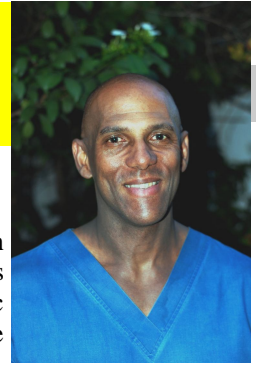


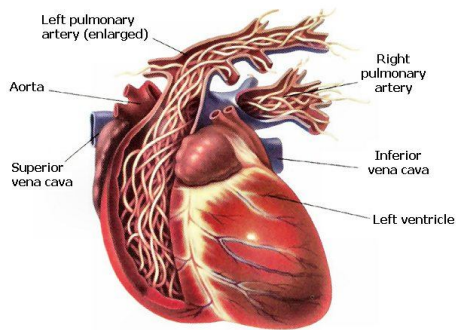
CANINE HEARTWORM AND HUMANS – what you should know

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The canine heartworm, *Dirofilaria immitis*, is a nematode worm that primarily infests dogs with the adults residing in the right ventricle of the heart and the pulmonary artery which conducts blood to the lungs. The adult females, which can be up to 20 cm long, produce microscopic offspring called microfilaria which circulate in the blood waiting for their vector “taxi” to come along.

The vector is the mosquito which picks up the microfilaria during a blood meal. These then undergo further development in the mosquito and move into its salivary glands as infective larvae ready for delivery when it takes its next meal. If the victim is a dog, the larvae are introduced via the mosquito’s saliva, migrate into the body and mature over a period of six months to emerge in the right heart as adult heartworms to start the cycle again.



Affected dogs may show no signs of illness until the number of worms becomes large enough to interfere with heart function. Signs include a cough which does not get better, weight loss, exercise intolerance, fluid build-up in the abdomen, difficulty breathing and eventually death.

<http://www.wormsandgermsblog.com/uploads/>

But heartworm-infected mosquitoes bite humans too - what then? Humans are “abnormal” hosts for heartworms, so generally the larvae die quickly. Occasionally they do succeed in moving into the body and eventually end up in the lungs where they die and the body’s defenses wall them off forming a nodule. Most people will have no symptoms at all, but some might develop a cough, including coughing up blood, fever, chest pain and fluid accumulation in the chest. Rarely, the larvae may end up in the brain, eye or testicle.

The “coin lesion” nodules can be detected by X-ray, but confirmation requires surgical removal of the lesion for microscopic examination. This condition, Human Pulmonary Dirofilariasis, should be on the list of possible diagnoses for human patients with coin lesions in the lungs from areas where canine heartworm is prevalent. It is prevalent in many parts of Jamaica.



Your veterinarian can test your dog for heartworm with an in-clinic blood test with results in less than ten minutes. Heartworm negative dogs can be kept that way by administering the drug ivermectin every one to two months. Ivermectin should generally NOT be given to a dog that is heartworm positive. Treatment is costly and, though effective, involves some risk which increases with the stage of illness.

Heartworm Coin Lesion in human lung.—http://img.medscape.com/pi/emed/ckb/infectious_diseases/211212-236698-2275tn.jpg

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