## The Physiological & Psychological Effects of Fireworks on Animals

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Our dogs (and other animals), by design, have at least **4 times** the hearing ability that humans do. The decibel level of sound that fireworks inflict on our family pets and wildlife can be compared to firing a gun off next to your ear without protective gear. This decibel level causes an assault to the central nervous system and neurology of the animal's brain that is similar to sonic booms that are used to disorient and make humans sick and disable enemies when used in warfare.

This assault on the animal's neurology and central nervous system causes a biochemical response in the body which releases a flood of arousal, excitement, stress, fear and anxiety hormones: testosterone, adrenaline and cortisol.

The surge of this cocktail of hormones increases blood pressure, heart and respiratory rates triggering one or a combination of the following behaviours: flight, fight, freeze or submit. **In all cases** the animal experiences **traumatic stress injury** to the neurology of the brain and central nervous system in the moment that the sound occurs resulting in the following behaviours;

Flight: desperately trying to flee the noise source

Fight: standing their ground and barking towards the noise source

Freeze: going into shock and unable to move

Submit: collapsing to the ground

In extreme cases some dogs and other animals may suffer seizures or heart attacks. The specific behavioural response depends on a combination of the individual animal's genetics, environmental influences and life experience, **but all suffer traumatic stress injury** which can manifest as mild to severe behavioural problems and loss of appetite.

Some people claim that their animal does not show any of these signs. They are mistaken and those individual animals are simply internalizing the stress which can have devastating effects on their physiology and psychology in the form of physical disease and post traumatic stress disorders. These effects are accumulative and compounded with each subsequent firework event.

There is a need to educate people about the devastating and damaging effects including injury, suffering and death which the noise fireworks cause to our innocent pets and wildlife.

The intention of this article is not to stop firework enthusiasts from having fun. The intention of this article is to inform people of the unnecessary suffering, injury and death of our family pets and wildlife so that people can make a more humane choice in the way they choose to celebrate.

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