

There is a vaccine available to prevent Lyme disease in dogs. The vaccine is very effective.

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Lyme Vaccination ("borrelia burgdorferi bacterin duramune lyme") "borrelia burgdorferi"
Bordetella Vaccination

The first thing to know when your dog tests positive for Lyme disease is that this test merely identifies dogs that have been exposed to the organism that can cause Lyme disease, not the illness itself. Some time since, or just prior to, the last test, your dog was bitten by a tick that harbored the Lyme bacteria, Borrelia burgdorferi. According to a study at Cornell University, 94% of dogs that have been exposed will never develop disease symptoms. This means a positive test is not the end of the world.

At River Cove Animal Hospital we do not recommend treatment if your dog merely tests positive and is not sick. **We stand very little to gain with a prolonged course of antibiotics as treatment is typically not successful in eradicating the organism from the body.** Though treatment is very successful in eliminating clinical signs in those that are sick it cannot eliminate the infection completely, as the organism is very good at hiding. Thus dogs testing positive will remain positive for years if not forever. Some veterinarians advocate treatment in all cases, even those that test positive but are asymptomatic, in hopes of preventing illness prior to the onset of signs. Since only 5 % of exposed animals get sick, we feel it is unnecessary and the side effects of over using antibiotics are greater than the risk of disease itself.

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When clinical signs do occur, they typically:

- start about two months after the infection.
- Signs include lameness (limping or abnormal walking/running behavior), arthritis in one or multiple joints, enlarged lymph nodes, lethargy (weakness), and fever.
- Skin lesions are very rare in dogs.

The clinical signs of Lyme disease are treated with antibiotics, and often the symptoms will resolve within three days of therapy.

A tetracycline antibiotic called **doxycycline** is the **most common antibiotic that is used to treat Lyme disease.**

A dog that tests positive for the Lyme bacteria on a blood test, however, doesn't necessarily have Lyme disease and don't necessarily need to be treated.

Veterinarians will routinely screen for exposure to Lyme bacteria. (Often this test is done in conjunction with screening for exposure to heartworm disease and other tick borne diseases.)

The most common test that veterinarians perform is an antibody test.

This test tells us if antibodies against the Lyme bacteria are present in the blood. If this test is positive, it means that your dog has been exposed to the Lyme bacteria and has mounted an immune response to the bacteria, producing antibodies to it.

A positive test does not indicate that there is an “active” Lyme infection, only that the pet was exposed/infected in the past. Previous vaccination for Lyme disease does not interfere with these test results (a vaccinated dog will not be positive for Lyme simply because it has received the Lyme vaccine in the past). It takes a few weeks from the time of exposure for the development of a positive antibody Lyme test.

It is important to know that many dogs that are positive for antibodies against Lyme infection will never develop any clinical symptoms (remember only about 10 percent show obvious signs).

When the test comes back positive, it doesn't mean that your dog has Lyme Disease, it means that your dog has been exposed to the Lyme bacteria. You and your veterinarian will need to make a decision about what, if any action, should take place if this test shows up positive.

It is also important to know that there is not consensus in the veterinary community about how to manage a pet that is positive on the test and not showing clinical signs of Lyme disease.

The information provided below is what I recommend for my patients in the situation of a positive test in an otherwise healthy dog.

— I recommend screening for possible kidney problems. The Lyme bacteria can create infection, but can also cause autoimmune problems in the dog.

A severe autoimmune problem secondary to exposure to Lyme bacteria is called

“Lyme Nephritis.” In this disease, the filtering mechanism of the kidney, called the glomerulus is compromised. The glomerulus is like a sieve, with holes in the sieve to filter out waste that needs to be excreted in the urine.

This is a very serious condition because the body sometimes can not keep up with the loss of protein through the kidneys, and the pet can become very ill and eventually die from this disease.

I recommend that all dogs that are newly diagnosed as positive on a Lyme test be screened for excessive protein loss in the urine through a test called the Urine Protein Creatinine ratio, or UPC. If this test comes back positive, then more testing and treatment will likely follow. If the test is negative, then I move on to the recommendations below.

— I recommend that all dogs that have been exposed to Lyme bacteria be on a tick preventative either year round

— I recommend that as a family, you review how to keep yourself safe from tick diseases.

At River Cove Animal Hospital we recommend evaluating a urine sample for small amounts of protein in all dogs that test positive for Lyme disease to determine if the kidneys have been affected. If found, treatment and monitoring can often be started before serious renal issue

arise. At this time we recommend testing the urine annually in individuals that recurrently test positive.

Points to Remember When Your Dog Tests Positive for Lyme Disease:

- 1) A Lyme positive test identifies exposure not illness; 95% never get sick.
- 2) Treatment is only indicated in individuals exhibiting clinical signs.
- 3) Monitor for limping, swollen joints, lethargy and decreased appetite and contact us at River Cove Animal Hospital if any of these signs arise.
- 4) Evaluating a urine sample for protein on an annual basis is important to rule out underlying kidney damage before signs arise.
- 5) Your dog does not pose a risk to you or your family.
- 6) Continued tick prevention to limit further exposure is very important. Daily tick checks, prompt tick removal and using and staying current with the best tick preventatives are the mainstays of preventing Lyme disease in your dog.