

**HOLT
VETERINARY
CLINIC**

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HOW TO PREVENT MOSQUITO TRANSMITTED HEARTWORM DISEASE IN YOUR DOG

A severe mosquito season is a nuisance to humans, but especially dangerous for dogs. Mosquitoes transmit canine heartworm disease, a potentially fatal infection for dogs in the United States.

A wet spring creates a dramatic increase in the mosquito population. As a result, large numbers of eggs are laid. With enough rain, many of those eggs hatch and result in yet another severe mosquito season.

Dr. Dan Brown, regional director of the American Mosquito Control Association (AMCA) in the Midwest, estimates that 90 to 95% of mosquito eggs laid during a given year will hatch if they receive "normal" rainfall the following year. Even if conditions are less than ideal, as many as 50 to 60% of the eggs will still be viable. "Mosquito eggs are like time bombs just waiting for the right conditions to come along to hatch," he says.

"The bad news for dog owners is that the more mosquitoes present, the higher the chance of transmission of heartworm disease," says Judy Hansen, president of the AMCA. "There's a definite correlation, particularly in areas where many different species transmit the disease. After all, it only takes one bite from an infected mosquito to pass the disease along to an unprotected dog."

To help reduce the risk of heartworm disease, dog owners should eliminate any bodies of standing water around the house and yard. Many of the species – at least 70% – that transmit canine heartworm disease are "container breeders" that reproduce in small bodies of standing water, including water accumulated in empty cans, hubcaps, tires, barbeque grills, and flowerpots.

Although mosquito control can help reduce the risk of a dog contracting canine heartworm disease, Hansen emphasized that to safeguard pets, "dog owners should take steps to prevent heartworm disease."

The cycle of transmission begins when a mosquito takes in microfilariae, the first-stage larvae heartworms, when it feeds on an infected

dog. Over the next 2 to 3 weeks, these larvae develop into the infective form in the mosquito, then move from the mosquito to another dog when the mosquito feeds again.

Once a dog has been infected, heartworm larvae migrate for several months through the dog's tissues, eventually reaching the heart and pulmonary arteries. There, they grow to as long as 14 inches and can cause life-threatening damage to the heart, lungs, and other organs.

Signs of heartworm disease include:

- a chronic cough
- loss of appetite
- weight loss
- and fatigue.

These signs however, generally do not appear until the disease is well advanced, often a full year after first being bitten by a mosquito transmitting the infective stage.

You can prevent heartworm disease infection in your dog. The adage "an ounce of prevention is worth a pound of cure," could not be more appropriate. Heartworm disease is easily prevented, but once a dog is infected, treatment is complex and expensive. A simple yearly blood test will detect heartworm infection. After the dog has been found to be heartworm free, medication is prescribed to prevent heartworm infection.

Remember: Heartworm disease in dogs is transmitted by mosquitoes. You need to protect your dog(s) against heartworms. **FIRST, schedule your dog's yearly blood test during February or March to avoid the yearly rush in April.** We take a blood sample for microscopic examination to determine if your dog currently has heartworms. **SECOND, give your dog the heartworm preventive we dispense. DO NOT GIVE HEARTWORM PREVENTIVE TO YOUR DOG UNTIL AFTER YOU HAVE THE BLOOD TEST RESULTS.** Plan to give the preventive as directed beginning in May until the end of November. These dates coincide with mosquito season in Michigan.

**ANY FURTHER QUESTIONS YOU MAY HAVE CAN BE ANSWERED BY CALLING OUR OFFICE.
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