

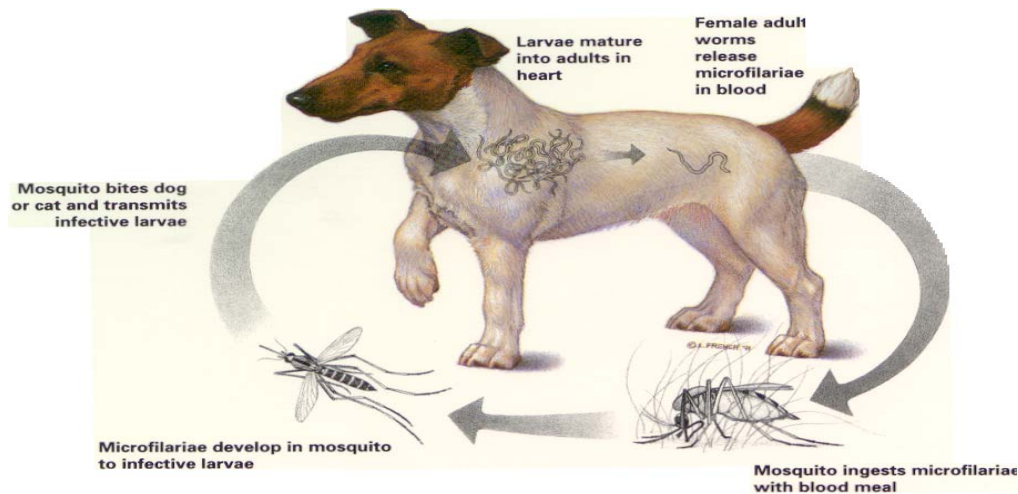
# Louisville Family Animal Hospital

## Spring Newsletter, 2007

### Heart Worm Disease in Dogs:

Nearly everyone has heard of heartworm disease in dogs, but how many people understand heartworm disease?

Heartworm disease is transmitted to dogs by mosquito bites. The mosquitoes' saliva harbors the tiny larval forms of heartworm (*Dirofilaria immitis*). When a mosquito bites your dog, the mosquito inserts her mouth-parts and injects saliva into the dog. If the saliva has heartworm larvae, the larvae are injected into the dog. The larval organisms mature in the dog's body and travel to the right side of the heart and the blood vessels of the lungs. Once the worms reach maturity, female worms produce more larvae. Immature larvae enter the blood stream. A mosquito bites your dog, picks up larvae, and may go on to bite the neighbor's dog. The cycle continues.



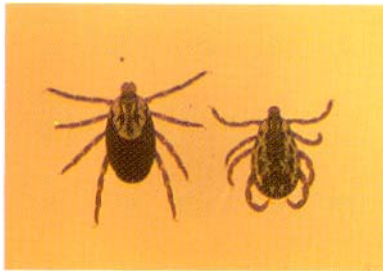
Obviously, heartworm disease has deleterious effects on pets. A dog with adult worms in his/her heart may experience coughing, shortness of breath, exercise intolerance, weight loss, and even signs of heart failure. The disease is diagnosed with a blood test. If your dog's blood test is positive for heartworm, treatment can be offered. Treatment involves hospitalization, several injections of a drug that kills the worms, oral medications, and multiple blood tests. Some dogs experience serious side effects from the treatment for heartworm disease. Dogs severely infected with heartworm disease have a very poor prognosis for survival. Therefore, it is very important to prevent heartworm disease in your dog.

Prevent the development of adult worms with one chewable **Triheart** tablet per month. Test your dog regularly to ensure that no larvae have matured to adulthood: either once yearly (if your dog is on seasonal prevention May through October) or once every other year (if your dog stays on monthly prevention year-round.)

# Why worry about ticks?

## *Tick-borne diseases in dogs and cats:*

Several species of ticks transmit bacterial diseases that may be life threatening to your pet. Notice the ticks listed below.



Adult female *Dermacentor variabilis* (left). (Courtesy of Kimberly Wilson, Dallas, Texas.)  
(Dimension: 5 mm)



Engorged adult female *Rhipicephalus sanguineus*.  
(Dimension: 12 mm)

The American dog tick (*Dermacentor andersoni*) transmits a bacterial organism called *Rickettsia rickettsii*. The bacterial organism causes a disease known as **Rocky Mountain Spotted Fever**. Dogs, or humans, may develop a severe fever, listlessness, bloody nose, blood in the urine and/or stool, small red bruises on the gums, and possibly severe swelling of the face and legs. Rocky Mountain Spotted Fever is life threatening. Treatment ranges from weeks of antibiotic therapy to a blood transfusion in severe cases.

A disease transmitted by the brown dog tick (*Rhipicephalus sanguineus*) causes signs similar to Rocky Mountain Spotted Fever. The disease is known as **Ehrlichiosis** and is named after the organism that causes it: *Ehrlichia canis* or *Ehrlichia platys* in dogs or *Ehrlichia risticii* in cats. Again, this disease is life threatening. Medical therapy is essential.

A third disease transmitted by ticks, **Lyme disease**, causes arthritis, fever, and diseases of the heart, kidneys and central nervous system. Lyme disease is caused by a bacterial organism known as *Borrelia burgdorferi*. A small deer tick (*Ixodes scapularis*) transmits the bacterial organism. Treatment with antibiotics is necessary to control the painful symptoms of Lyme disease, but unfortunately, the disease is incurable and a life-long burden to the victim.

All of the tick-borne diseases are called **zoonotic** diseases, meaning that the diseases can be transmitted from animals to human beings. Transmission from dog to human is unlikely, but possible. People usually get tick-borne diseases from ticks.

Pet owners can prevent tick-borne diseases in their pets by using a topical monthly preventative product such as **Frontline Plus**. Tick collars are not a reliable source of tick control. One application of Frontline Plus helps kill ticks for a month and fleas for up to three months. Ask your veterinarian for further information regarding this product.