

the CANINE CORNER

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Anne Carter, a Senior Lecturer at Nottingham Trent University, has a straightforward message for dog owners: Respect the Neck.

Carter and her collaborative research team which has included the University of Nottingham have published a study to demonstrate the force that is applied to a dog's neck when a lead is attached to its collar. Carter, a pet parent to an English Pointer, a German Shorthaired Pointer, a Pointer x Bracco and a "Heinz 57" mixed breed, says that it made intuitive sense not to pull on the sensitive structure of a dog's neck and that her canine chiropractor has commented on the number of dogs which present with neck strain problems.

"There was much research on horses about force exerted by bridles and saddles, yet very little for the dog world."

Even she was surprised by the pressures recorded during the research.

The team tested eight collar types looking at a range of collar material and widths. The dog's neck was simulated by a tube fitted with sensors placed underneath the collar. A lead fitted with a load

sensor recorded the force applied through the lead. A force of 40N was used to represent a light pull on the lead, a force of 70N was used to replicate a strong pull on the lead, and a lead jerk was a

force of roughly 141N.

The pressure exerted on the neck model ranged from a low of 83kPa at 40N (light pull on the lead) to a high of 832kPa at 70N (strong lead pull).

To put some perspective on these results, in horses, pressures above 30kPa underneath a saddle have been linked to back pain. Tourniquets applied to stop blood loss in a human arm use 33.3kPa of pressure. 230kPa is sufficient pressure on a human neck to crush the windpipe.

Based on these findings, "there is no such thing as a safe collar. Use the collar as a fashion accessory and as a place to keep the dog's required registration tags."

"Use a harness for running and walking and, ideally, combine this with training to ensure loose-lead walking."

"Training alone doesn't remove the risk of walking a dog with the lead attached to the collar. Dogs can bolt to chase cats or squirrels and humans will respond with jerks on the leash when responding to sudden events."

Carter, who is an avid Canicross (cross country running with dogs) participant, says that her next goal is to research dog harnesses. "Even from my observations of Canicross teams, it makes sense that a good harness will preserve the range of motion in the shoulder joint. While I would love to recommend certain types of harness, as a scientist, I can't do this until there is research to back up my recommendations."

Canine collars: an investigation of collar type and the forces applied to a simulated neck model has been published in *Vet Record* by the British Veterinary Association.

Due to the UK's COVID-19 shutdown, Dr Carter was unable to retrieve photos of the testing equipment from her office in time for this publication. If you would like to see a photo of the testing apparatus, please email me at kathleen@balanceddog.co.nz 🐾

