

## **Fear of Fireworks**

Firework displays are common seasonal celebrations and the time of year may vary from country to country. In the USA firework displays are in July, while in the UK they are in November. People consider these displays predictable because they happen every year, but dogs are often surprised and fearful of these seemingly random explosions of sound and light in the sky.

### **Diagnosis and Clinical Signs**

Many dogs are fearful and anxious when exposed to seasonal fireworks: a dog's response may range from a momentary freeze and orientation to the sound and then recovery, to extreme panic characterized by bolting or escape attempts. Like other displays of anxiety and fear, signs may include: pacing, panting, drooling, escape attempts, attention seeking or refuge seeking. Attention-seeking behaviors may include vocalization, pawing, nuzzling or climbing on people. Escape attempts involve hiding under or behind furniture, and seeking safety in a basement or bathroom. Some dogs will seek refuge in the home and may be hesitant go outside, while others may seek refuge outside and resist coming inside. During fireworks season, some dogs will go to the veterinarian because they've been soiling the house yet the underlying motivation is actually a fear of going outdoors! Dogs with a fear of fireworks may also show a fear of noises associated with thunderstorms.

### **Prevention and Management**

Protecting our dogs from overwhelming, fear-evoking experiences is beneficial. When initially exposed to fireworks, preventative measures are prudent. Avoid exposing your dog to fireworks and limit direct exposures: at a minimum, your dog should be on a leash but still better, your dog should be at a safe distance or even left at home. Once a dog is sensitized and fearful of fireworks, preventative measures are useful but may not help diminish responses.

### **Treatment**

#### *Behavior modification*

Like all behavior modification exposure programs, controlling the intensity of the stimulus (the fireworks) is necessary and often the most challenging part. While it often isn't possible to expose a fearful dog to only "little fireworks," control of other factors can help achieve this goal. Distance from the fireworks display can make the display less intimidating, as would keeping the dog indoors. Muffling the sound by using cotton balls in the dog's ears may help, or using specifically designed ear protection (Mutt Muffs®). Even covering the dog's head with a towel reduces noise stimulus. You can reduce visual stimulus by seeking safe haven in a basement, covering the windows or covering the dog's face with a Calming Cap®, which reduces but does not completely restrict the dog's ability to see. An Anxiety Wrap® may provide comfort and reduce anxiety. Music may be played to disguise the bursts of noise: consider loud music with a regular beat to obscure the noises associated with fireworks.

#### *Classical counter conditioning*

Creating a positive association with a fireworks display can be done if the dog's anxiety isn't extreme. The dog can be given high-value food rewards (canned food or peanut butter), motivated to play with toys, solve food puzzle toys, or participate in fun animated tricks. The goal is for the dog to learn that fireworks predict highly pleasant rewards. This creates an animated, lively response to fireworks and may be more useful for the dog who attention seeks or paces than for dogs who retreat or hide during fireworks.

#### *Teaching a desirable coping response*

The appropriate response for a dog facing a fear-evoking event is to retreat to a safe place until the event ceases. This strategy is especially useful for dogs that naturally seek escape or retreat options. Provision of a safe retreat area will give these dog's security and confidence. Safe havens can include a crate, under a bed, in a closet, or in the basement: selecting the location is up to the dog! Additional blankets to muffle the sound and a pheromone diffuser will provide natural motivation for the dog to seek this safe location. Being able to cope when the world becomes overwhelming is a life skill essential for both people and dogs! Remember, hiding is

not a sign of problems if the dog quickly returns to a normal behavioral pattern when the fireworks are over and becomes relaxed again.

#### *Pharmacological and pheromone therapy interventions*

Use of certain medications may reduce the fear of fireworks by reducing the dog's reactivity. At low doses, many medications promote a feeling of well being and support a positive learning experience; at higher doses an amnesia effect may be helpful so the dog's future learning is not influenced by a traumatic experience. For dogs with milder anxiety or specific fear only to fireworks, short-term anxiolytic (anti-anxiety) drugs such as [benzodiazepines](#) are most useful. For dogs with severe reactivity to storms, noises and fireworks, treatment with medications such as [fluoxetine](#) or [clomipramine](#) daily beginning months before the firework displays may be beneficial. Dog Appeasing Pheromones (D.A.P.®) may reduce situational anxiety.

#### **Expected Outcome**

Subsequent uncontrolled exposures to fireworks often worsen a dog's anxiety with each experience: for some dogs, this exposure may be once or twice a year while other dogs may be exposed to fireworks for a week or more of overzealous seasonal displays. Particularly intense or overwhelming events will speed this learning process, and a dog's anxiety during firework displays may worsen rapidly. Finding the right combination of environmental changes and medications can help diminish the responses for dogs.

### **Thunderstorms**

Reactions to thunderstorms are not uncommon: loud noises from overhead are difficult to orient to. While many dogs get accustomed to storms (habituation), others may become more sensitive, resulting in additional fear with each exposure. Even a single frightening event during a storm may contribute to fear of thunderstorms. The degree of anxiety is based on a dog's perception of a threat. When a dog's response to thunderstorms is extreme, it is considered a phobia.

#### **Diagnosis and Clinical Signs**

Dogs may show a variety of anxiety signs during or before a thunderstorm: panting, trembling, hiding, pacing, vocalizing, and being destructive. Diagnosis is clear when the signs occur consistently during a storm. However, some dogs are more anxious during thunderstorms when they are alone, and thunderstorm and noise fears are common in dogs with separation anxiety.

#### **Management**

Dogs may try to hide to avoid a thunderstorm; this is a normal response. If your dog seems agitated or restless, you may be able to assist him in securing a safe haven and help him relax during storms. This safe location should be readily available, especially when no one is home. You can try to limit exposure to the overwhelming and fear-evoking elements of a storm by closing doors and windows, and using white noise or music to block out the sounds. You can also redirect the dog to alternative and anxiety-incompatible behaviors such as obedience exercises, fun activities (agility or food puzzle toys) or relaxation responses. Each dog and family may need to implement different strategies based on their dog's unique response. If your dog shows little or no response to storms, you need not do anything.

#### **Pharmacological, Pheromone therapy and Botanical Interventions**

For very anxious animals, it is essential to reduce anxiety during a storm to prevent worsening of the anxiety and allow management and treatment options to be successful. Select interventions based upon the severity of the anxiety and the severity of the storms. Dogs with severe anxiety may benefit from long-term management with anxiolytic medications (such as [fluoxetine](#) or [clomipramine](#)) plus rapidly-acting anxiolytics (benzodiazepines) that may be given immediately prior to or even during a storm. Intermediate cases may require only rapidly-acting anxiolytics (such as [alprazolam](#) or [diazepam](#)) that can also be given immediately prior to or during a storm. Pheromone intervention (D.A.P.® Dog Appeasing Pheromone), which can be used alone or combined with another intervention, can be used with a continuous use collar or

diffuser or the spray can be used as an immediate intervention. Nutraceutical or natural products may also be beneficial, especially for dogs with mild anxiety.

### **Treatment**

Recordings of thunderstorm sounds may be played and you can associate them with pleasant outcomes. Programs such as Sounds Scary® that offer gradual and positive exposure to noises in a non-threatening manner (systematic desensitization and counter conditioning) are useful to treat and prevent progression of noise-related fears. Rehearsing a safe haven routine or redirection strategies while listening to recordings of storm noises will prepare your dog for more imposing threats. Don't panic or show your own anxiety during storms to avoid making your dog's anxiety worse. You may reassure him to encourage relaxation or direct him with obedience or trick cues. If your dog's anxiety is minimal and he startles but recovers quickly, it may be appropriate for you to ignore him and observe his natural ability to adapt to storms (habituation). Ignoring severe anxiety or extreme displays when the dog is not likely to adapt naturally is not necessary, and may be confusing and could contribute to your dog's anxiety. If his anxiety persists, seems extreme or your pet is at risk for self injury, be sure to consult your veterinarian.