



# REPORT ON DOG BITE-RELATED FATALITIES THAT OCCURRED IN 2021

NATIONAL CANINE RESEARCH COUNCIL

Dog bite-related fatalities (DBRF) are the most emotionally rending of injurious dog bite injuries: where a dog inflicts an injury that kills a human being.

Throughout the 21st century, National Canine Research Council (NCRC) has conducted comprehensive investigations into each DBRF. No other organization, whether public or private, apart from law enforcement, has matched the systematic rigor demonstrated by NCRC.

In 2021, there were 3.4 million deaths in the United States, according to the Centers for Disease Control and Prevention (CDC). 312,000 of those deaths were attributed to external causes: accidents, interpersonal violence, self-harm, falls, weather, etc. (Source: [wonder.cdc.gov](https://wonder.cdc.gov))

NCRC has attributed 51 of the 312,000 deaths caused by external factors to a handful of the 83 million dogs coexisting with us 335 million humans.

Clearly, DBRFs are extremely, extremely rare. Nevertheless, based upon systematic, multi-sourced investigation of incidents, we might divide victims by age/ability to manage an interaction with a dog; measure household stability; divide the incidents according to where they occurred in relation to the dog's territory, or whether the victim was an owner, a household member or otherwise; or identify how many incidents involved dogs that had been poorly supervised or abused or neglected.

Our previously published investigations have shown that some owners knowingly subjected their dogs to tremendous stress, while others were unaware of the stressful conditions in their households. Additionally, a small number of dog owners provided a stable environment for their dog(s). Some households struggled under a lot of stress, which can put pressure on both animals and humans, while other households did not.

These categories do not predict the behavior of an individual dog, however kept, or change what we already know about living companionably with dogs.

In the most comprehensive in-depth study of DBRFs ever conducted, [Patronek et al \(2013\)](#) identified seven factors that they considered potentially preventable: that is,





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within the control of dog owners. Four or more of those factors were identified as co-occurring in more than 80% of the incidents in the casefile. Considering how vanishingly rare DBRFs are, the authors resisted the temptation to make small numbers work too hard by offering predictions about millions of individual dogs based on such a tiny sampling. The factors identified by these authors no doubt co-occur in millions of other homes, but no one is ever injured. Nevertheless, their finding reinforces the widely accepted principles of responsible and humane keeping of dogs and reminds us of practices that benefit both people and dogs, strengthening the human-canine bond. [Read the 2015 updated report](#)

Some individuals choose to disregard these robust findings; to neglect the discoveries of canine genetics that indicate the absence of breed-based variations in agonistic (“aggressive”) response, [Morrill et al \(2022\)](#); and to dismiss the [well-documented](#) unreliability of trying to name the breeds in a dog just by looking at it. They ignore robust scientific findings that debunk the notion of predicting an individual dog's behavior based on breed or appearance. They may dismiss compelling evidence of multiple factors co-occurring in DBRFs, relying instead on a predetermined agenda that lacks scientific support. They blame something they already don't like.

Nothing that occurred in 2021 has changed our recommendations for the humane care, custody, and control of dogs. The constellation of potentially preventable factors co-occurring in the 2021 casefile are the same as those already reliably established, and that can be detected in other, less severe dog bite-related incidents.

Based on our investigations, our advocacy of breed-neutral responsible pet ownership policies and practices as the safest and most humane remains as before and is here reaffirmed.

