

## L-Lysine, Feline Herpesvirus, & Shelters

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Feline herpesvirus (FHV) spreads rapidly by direct contact and fomite transmission. Cats in animal shelters are highly susceptible to infection with FHV because of stress and close proximity to other cats. One of several techniques used by shelters to prevent FHV-related upper respiratory infections (URIs) is the empirical treatment of cats with the amino acid supplement l-lysine. l-lysine is believed to work by competing with the virus for arginine, an amino acid necessary for FHV replication. Trials using l-lysine have yielded mixed results. In this study, a clinical trial of cats admitted to a shelter was performed to assess the efficacy of l-lysine supplementation on the development of URI. Healthy cats admitted to the shelter were randomly assigned to receive no treatment (n = 147) or daily supplementation with 250 mg (kittens < 5 months of age) or 500 mg (kittens and cats > 5 months of age) of l-lysine (n = 144). Each cat was assessed daily for signs of URI by veterinary assistants blinded to study group. Healthy cats continued to receive l-lysine until adoption. Cats that developed signs of URI were treated by using the shelter's standard protocol, and their l-lysine supplement was discontinued. The study found no differences between the 2 groups in terms of percentage of cats diagnosed with URI; percentage of cats treated for URI requiring more than 1 round of the standard treatment protocol; number of healthy days before diagnosis of URI; or, for cats that did not develop URI, number of healthy days at the shelter. The results suggested that l-lysine supplementation may not be effective in preventing URI in shelter situations.

**COMMENTARY:** The results of this study are disappointing for those of us desiring to do more to decrease the frequency and severity of FHV infection. The results of infection for shelter cats, in particular, can be devastating. While in vitro studies have been promising, anecdotal reports have varied in terms of how clinically useful this supplement is. There have also been some concerns about the potential for arginine depletion with long-term use. Still, it remains to be

seen whether l-lysine may be beneficial for cats in less intensely stressful environments, and further well-controlled studies would be useful. It would also have been interesting to see whether continuing supplementation after cats developed signs of URI would have affected length and severity of illness.

***SHORT COMMUNICATION: Oral supplementation with L-lysine did not prevent upper respiratory infection in a shelter population of cats. Rees TM, Lubinski JL.***

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