

What You Need to Know about Lyme Disease

Lyme disease is caused by bacteria called *Borrelia burgdorferi* which is transmitted by the bite of the deer tick. This tick is very small. The tick needs to feed for 48 hours in order to transmit disease.

What are the signs of Lyme disease in a Dog?

Buzzards Bay and Dedham are considered to be Lyme endemic areas. Most dogs that are not maintained on regular tick control have been or will be exposed to Lyme disease. Of those exposed, only some show signs of illness. The common signs of Lyme disease are fever, swollen lymph nodes, and swollen and painful joints. These signs may make the dog feel very ill for several days to weeks or the signs may be mild and only last for several hours. These symptoms respond remarkably well to a 30 day course of antibiotics, usually doxycycline. The new concern with Lyme disease in the veterinary literature is the potential for some dogs to develop "Lyme Nephritis." In this condition the kidneys become damaged as the body fights the Lyme bacteria. This is a much less common manifestation of Lyme disease but is very serious because it can lead to kidney failure and death.

Lyme testing has become part of the annual examination for your dog:

We have replaced our annual heartworm test with a new four part test which will allow us to test your dog for Heartworm Disease, Lyme Disease, Anaplasmosis and Ehrlichiosis (other tick-borne diseases).

If your dog tests NEGATIVE for Lyme Disease:

This means that he or she has not been exposed to the disease. For all dogs testing negative for Lyme disease we recommend a yearly Lyme vaccine. If your dog has never been vaccinated for Lyme before, he or she will need a series of 2 vaccines 3 weeks apart. We use the safest Lyme vaccine available. Vaccination for Lyme disease is **only** recommended if your dog tests **negative** for Lyme exposure.

If your dog tests POSITIVE for Lyme Disease:

Your dog has been exposed to Lyme disease. Your dog may or may not show signs of the disease. There is currently some debate between the experts on what to do with dogs that test positive for Lyme but do not appear to be sick. Some of these dogs may have shown illness only briefly, an off day, or may have yet to become sick. There are some dogs that never act sick from Lyme disease.

It is firmly agreed that dogs that test positive for Lyme should be screened for "Lyme Nephritis". A urine sample can be submitted to screen for protein, which is a sensitive test for this serious kidney problem. A complete blood count and biochemical profile are also recommended to assess the major organs, immune system and blood cells.

There is some debate about which dogs should be treated for Lyme. Dogs that show signs of illness should always be treated. Some experts feel that it may not be necessary to treat dogs that never get sick. It is sometimes very hard to know if a dog has been sick with Lyme or will become sick since for some the disease is so mild and short-lived or takes months to show up. For this reason the doctors at Dedham Veterinary Associates feel that all dogs testing positive for Lyme should be treated.

For most dogs once they test positive for Lyme they will always test positive. So how do we tell if they have a new infection that needs treatment? Many experts find it helpful to get an estimation of the number of Lyme organisms in the body to monitor treatment. This can be estimated with a C6 LYME QUANTITATIVE TEST. This test can be repeated 4-6 months after treatment to determine if it was successful. Once successfully treated some dogs will become negative for Lyme but some will not. If they stay positive on our in-house Lyme test we can use the C6 test to tell if their Lyme levels have gone up, thus indicating a new infection. This test is fairly new technology but initial reports indicate that it is very valuable in the management of Lyme disease. The doctors at Dedham Veterinary Associates recommend this test for all dogs that test positive for Lyme.

How can I prevent Lyme Disease in my dog?

We recommend regular Lyme vaccination for all puppies that have not yet been exposed and all adults that test negative for Lyme disease. There is now some evidence that dogs that previously had Lyme disease, and still test positive for it, but stay consistently low on the C6 test after treatment will benefit from the Lyme vaccine to prevent re-infection.

Regular tick control is EXTREMELY important in a Lyme endemic area. We recommend Frontline™ applied once per month between the shoulder blades of your dog all year around. Frontline will kill ticks before they attach. Some ticks are able to attach despite Frontline being present, but these are usually killed in 12 hours. These ticks will remain attached, but will be dead. It takes 48 hours of attachment to transmit the Lyme bacteria from the tick to your dog's blood stream. The Preventick collar is recommended as a tick preventative in households without cats or small children. **After walking your dog, you should check him or her for ticks and promptly remove any that you find. This is the most effective way to prevent diseases spread by ticks.**

The science of infectious diseases is constantly changing:

Veterinarians are only beginning to fully understand the repercussions of Lyme disease in the dog. Information is changing by the day. Our veterinarians are constantly taking continuing education seminars and attending conferences on this subject to ensure that you are provided with up to the minute information on Lyme Disease and your dog.