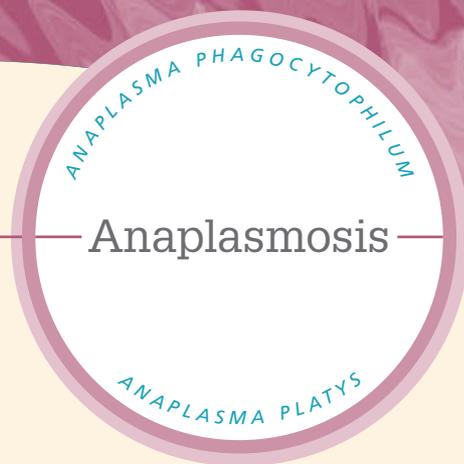


THE ABCs OF

TEAM EDUCATION & CLIENT COMMUNICATION



WHAT IS ANAPLASMOSIS?

Canine anaplasmosis is a disease that is caused by the organisms *Anaplasma phagocytophilum* and *Anaplasma platys*, which are transmitted to dogs by certain ticks. Associated clinical signs (e.g., fever, depression, lethargy, polyarthritis, vomiting, diarrhea, anorexia, weight loss, and thrombocytopenia) mimic other tick-borne diseases. Therefore, it is difficult to establish a diagnosis based on clinical signs alone.

Infection with *A. phagocytophilum* generally causes more severe clinical signs than infection with *A. platys*. Dogs co-infected with other tick-borne pathogens, such as *Borrelia burgdorferi* or *Ehrlichia canis*, may present with more severe disease.

WHY IS ANAPLASMOSIS DANGEROUS?

According to Susan E. Little, DVM, PhD, professor of veterinary parasitology at Oklahoma State University, anaplasmosis is dangerous, in part, because the infection often goes undiagnosed. Many dogs appear to recover from the acute infection but can harbor a chronic infection, which could be exacerbated if the dog becomes immunocompromised or co-infected.

HOW DO YOU TEST FOR ANAPLASMOSIS?

Only one in-house test, the IDEXX SNAP® 4Dx® Test, screens dogs for exposure to the following four vector-borne agents:

- *Anaplasma phagocytophilum*
- *Borrelia burgdorferi*, which causes Lyme disease
- *Ehrlichia canis*, which causes ehrlichiosis
- *Dirofilaria immitis*, which causes heartworm disease.

This test has also been shown to cross-react with *A. platys*. In an IDEXX study, the SNAP 4Dx Test showed a positive result for *A. phagocytophilum* with serum from 10 out of 10 dogs infected with a laboratory strain of *A. platys*.¹

WHY IS TESTING IMPORTANT?

Dr. Little says it's important to test for anaplasmosis because:

- It documents exposure to ticks, which can help team members promote tick-control products to their clients.
- It documents exposure to the disease agent in dogs, so practitioners can more fully assess the presence of a disease state.
- It is used to support initiating antibiotic treatment (doxycycline at 5 to 10 mg/kg orally twice daily for four weeks) to clear the infection.

It only takes

24 to **48**

hours for an infected tick to transmit *Anaplasma* organisms to a dog.

► WHY TEST ANNUALLY?

Matt Eberts, DVM, at Lakeland Veterinary Hospital in Baxter, Minn., says that he has incorporated the SNAP 4Dx Test into his annual screening, which has allowed him to identify and treat anaplasmosis—before the infection becomes chronic and severe—in about 50% of his canine patients.

“Catching the disease early gives you the opportunity to intervene and develop strategies to prevent disease,” Dr. Eberts says. “If you aren’t aware of the infection, you run the risk of misdiagnosis.”

Dr. Little agrees, adding that regular testing evaluates both the efficacy of preventive tick-control products as well as owner compliance with monthly administration.

1. Data on file, IDEXX Laboratories.

The Companion Animal Parasite Council recommends that all pets be maintained on a tick-control product

365
days a year.²

TAKE NOTE

It's important to recognize when your patients are at a high risk for contracting tick-borne diseases. Here's how:

- ▶ **Know what ticks are in your area.** Look to local resources, such as your state health department, universities, and identification guides. *A. phagocytophilum* is generally transmitted by *Ixodes scapularis* (in the East and upper Midwest) and *Ixodes pacificus* (on the West coast). Although not confirmed by experimental infection trials, some evidence suggests that *A. platys* may be transmitted by *Rhipicephalus sanguineus*,^{3,4} which is more common in the South.
- ▶ **At every exam, ask about the dog's travel history.** Have the client, family, and pet travelled to areas of the country where ticks and tick-borne diseases are common?

2. Companion Animal Parasite Council. CAPC guidelines: *Ehrlichia* spp. and *Anaplasma* spp. guidelines. Available at: www.capcvet.org/?p=Guidelines_Ehrlichia&rh=0&rs=0. Accessed March 12, 2007.

3. Sanogo YO, Davoust B, Inokuma H, et al. First evidence of *Anaplasma platys* in *Rhipicephalus sanguineus* collected from dogs in Africa. *Onderstepoort J Vet Res* 2003;70:205-212.

4. Inokuma H, Raoult D, Brouqui P. Detection of *Ehrlichia platys* DNA in brown dog ticks (*Rhipicephalus sanguineus*) in Okinawa Island, Japan. *J Clin Micro* 2000;38:4219-4221.

ANSWERS TO CLIENTS' MOST COMMONLY ASKED QUESTIONS

Q. Why are you testing my dog for anaplasmosis?

A. We recommend annual testing for many reasons. First, many dogs don't exhibit clinical signs until long after they've been infected. Second, regular testing allows us to quickly determine your dog's infection status so we can begin treatment immediately, if necessary. In addition, if the infection is caught early, dogs can be treated more easily.

Q. How can I protect my dog from infection?

A. Because no anaplasmosis vaccine exists, the best way to prevent infection in your dog is by applying a monthly tick-control product. I will show you the correct method to apply this product, and please remember that your dog will only be protected if you regularly apply the product every month, all year long. However, although tick-control products help reduce the risk, nothing is guaranteed to prevent infection entirely.

It's also important to remove any attached ticks promptly and to avoid tick-infested areas, such as wooded areas and fields of tall grass. In your backyard, always clip your grass and shrubs regularly and remove leaf litter.² Fencing helps exclude wildlife, which can harbor ticks. In addition, adding a section of gravel between wooded areas and your yard can prevent the spread of ticks.

Q. Can my dog give me anaplasmosis?

A. No, pets are not an immediate source of infection to people. However, ticks can attach and transmit anaplasmosis and Lyme disease directly to you. That's why you should also take preventive measures to protect yourself when in tick-infested areas. Wear light-colored, protective clothing, perform frequent tick checks, and always use tick-repellent products.²