

# Heartworm: it's Not Just for Dogs Anymore

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We're in the thick of summer. The magnolias are in bloom, the trees are full, the flowers have flowered, and it's hot like we all forget before the summer starts. And we've had our share of rain here on the Hill. With that rain come the mosquitoes, and with the mosquitoes, some very unwelcome guests.

Here in DC, we live in an endemic area for heartworm. There may be as many as 1,000 cases a year in the District, Maryland and Virginia combined. All of us who've taken our dogs to the vet know about heartworm disease. Or we should. The first documented case of infection by *Dirofilaria immitis* appeared more than 100 years ago. Heartworm is a disease that affects not only our dogs, but our cats as well. There have even been documented cases of heartworm infection in humans.

Unlike many other long-term diseases, this one is fairly easy to prevent and can even be cured. The fact that it is still a worldwide scourge has always struck me as odd. Despite great prevention, education, improved diagnosis and very effective preventives, heartworm continues to afflict pets around the world.

How do our pets get heartworm in the first place? The answer brings us back to those mosquitoes and an amazingly efficient life cycle. Don't gag. All you need to know are three words, four if you include "mosquito." In order, they are "adult," "larvae" and "microfilariae." That's it.

So here we go: the mosquito bites a dog, cat or other mammal and injects heartworm larvae into the blood. These larvae mature into adult worms in about six months, and the adults grow and thrive in the heart and lungs for up to seven years. There, they mate and release new, young microfilariae (just immature larvae) back into the blood. Mosquitoes pick these microfilariae up when they bite a dog or cat, mature them into young larvae and fly them to their next unsuspecting host. Pretty nice for the heartworms; not so much for the dogs or cats who get infected.

Now here's the tricky part, and it's possibly why many people don't take this infection as seriously as they should. It can take years before heartworm disease manifests as, well, disease. During that "occult" period, the worms can grow and grow, up to many feet long in fact. They then supply more mosquitoes and can really cause some major damage to their host. And if that's your dog or cat, well, you have some explaining to do.

Eventually, dogs can develop a whole spectrum of clinical signs, including heart murmurs, cough, fatigue during exercise and weight loss. Cats, like all things cat, are

more subtle. That's why it's only been within the past 15 years that we've started talking about heartworm in cats. They can have the same signs as dogs, but more often, cats may just show lethargy, vomiting or rapid breathing – signs often mistaken for many other illnesses in cats.

### Prevention

The thing that has always killed me is that this disease is easy to diagnose – with a simple blood test during your pet's annual exam (or even every other year if you're on a regular schedule with the preventatives) – and very simple to prevent.

I remember the old preventatives – you had to give your dog a tablet every day during mosquito season. Then you stopped in the late fall and winter and had to go back to your vet to have a heartworm test and start the pills all over again in the spring. With the advent of easy, once-a-month, chewable tablets (and even topicals that can also prevent fleas and ticks) it's become much easier. All of these are fantastically effective, and we recommend keeping them going all year. The great news is that, when they're used properly, heartworm is pretty much 100 percent preventable. That's why it's so frustrating to diagnose a dog with a life-threatening disease that could have been easily avoided. Further, giving the preventative will keep the number of heartworm larvae in our area's mosquitoes down. Doing this, you're protecting all of our animals on the Hill. If that's not enough incentive, these preventatives also control many intestinal parasites, some of which can infect humans, too. So what more convincing do you need?

### Treatment

Treatment is a whole different story. If your dog gets heartworm disease, we can treat him, but it takes months, plus some serious recovery time, and even more serious money. Unfortunately, there is no treatment for cats, so it's even more important to talk to your vet about preventing feline heartworm.

If your dog does get heartworm disease, new treatments are generally very successful – a series of three injections over two months with two more months of rest and recovery. Not so easy for an active border collie – that means no play dates at Lincoln Park for four months! Not to mention the injections can be painful for your pup (you'll be giving analgesics for a few days), maybe more so for your wallet.

There is, on the other hand, no treatment for heartworm in cats, and feline heartworm is much less common than heartworm in dogs. Cats seem to be more resistant to it than dogs, sometimes even ridding themselves of the parasite on their own. Others, though, develop serious illness, even resulting in death before we know the cat has the disease.

So the big question is, "Should you give your cat a heartworm preventative?" In our area, I'd say that depends on your cat. If he or she will take it willingly, definitely (and there are topicals for cats, too). If your cat fights you tooth and nail, it's probably not worth it to make an enemy of your little friend. But prevention is never a bad idea if you can do it. It's a calculated risk.

But not so much with dogs. Knowing we have so much heartworm exposure here, shame on you if you don't give him a monthly chewable tablet. It's too easy to prevent this disease. And too devastating if you don't.



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