

**Stoney Creek Veterinary Hospital  
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**Battle Against Heartworms Getting Tougher!**

Every month, lots of dog owners, and a few cat owners, give their pets some form of heartworm prevention. But recent studies are showing increasing numbers of heartworm positive pets across the country. Some people believe the worms now have the upper hand. Has our trusted protection failed us?

Dog owners, and a growing number of cat owners understand that once -a-month heartworm preventives keep their pets safe from a very serious cardiovascular parasitic disease. Despite consistent use of preventive medications, a significant number of dogs are testing positive for heartworms, especially in the mosquito heavy Southeastern US. Are we seeing the beginnings of a resistance movement?

In some cases, careful questioning of the clients reveals some monthly doses of medication were not given, opening the door for potential infection. In other cases, medical records and client compliance appear to be complete, yet the pet is positive on the annual heartworm blood test.

Heartworm preventive works by killing immature heartworm larvae that are spread by mosquitoes. In theory, a pet who receives medication each month should be protected and never have a positive heartworm test. Why then, do some dogs test positive?

Many owners are quick to blame the heartworm preventives. They believe continued use of the drugs will create resistant worms and that will lead to an increase in positive cases. On the surface, this theory appears to have merit. After all, we know that improper and excessive use of antibiotics can create resistant bacteria.

But according to an article in *Veterinary Parasitology*, heartworm resistance should not occur. The authors looked at the life cycle of the heartworm, genetic mechanisms of resistance as well as the timing and dose of the heartworm medications. Their conclusion shows the current medications are unlikely to select for any sort of genetic resistance among the heartworm parasite. In other words, it is doubtful current heartworm preventive practices are causing any resistance. So, what is happening with these heartworm positive dogs?

As unpopular as it sounds, pet owners and veterinarians may have to share the blame. A pet owner who fails to purchase enough preventative medication is putting their pet at risk. Also, research shows that nearly 50% of dog owners who buy heartworm prevention do not give the medication as directed.

Likewise, a veterinary clinic that fails to remind their clients about the importance of year-round prevention is doing a disservice to the pet as well. In order to avoid conflict with pet owners, some veterinary staff might overlook the fact that the owner has not been consistently purchasing heartworm prevention.

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Even our pets are not entirely blameless. Pets that take oral medication and “bury” it or spit it out won’t benefit from its protection. Also, if your pet has an upset stomach the day you give the medication, the complete dose could be lost in a bout of vomiting or diarrhea.

In all of this negativity, there is good news. Experts state that the heartworm preventive failure rate is less than 1 in a million; meaning that if your dog takes his medication routinely, the chances of developing heartworm disease is almost non-existent.

Additionally, veterinarians have multiple options available to clients for providing protection to their pets. Monthly chewable tablets, like HeartGard Plus, are available along with topical formulations for more finicky pets. There is even an injection, called ProHeart 6, that could provide six months of protection from heartworms.

Finally, all of the manufacturers of heartworm preventive medication guarantee their products. They will pay for heartworm disease treatments if your dog tests positive.

Sometimes, it’s easier for people to blame the product rather than admit to a very common mistake, but the fact is pet owner compliance problems may be the biggest reason for more pets with what appears to be heartworm preventive failure.

Regardless of the reason, follow your veterinarian’s advice about heartworm prevention. As always, your family veterinarian will have the best advice.