can social aggression always be corrected?

Remember that although dogs live in groups, in a free ranging situation they would choose which group to live in and leave those where they are not welcome. At times aggression may persist despite owner control and intervention. In those cases alternate living arrangements for one of the animals may need to be made.



This client information sheet is based on material written by Debra Horwitz, DVM, Diplomate ACVB & Gary Landsberg, DVM, Diplomate ACVB

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