# Hot dogs - What triggers fan the flames of heat related illness for UK dogs?

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### **Objectives**

Current heat related illness awareness campaigns focus on hot cars as the dominant trigger, but other causes could be more important. This study aimed to explore common triggers for heat related illness in dogs under primary veterinary care in the UK.

#### Methods

Dogs with heat related illness events during 2016 were identified from VetCompass firstopinion clinical records. Inciting events and mortality data were extracted to compare common triggers. Logistic regression analysis explored fatality risk.

## Results

From 905,543 dogs 1222 cases were identified, some with multiple events. Overall, 30.2% of events had no specific cause reported. Of the remaining 879 events, the most common triggers were exercise 74.2%, exposure to a hot outdoor environment 13.0%, confinement in a hot car 5.2%, treatment by a veterinarian or groomer 4.6% and confinement in a hot building 3.1%. The 2016 fatality rate of heat related illness cases was 14.2%. Of the known causes, only cases following entrapment in a hot building had increased odds of death compared to cases following exercise (odds ratio 6.6, 95% CI 2.6-16.6).

## **Statement (conclusions)**

This study highlights exercise as the most common cause of heat related illness in UK dogs, accounting for fourteen times as many cases as hot cars; entrapment in a hot building had six times the odds of death. These findings suggest that we need to rethink heat related illness education strategies, veterinarians should alert owners to the hazards of exercising dogs in hot weather or leaving them in hot buildings in addition to annual "dogs die in hot cars" campaigns.