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HEARTWORM AND TICK DISEASE: WHY WE CARE

Each year, at the time of your dog's annual exam and vaccines, your veterinarian will recommend doing a test for heartworm and tick diseases. Commonly called a "4Dx" test, this 10 minute blood test requires three drops of blood and detects heartworm disease and exposure to three diseases spread by ticks: Lyme, Anaplasma, and Ehrlichia.

What is heartworm disease?

Heartworm disease is a condition where large (up to a foot in length!) worms live in the heart and major blood vessels of the lungs. The larval form of the worm is injected with a mosquito bite; the larvae then spend 4-6 months developing into adult worms while migrating to the heart. Once inside the heart, the worms cause inflammation and directly disrupt how well the heart can function. Signs of heartworm disease include coughing, exercise intolerance, heart failure, and sudden death. Heartworm disease is easily prevented by giving a once a month, inexpensive oral tablet (~\$5 per month) that kills the developing larval heartworms, thus preventing the adult worms. Once adult worms have developed, heartworm disease is treated by an injectable medication, which is a risky and expensive treatment. Testing for heartworm disease is required annually, since the monthly oral medication can cause complications in dogs already positive for adult heartworms.

What should I know about Lyme disease in my dog?

Lyme disease is a bacterial disease that we see commonly in central Minnesota, and is spread by the bite of a deer tick. Signs of Lyme disease include limping on one or more legs, generalized soreness, fever, anorexia, and vomiting. A more serious condition related to Lyme infection is Lyme nephritis, which is inflammation and eventual failure of the kidneys. Signs of Lyme nephritis include drinking and urinating more. Preventing Lyme disease is primarily through annual vaccination and monthly application of tick control products through the spring, summer, and fall months.

What is Anaplasma?

Anaplasmosis is another serious bacterial disease spread by the deer tick and detected on the 4Dx test. The clinical signs of Anaplasma include lameness, fever, anorexia, and bleeding, as an Anaplasma infection causes blood platelet destruction- platelets that are responsible for normal blood clotting. A complete blood count, or CBC, may be recommended if your dog is positive for Anaplasma on the blood test.

What is Ehrlichia?

Ehrlichia is the third tick disease detected on the 4Dx test and, thankfully, is less common in this area. Clinical signs in your dog can include lethargy, anorexia, swollen lymph nodes, lameness, coughing, vomiting and diarrhea, and bleeding. Chronic infection with Ehrlichia can cause bone marrow dysfunction. Due to the many signs you can see, the blood test is important to diagnose Ehrlichia.

What is the best way to protect my dog from these diseases?

Due to the severity of heartworm and tick diseases, annual 4Dx tests are recommended for all dogs. In addition, monthly heartworm and tick medications are very important! Please contact your veterinarian for the most accurate and up to date recommendations about testing and treatment and prevention.

Disclaimer: This written content is meant to be educational and is not medical advice. Always consult a veterinarian about medical advice for your pet.