

New natural supplement relieves canine arthritis

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Arthritis pain in dogs can be relieved, with no side effects, by a new product based on medicinal plants and dietary supplements that was developed at the University of Montreal's Faculty of Veterinary Medicine. "While acupuncture and electrical stimulation are two approaches that have been shown to have positive effects on dogs, until now a few studies have investigated a plant-based approach to therapy," explained Professor Éric Troncy, senior author of the study. His findings were published in *Research in Veterinary Science*.

Troncy and his team worked with 32 [dogs](#) (and their owners!) who had been diagnosed with arthritis by X-ray and orthopaedic exam, and who all weighed more than 20 kilograms. By drawing on existing rodent studies and working with Pierre Haddad of the university's Department of Pharmacology, Troncy developed two formulas for his trial. These formulas are not currently commercially available.

The first formula, composed of curcumin, devil's claw, black current, Indian frankincense (Salai), willow bark, pineapple bromelaine and camomile, was developed to treat arthritis-induced inflammation. The second included the same ingredients, plus [dietary supplements](#) such as omega 3, chondroitin sulfate and glutamine, and was formulated in the hope that it would promote the regeneration of articulations.

Half the dogs received the first formula for four weeks and then the second formula for another four weeks. The other half, acting as the control, received a placebo. The outcomes were tested using three

methods. Firstly, the dogs were filmed as they walked at a consistent speed over a special platform that captures the strength of each paw. Secondly, a special electronic collar recorded the dogs' daily activities. And finally, the owners were asked to provide their own evaluations of their dog's behaviour.

The researchers were able to identify an improvement by the fourth week of the trial.

"After the eight week course, on average, the strength of the dogs receiving treatment had improved to the equivalent of a kilo of extra strength per paw, which is moreover. None of these dogs saw their health decline, unlike 35.8% of the dogs who were given the placebo," said Maxim Moreau, who was first author of the study.

The improvements were also reflected in the dogs' daily lives. The collars revealed that the dogs receiving treatment maintained their physical activity, and in fact the group average increased from six hours of daily activity to eight. Meanwhile, the dogs receiving the placebo were progressively less active. "In some cases, we recorded the dogs to ensure that the collar was recording actual physical activity rather than movements such as scratching," Troncy explained.

Nonetheless, the ratings from the owners were more mixed. "This third evaluation was more subjective and the contrast between the test group and the control group less stark," Troncy said. "We suspect that the owner may have forgotten what the animal's behaviour was like before it developed arthritis."

The findings raise the possibility of offering a new form of treatment to human beings. "The model of evaluation that we have used is the best for predicting the efficacy of anti-arthritis treatments. We can therefore consider that clinical trials on humans would have a good chance of

having positive outcomes," Troncy said.

Provided by University of Montreal

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