

Why Haven't Pet Owners Been Told These Facts about Heartworm?

Canine heartworm disease is transmitted by infected mosquitoes.

In the worst case scenario, it results in a fatal worm infestation in the heart and blood vessels of an infected dog.

Fortunately, heartworm disease can be prevented. It can also be successfully treated when caught in time.

The American Heartworm Society (AHS), an organization that studies the disease, its treatment and prevention, recommends yearly heartworm testing for all dogs. The AHS also recommends year-round chemical preventives for every dog over the age of eight weeks, regardless of where the dog lives.

Dr. Becker's Comments:

The [American Heartworm Society](#) has three "platinum" sponsors and five "bronze" sponsors. All eight are major pharmaceutical manufacturers.

It comes as no surprise, then, that the AHS recommends year-round, birth-to-death heartworm prevention drugs – no matter where you live, the time of year, the age of your dog, his size or health status.

What's Wrong with This Picture?

Three things, specifically:

1. **Huge conflict of interest potential.** Heartworm prevention through the overuse of potentially toxic medications sold by pharmaceutical giants like Bayer Healthcare, Merial and Pfizer, is a virtual money machine for drug manufacturers, online retailers, testing laboratories, veterinarians and any other entity that can find a way to cash in.

When there's money on the table – in this case billions of dollars – your pet's health and quality of life can quickly become a secondary concern.

Note also that the ASH recommendation for year-round dosing is not because your pet needs it year-round in every state, but because it's assumed dog owners will forget to re-start the medication when the weather warms up.

And by the way – heartworm "preventives" don't actually prevent your pet from getting worms. What they do is poison the larvae at the microfilaria (L1-L2) stage of development, causing them to die.

2. **Relatively low actual incidence of life-threatening infection.** Heartworm disease is more difficult to acquire – and less lethal – than the dire warnings and marketing claims for chemical preventives would have you believe.

In order for heartworm disease to take hold, a precise sequence of events must occur involving the right climate, the right temperature for the right amount of time, the right species and sex of mosquito, and your dog's less-than-optimal immune system function.

This information is not intended to minimize the need to protect your dog, but only to point out the actual potential for heartworm disease is less than you've been led to believe by financially-motivated marketing campaigns designed to scare pet owners into buying 12 doses of preventive, year in and year out, regardless of where you live!

3. **The existence of less toxic recommendations.** There are less harmful protocols to prevent heartworm in your dog than a lifetime of once-monthly, year-round doses of toxic drugs.

How Heartworm Disease Happens

Heartworms are a variety of roundworm with the clinical name *dirofilaria immitis*. They are spread by mosquitoes.

Dogs can only get heartworm disease through infected mosquitoes. They can't get it from other dogs or other types of animals, from dog feces, or from their mothers while in the womb or through nursing.

Only certain mosquitoes can transmit heartworm to your dog. These mosquitoes must meet certain precise criteria, including:

- They must be female.
- They must be of a species that allows development of the worms in the cells of the body (not all species do).
- They must be of a species that feeds on mammals (not all do).
- They must have bitten an animal infected with stage 1 (L1) heartworms about two weeks prior, since approximately 14 days are necessary for the larvae from the other animal to develop to stage 3 (L3) inside the transmitting mosquito.

This mosquito must then bite your dog. When the larvae reach stage L4-L5, which takes three to four months, under the right conditions they can travel via your dog's bloodstream to the lungs and heart.

If your dog's immune system doesn't destroy these invaders, they will reach maturity (L6), the adult stage, in which males can grow to six inches in length and females to 12.

Two other critically important features in the transmission of heartworm are:

1. The right temperature. During the time the heartworm larvae are developing from L1 to L3 inside an infected mosquito, which is approximately a two-week period, the temperature must not dip below 57°F at any point in time. If it does, the maturation cycle is halted. According to [Washington State University heartworm report](#) from 2006, full development of the larvae requires "the equivalent of a steady 24-hour daily temperature in excess of 64°F (18°C) for approximately one month."
2. Humidity and standing water. Mosquitoes are a rarity in dry climates.

As you can see, in order for your dog to develop heartworm disease, a number of things have to happen with near-perfect timing under a precise set of circumstances.

Information on how many cases of canine heartworm disease occur each year in the U.S. is scarce. The AHS provides a [heartworm incidence map](#) for the years 2001, 2004 and 2007 which you might find helpful. Keep in mind it is a very general guideline and shouldn't be viewed as the only decision-making tool at your disposal.

Assessing Your Dog's Risk

There are only a few areas in the U.S. in which giving a nine month to year-round heartworm preventive might be advisable – those areas are in south Texas, south Florida, and a few other locations along the Gulf coast. **The rest of the U.S. ranges from three to seven months of high exposure risk. The majority of states are at six months or less.**

Given that heartworm preventives are insecticides designed to kill heartworm larvae inside your animal, and therefore have the potential for short and long-term side effects damaging to your pet's health, the first bit of information you need is your dog's actual risk of exposure to infected mosquitoes.

I recommend you talk to a holistic veterinarian in your area to get this question answered. If you don't have a holistic vet, you can find a directory at www.ahvma.org. Many holistic vets do phone consultations, which can be an alternative if there are no doctors practicing in your immediate area.

A holistic vet will be knowledgeable not only about the risk of heartworm disease in your location, but also potential side effects of chemical preventives, and alternatives to over treating with these products, as well as suggesting detox options.

And if the vet you consult has already seen or treated your dog, he or she will also be able to assess the risks and benefits for your particular situation.

First Things first

The next consideration is how to best protect your dog from heartworm disease with the least amount of impact to her overall health, including:

- [Feed a balanced, species-appropriate diet](#). The healthier your dog is, the less attractive she'll be to all types of pests and parasites, and the better able her immune system will be to fight off invaders. Parasites are more attracted to weak animals.
- And speaking of keeping her immune system healthy, take care not to allow your pet to be overloaded with toxins through [unnecessary vaccinations](#) and repeated courses of antibiotic or steroid therapy – two of the most overprescribed drugs in veterinary medicine.
- Control mosquitoes. Use a [non-toxic insect barrier](#) in your yard and around the outside of your home. Don't take your dog around standing water. Stay indoors at dawn and dusk. Make liberal use of a safe, effective bug spray.

Safe and Sane Heartworm Prevention

If you live in a region of the U.S. where mosquitoes are prevalent and you've determined your dog's risk of exposure to heartworm disease is high, my recommendations are:

- Go the natural route -- using heartworm nosodes and/or other homeopathic treatments and/or herbal/dietary supplements -- under the guidance of a holistic veterinarian, with heartworm testing every three to four months (checking more frequently is critical as all natural heartworm prevention doesn't guarantee your pet will never contract the disease).
- Providing your dog is healthy with good kidney and liver function, go with a chemical preventive at the lowest effective dosage (compounded if necessary for dogs that weigh at the low end of dosing instructions), at six (not four) week intervals, for the minimum time necessary during mosquito season.
- Don't use 'silver bullet' all-in-one products that prevent against every known GI worm and external parasite. If you use traditional heartworm preventives, the goal is to use the least amount of drug that successfully prevents heartworm. Using the heartworm 'plus' products, which unnecessarily deworm your pet monthly for GI parasites she doesn't have, are more drugs your pet doesn't automatically need.
- Follow up treatment with natural liver detox agents like milk thistle and SAMe, again with guidance from your pet's holistic vet. And don't add to your dog's toxic load by administering chemical flea or tick preventives during the same week.
- Calculate the month you need to begin (and discontinue) prevention based on temperatures in your area. See the charts below for guidelines:

Always have your vet do a heartworm test before beginning any preventive protocol.