

I have heard there may be a problem with the heartworm preventive that I have been giving my two dogs. I have lots of mosquitoes in my yard and I want to do what I can to prevent this disease.

The monthly heartworm preventive drugs we have been prescribing for many years have been shown to be very effective when given on schedule. They all contain a type of parasiticide of the macrocyclic lactone class whether they are oral or topically applied. A few years ago instances of apparent failure of these preventives in dogs from the area of Mississippi River valley were detected. Careful studies have been done at multiple laboratories to see if resistant strains of heartworms were involved in this lack of efficacy. It is now accepted that there are some strains of heartworm that won't have their life cycle blocked while the dog is being given his medication. In these cases, mature heartworms may be found in the heart and lungs, which should have been prevented from maturing from the larval stage that the mosquito injects when it bites.

The extent of the geographic area of these resistant heartworms is not known. Although it was first detected in dogs in the Southern U.S., there are many dogs from that part of the country that are transported and adopted in other areas. If the dog is harboring immature forms of the heartworm in his bloodstream, they could be picked up by biting mosquitoes in his new home. Once they develop into the infective larval stage in the mosquito, they can be passed to another dog when the mosquito bites again.

What does this research mean to you as a dog owner trying to prevent a potentially deadly disease? For now, continue using a monthly heartworm preventive as prescribed by your veterinarian. There is no evidence that shows any one in particular is more effective than another. They are all still very effective, but not 100%. Be sure to give the medication every month. Mark your calendar, or set a monthly reminder for yourself. There are email and text reminder programs offered by various drug companies. If you miss a dose, consult your veterinarian. Generally, you will need to give another dose and then schedule a blood test in 6 to 7 months to make sure no mosquitoes bit your dog during a vulnerable period. Continue having your veterinarian test annually for evidence of heartworm infection so it can be treated early if needed, before irreversible damage is done to the heart and lungs.

Francine K. Rattner, V.M.D.

South Arundel Veterinary Hospital