

# THE ABCs OF

TEAM EDUCATION & CLIENT COMMUNICATION

## Heartworm disease

### WHAT IS HEARTWORM DISEASE?

Heartworm disease is a serious and potentially fatal condition caused by parasitic nematodes that inhabit the arteries of the lungs and the right side of the heart of dogs, cats, and other mammals. *Dirofilaria immitis* is the specific nematode that causes disease in dogs and cats. Heartworms are transmitted by the bite of a mosquito that is carrying the infective stage of the parasite.

### WHAT SHOULD YOU WATCH FOR?

Though most dogs don't exhibit clinical signs of heartworm infection in the early stages, here are some signs to look for as the disease progresses:

- Mild disease: Cough.
- Moderate disease: Cough, exercise intolerance, and abnormal lung sounds.
- Severe disease: The same signs as for mild and moderate disease plus difficulty breathing, syncope (loss of consciousness), hepatomegaly (liver enlargement), ascites (fluid accumulation in the abdominal cavity), and abnormal heart sounds.

### WHY IS HEARTWORM INFECTION DANGEROUS?

Heartworms interfere with blood flow and cause inflammation in and around the heart's vessels and may eventually cause a weakening of the heart. The disease may also contribute to liver and kidney failure. Any one or more of these issues may lead to death.

### CAN YOU TEST FOR HEARTWORM DISEASE?

Though there are several heartworm antigen tests on the market, only one in-house test—the IDEXX SNAP® 4Dx® Test—allows you to screen dogs for heartworms as well as *Ehrlichia canis*, *Borrelia burgdorferi*, and *Anaplasma phagocytophilum* organisms. You can feel confident offering clients more thorough parasitic screenings because the 4Dx Test screens dogs for four vector-borne diseases at once: heartworm disease, ehrlichiosis, Lyme disease, and anaplasmosis.

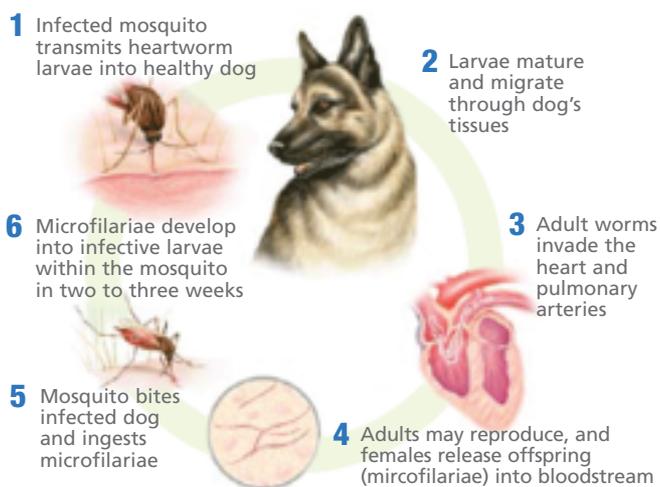
1. American Heartworm Society. Canine heartworm disease. Available at: [www.heartwormsociety.org/CanineHeartwormInfo.htm](http://www.heartwormsociety.org/CanineHeartwormInfo.htm). Accessed January 12, 2007.
2. American Heartworm Society. News release. Available at: [www.heartwormsociety.org/MediaRelease.htm](http://www.heartwormsociety.org/MediaRelease.htm). Accessed January 12, 2007.
3. IDEXX Laboratories. Heartworm disease is still a serious threat. Available at: [www.idexx.com/animalhealth/testkits/3dx/heartworm.jsp](http://www.idexx.com/animalhealth/testkits/3dx/heartworm.jsp). Accessed January 12, 2007.

It takes **6 to 7** months from the time a dog is bitten by an infected mosquito until a blood test can accurately detect the presence of adult female heartworms.<sup>1</sup>

### TAKE NOTE

- ▶ According to a recent Gallup survey of 18,000 veterinary clinics nationwide, only 55% of dog-owning households in the United States administer heartworm preventives.<sup>2</sup>

### MOSQUITO-BORNE DISEASE LIFE CYCLE<sup>3</sup>



In 2004, an estimated

# 250,000

dogs and cats tested positive for heartworm infection.<sup>4</sup>

### WHY SHOULD DOGS BE TESTED?

Heartworms have been detected in dogs native to all 50 states. Because heartworm infection often produces no clinical signs, all dogs should be screened annually in both endemic and nonendemic areas—even when preventives are faithfully administered. The SNAP 4Dx Test helps you identify heartworm-positive dogs immediately so you can start talking to clients about treatment options right away.

### TALKING ABOUT PREVENTION

Many clients don't know that heartworms are transmitted by mosquitoes. Prior to warm weather months, talk about transmission and prevention. Reassure your anxious clients that people rarely develop heartworm disease from mosquito bites. The single most important prevention issue? Client compliance. All discussions about heartworm disease need to reinforce the huge role owners play in keeping their dogs heartworm-free with annual screenings and consistent preventive administration.

4. Verdon DR. Heartworm infection continues its climb, survey reports. *DVM Newsmagazine* 2006;Feb 1:1S-2S.

### ANSWERS TO CLIENTS' MOST COMMONLY ASKED QUESTIONS

#### Q. How often should we test my dog for heartworms?

**A.** Annual heartworm screenings are highly recommended. Yearly tests provide you with peace of mind that your dog is heartworm-free as well as a better treatment outcome if heartworms are present. Even though heartworm preventives are nearly 100% effective when administered according to manufacturers' instructions, dogs receiving preventives occasionally test positive. This outcome is typically due to skipped doses of the preventive, relocation to an area with a high heartworm incidence, or a previously unrecognized or misdiagnosed infection.<sup>5</sup>

#### Q. What does it mean that my dog tested positive for heartworms?

**A.** A positive antigen test almost certainly indicates that your dog harbors heartworms in the pulmonary arteries or the right chambers of its heart. If untreated, heartworm disease may ensue if it hasn't already. Most dogs can be successfully treated if heartworms are detected early. In asymptomatic dogs, less than 1% will show any significant complications from treatment.<sup>5</sup>

#### Q. Should I worry if I've missed giving my dog its heartworm preventive for two months?

**A.** Don't be concerned if you've missed two months, but resume dosing right away. Monthly heartworm preventives kill the larvae that have accumulated in your dog's body during the previous month. Most formulations have an additional safety net (retroactive efficacy) of a month when dosing is resumed. If the lapse is three to six months, administer the preventive immediately and have your dog tested for heartworms seven to 12 months later.<sup>5</sup>

5. American Heartworm Society. Frequently asked questions. Available at: [www.heartwormsociety.org/FAQ.htm](http://www.heartwormsociety.org/FAQ.htm). Accessed January 12, 2007.