

# Flea and Heartworm Prevention for Your Pets

By Dr. Mike Dix, DVM

Here's some basic information about preventing fleas and heartworms in your cats and dogs. For more specifics about how to treat your pets for these conditions, please talk to your veterinarian.

## Flea Prevention

Flea preventative comes in either an oral or a topical form. The oral forms typically only last a short time (Capstar is one example) or do not kill adult fleas and only prevent flea reproduction (e.g., Program).

The most popular forms are the topical preparations, which usually last for about a month and are very effective. Some are more waterproof than others (for example, Frontline is more waterproof than Advantage). Some also treat other insects, such as ticks (Promeris in dogs, Frontline and Revolution) and lice (Revolution and Frontline); repel mosquitoes (Revolution); and control other external parasites (Promeris in dogs, and Revolution). Revolution is also a heartworm preventative and can control internal parasites (in cats more than dogs).



All these products have been proven to be relatively safe as long as they are used for the species intended; for example, never give Advantix (not to be confused with Advantage) to cats. Some people don't like putting these chemicals on their pets, but in my opinion, it is better than having the nuisance of fleas and the potential diseases that can come from fleas. There are alternative therapies, such as feeding garlic and spreading diatomaceous earth on the ground, but I have not found these methods to be consistently effective.

In some regions of the country (e.g., the desert) and seasons (e.g., winters in cold climates), fleas are less of a problem. Consult with a veterinarian about what flea product is best for your pet, your pet's lifestyle and your geographic region.

## Heartworm Prevention

Heartworm is a parasitic infection that is spread by mosquitoes. Cats and dogs can both get it, but heartworm is much less prevalent in cats: between 10 and 15 percent of the rate of infection in dogs, depending on geographic region. Not all mosquitoes everywhere transmit heartworm. The weather has to be warm enough consistently for long enough for the mosquitoes to be able to transmit the infection, which is why most mosquitoes in Alaska don't spread the disease.

Here's what happens: Heartworm is injected into the dog or cat from the mosquito in a

larval stage. This larva develops through several more stages before becoming an adult worm and residing in the pulmonary arteries of the dog or cat. The infection is debilitating to the animal and treatment is costly, so it's best to prevent the disease from happening in the first place.

The heartworm preventatives available today are effective if used consistently. They actually work retroactively, meaning they kill larvae that have been in the dog for up to 45 days. Once the larval stages advance beyond this 45-day period, however, the preventatives are no longer effective. Since it is easier to remember to give medication every 30 days instead of every 45 days, the heartworm preventatives are dosed at 30-day intervals.

Heartworm preventatives come in three forms – oral, topical and injectable (soon to come back on the market as ProHeart). The oral products are my favorite, since the animals like them, you know they got the medication at the right dose, and they also control intestinal parasites (good for the health of the dog and the human family). The most popular are Heartgard and Interceptor. Some breeds (such as collies) are sensitive to the medications, so please consult a vet before starting one of the preventatives.

The most popular topical preventative is Revolution, which works in a similar fashion to Heartgard but is applied topically. My concern with this medication is that if some gets stuck on the fur or gets washed away, the dose may not be appropriate and the animal may not be protected. The injectable form is good for six months, which is more convenient than a monthly dose, but it does not control intestinal parasites (at least it didn't used to). I am not sure how ProHeart will work because injectables have been off the market for awhile.

Heartworm is a regional condition. Because the mosquitoes must have a certain ambient temperature to develop the mosquito larvae, some areas only get the disease seasonally (e.g., Wisconsin does not have a problem in the winter), some do not get it at all (e.g., most of Alaska) and other areas have it year-round (e.g., the southeastern U.S.). In warm areas like the southeastern U.S., if pets are not on preventative, they will get the disease. Consult with a vet to determine when and if your pet should be on heartworm preventative.

*Dr. Mike Dix is the medical director for the Best Friends clinic. He works closely with the other Best Friends veterinarians and the rest of the medical team to provide care to the sanctuary's 1,600-plus animal residents.*