

## Abstract

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### **A multicenter study of the effect of dietary supplementation with fish oil omega-3 fatty acids on carprofen dosage in dogs with osteoarthritis**

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**Objective**—To determine the effects of feeding a diet supplemented with fish oil omega-3 fatty acids on carprofen dosage in dogs with osteoarthritis.

**Design**—Randomized, controlled, multisite clinical trial.

**Animals**—131 client-owned dogs with stable chronic osteoarthritis examined at 33 privately owned veterinary hospitals in the United States.

**Procedures**—In all dogs, the dosage of carprofen was standardized over a 3-week period to approximately 4.4 mg/kg/d (2 mg/lb/d), PO. Dogs were then randomly assigned to receive a food supplemented with fish oil omega-3 fatty acids or a control food with low omega-3 fatty acid content, and 3, 6, 9, and 12 weeks later, investigators made decisions regarding increasing or decreasing the carprofen dosage on the basis of investigator assessments of 5 clinical signs and owner assessments of 15 signs.

**Results**—Linear regression analysis indicated that over the 12-week study period, carprofen dosage decreased significantly faster among dogs fed the supplemented diet than among dogs fed the control diet. The distribution of changes in carprofen dosage for dogs in the control group was significantly different from the distribution of changes in carprofen dosage for dogs in the test group.

**Conclusions and Clinical Relevance**—Results suggested that in dogs with chronic osteoarthritis receiving carprofen because of signs of pain, feeding a diet supplemented with fish oil omega-3 fatty acids may allow for a reduction in carprofen dosage.

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