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# Predicting Aggressive Behaviour: Which Factors Influence Biting and What is the Use of Temperament Tests?

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## Introduction

Dogs that have bitten are a common problem in behavioural counselling. Knowledge of the probability of an individual dog reacting aggressively, and which factors might promote or release a bite, are helpful for prevention, diagnosis and therapy rationale.

## Materials and Methods

Over 16 years, 830 adult dogs of different breeds were tested in Hamburg, Germany, using a validated behavioural test for aggression (Schoening, 2006; NMEL, 2017). Dogs were scored between 1 (no aggression) and 6 (offensive biting without preceding threats). Breed, sex, bite history, medical history, obedience level, and negative-based or positive-based training were also recorded.

## Results

Scores of 2 or higher were significantly associated with a history of biting ( $p=0.001$ ). Sex of the dog and obedience level also influenced aggression scores

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and biting history. Intact males were more likely to bite other dogs ( $p=0.001$ ). A history of biting was not significantly correlated to any particular means of training, but a poor obedience score was correlated with higher aggression scores ( $p<0.001$ ). Owners using physical punishment had dogs with low obedience levels ( $p<0.001$ ). There was a significant correlation between having bitten and a medical condition ( $p=0.005$ ). The most frequent medical conditions were orthopaedic problems.

## Discussion

These results show that formal and standardised tests can give some information on the probability of biting, and may be helpful in providing a prognosis and deciding on a therapy rationale. Factors such as obedience level and training method must be considered as well, and special emphasis should be placed on the medical condition of the dog.

## References

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