

Disease Overview. Heartworm disease is caused by a mosquito-borne parasite called *Dirofilaria immitis*. This parasite infects dogs, ferrets, wolves, coyotes, seals sea lions and, occasionally, cats. Heartworms live inside in the large blood vessels leading from the heart to the lungs. Animals may become infected when bitten by mosquitoes that are carrying the parasite. Mosquitoes pick up the parasite when they bite an animal that has an active infection. Infection can be present for awhile before symptoms appear. Clinical signs may include tiredness, problems breathing, coughing, and heart failure.

Human Health Risk. Human infections with *Dirofilaria immitis* are rare, and most commonly have involved for the formation of nodules in the lungs or under the skin. To learn more about human infections see the posting from the American Veterinary Medical Association at www.avma.org/reference/zoonosis/zndirofi.asp.

Local Data. The amount of heartworms in local mosquitoes may increase or decrease over time. Heartworm disease was not reportable in LA County until recently. A 2004 study found that 5-20% of Southern California coyotes are infected.¹ Current data is primarily from reports from Los Angeles County veterinarians. A few spontaneous reports from Orange County were included. A total of 43 cases in have been reported; 40 from LA County, and 3 from Orange County. The cases were diagnosed between 2005 and July 31, 2009, and included 42 dogs and one cat. Approximately 7 cases were reported per year. The average age of these animals was just under 6 years.

Twenty-two of these 42 cases (51%), were “imported,” meaning the animal was infected while out-of-state or while in Central or Northern California. Fourteen (33%) of the cases were “local”, or infected while in Southern California. In seven cases (16%) the location where infection was contracted was unknown.

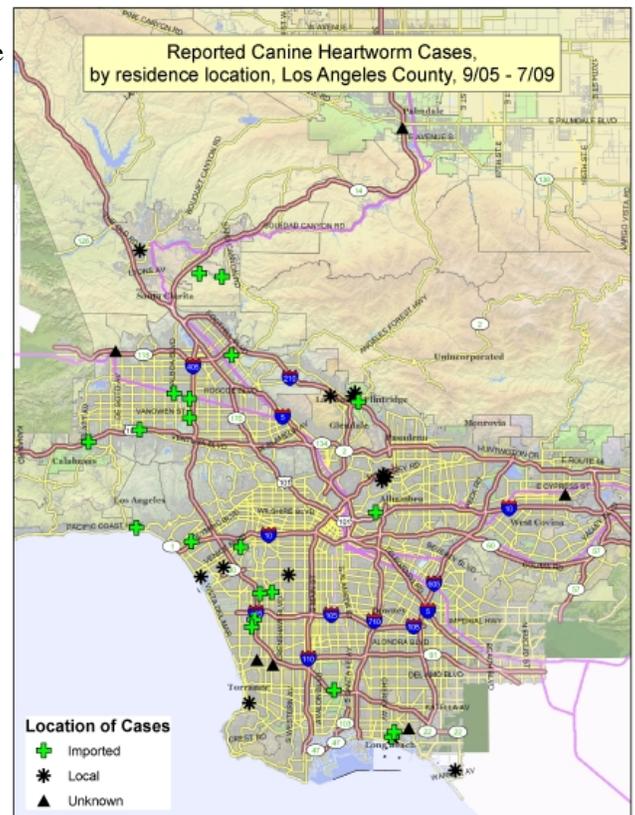
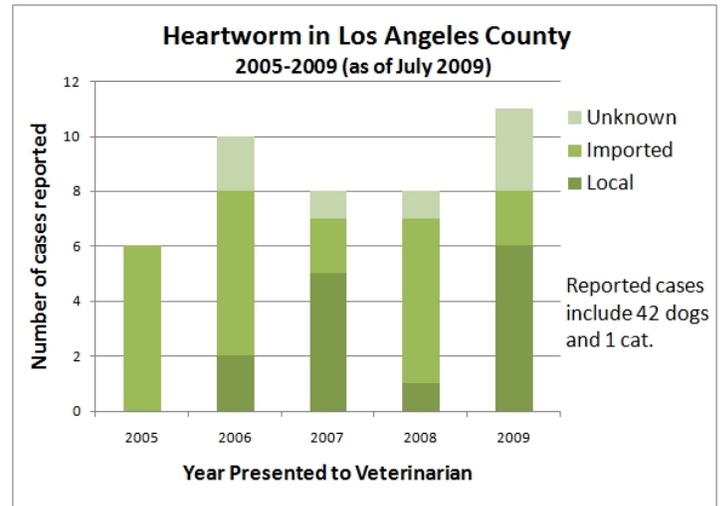
Twenty-six (61%) of the cases had no outward clinical signs, ten cases (23%) had fatigue, Eleven (26%) cases had a cough, and four (9%) of cases presented in heart failure.

Heartworm cases have been reported from all over Los Angeles County. Not all cases are visible on the map: in cases where more than one dog in the home was infected, only one marker appears.

Recommendations.

Mosquito Control. Help reduce mosquito breeding by dumping any standing water on your property every 48 hours. Mosquitoes feed the most at dawn, dusk and at night, so it is best to keep your pet indoors at night.

Consider Heartworm Preventative Medication. It is unknown if the local risk of heartworm infection is increasing. In many other parts of the United States heartworm infection risk is high, and pets (particularly dogs) routinely become infected if they do not receive preventative medication. Heartworm preventative medications are generally regarded as safe and some help prevent infection with additional parasites. Discuss the issue with your pet’s veterinarian.



References

¹Sacks BN, Chomel BB, and Kasten RW (2004). Modeling the distribution and abundance of the non-native parasite, canine heartworm, in California coyotes. *Oikos* 105(2): 415-425.