

TAKING ON TOUGH QUESTIONS



AMERICAN
HEARTWORM
SOCIETY™
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FAQs ABOUT HEARTWORM DIAGNOSIS, PREVENTION AND MANAGEMENT

Q Dear AHS: I know the AHS recommends year-round heartworm prevention for pets. However, I practice in the Upper Midwest where we have very cold winters. How can I justify giving heartworm prevention when there isn't a mosquito in sight? – Dr. M.



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THE SHORT ANSWER

It is more difficult to predict when you'll see either the first OR the last mosquito of the year, and that makes "seasonal" prevention challenging. Improved compliance and the ability to control additional parasites also help justify year-round prevention.

Dear Dr. M.,

This is a logical question heard from both practitioners and pet owners. Heartworms are spread by mosquitoes, so why would you recommend year-round heartworm prevention if you live in an area with cold, snowy winters? Here are three important points to consider:

1. Urban "heat islands" can extend the heartworm transmission season. The length of the heartworm transmission season is dependent on having levels of heat and humidity that can support a viable mosquito population and incubation of heartworm larvae to the infective stage in the mosquito. While climatic data suggest there are time periods when the temperatures are too cold to support heartworm transmission, these data fail to account for the presence of microenvironments called **urban heat islands**.

Census data tell us that >82 percent of the U.S. population live in cities and urban areas. The urban heat island effect occurs when daytime heat is retained in buildings and parking lots, creating protected spaces where mosquito vectors can thrive well past the months historically referred to as heartworm "season." With weather patterns being hard to predict, maintaining pets on preventives eliminates guesswork and ensures pets won't inadvertently be exposed.

2. Broad-spectrum heartworm preventives protect pets against multiple parasites. Depending on the product your clients are using, heartworm preventives may **protect their pets from intestinal parasites as well as external parasites** such as fleas and ticks. Studies have shown that the prevalence of roundworms and whipworms peaks during the winter months. Meanwhile, fleas live indoors as well as outdoors, so the need to protect pets doesn't disappear when the temperature drops. Some tick species, such as *Ixodes scapularis*, actually prefer cooler conditions to balmier

ones and can survive near-freezing temperatures. Arbitrarily discontinuing the pet's preventive because the summer has passed can put pets at risk for other parasitic diseases.

3. Avoiding on-again, off-again preventive use ensures pets are protected when they need it. Stopping and starting heartworm preventives can be penny-wise and pound-foolish. The cost savings incurred by discontinuing preventive administration during cold-weather months are eclipsed by the cost of treatment, which typically run

\$1,000 or more. Meanwhile, the impact of heartworm disease on a pet's health can be life altering and life-long.

Year-round prevention saves lives.
Heartworm infection can be fatal. Treatment is sometimes difficult for dogs and there are **zero** heartworm treatments for cats.
No treatment for me
Treatment is NO FUN
There's **no season for heartworms**
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Hear that whine?
Heartworms are spread by mosquitoes and just **1** female mosquito can lay up to **500** eggs in her lifetime. The more mosquitoes, the greater the chances for heartworm to spread.

Don't take a timeout on prevention.
Many heartworm preventives protect pets from other parasites besides heartworms that threaten pets **year-round**. Meanwhile, urban spaces provide "heat islands" of warmth that shelter active mosquitoes.

The seasons are changing.
According to the Journal Geophysical Research Letters, summers are **hotter and longer**, while winter, spring and fall are shorter. The result? More days when mosquitoes are active and transmitting heartworms.