
**Abstract**

We have explored the validity of urinary cortisol/creatinine ratios (C/C) and behavioural measures as indicators of acute psychological stress in the domestic dog, by monitoring 1 year old male Labrador Retrievers (N=31) prior to and following their introduction to novel kennels in a training establishment. Baseline early morning urine samples were taken in the dogs' original homes and then urine samples and remote recordings of behaviour were taken for ten consecutive days after transfer to the kennels. The impact of this potential stressor was manipulated by previously habituating half of the subjects to confinement in a kennel. We hypothesised that stress levels would increase upon introduction to the training establishment, but that the response would be mitigated by kennel habituation. C/C increased in all dogs when they entered the training establishment, this increase was significantly higher in the non-habituated group, and in this group C/C remained above baseline even 12 weeks after transfer. Despite the homogeneity of the subjects, the behaviour measured showed very little correlation to the C/C ratios, and the changes in behaviour that were observed, such as decreases in whining and time spent at the front of the kennel, could equally be attributed to dogs learning the most effective strategies for gaining human attention in the kennels as to attenuation of stress. We conclude that urinary C/C is a valuable indicator of acute stress and hence welfare status in dogs, but that behavioural measures need to be interpreted with caution due to individuality in coping strategies.

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