



Canton Animal Clinic
2750 State Highway 68
Canton, NY 13617
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Your Dog and Lyme Disease



Lyme disease was first discovered in 1975, in Lyme, Connecticut. It has since slowly moved along the eastern seaboard, moving inland, and now is endemic in our area. Last year, 1 in 5 dogs tested at Canton Animal Clinic were positive for antibodies to Lyme Disease.

TRANSMISSION



Lyme Disease is a bacterial infection of a spirochete organism (*Borrelia burgdorferi*) transmitted through the bite of an infected deer tick (*Ixodes scapularis*). The infected tick must be attached to the host (dog, person, and other mammals) for at least 48 hours to transmit *B. burgdorferi*. If the tick is removed prior to that,

transmission will not occur. Infected animals serve as a reservoir for other biting ticks, but luckily do not pose a threat for transmission to other members of the household. Other domestic animals including cats and horses can become infected with Lyme disease, but the disease seems to be clinically insignificant.

CLINICAL SIGNS

Lyme Disease has many different symptoms. Generally, these clinical signs are observed 2-5 months after the animal has been bitten by an infected deer tick. Animals may exhibit one or many of the following: fever, lethargy or low energy, depression, lameness, sometimes shifting from one leg to another, swollen and painful joints, swollen lymph nodes and decreased appetite. In more serious cases, the disease may affect the animal's heart, kidneys or central nervous system.

DIAGNOSIS



Veterinarians can run a simple in house blood test called the 4DX which tests for all endemic blood parasites including Lyme, Heartworm, and 2 other tick transmitted diseases- Anaplasma and Ehrlichia.

This test takes about 10 minutes. When testing for Lyme, the test looks for antibodies to a specific outer surface protein, the C6 peptide of the *Borrelia* organism. This peptide is constant and always detectable, so vaccinated dogs will not test positive and dogs with other infections will not erroneously test positive either. Therefore, a positive sample is a dog that has been exposed to Lyme. However, it does not differentiate exposure from active infection. A quantitative C6 blood sample can be submitted to an outside lab to determine how high the antibody titer is, and therefore help in determining if treatment is necessary. Additionally, because Lyme Disease can affect the kidneys, we recommend evaluation of urine and blood to evaluate the renal system.

TREATMENT

Generally, Lyme Disease positive animals are treated as out patients unless they are severely affected. Treatment utilizes a 4 week course of antibiotic either Doxycycline or Amoxicillin. Doxycycline is the antibiotic of choice because it can also eradicate other tick diseases that the animal may have concurrently. At home, the dog should be kept quiet, warm and comfortable until the clinical signs

improve. Usually, they are feeling better in 2-3 days. If there is no improvement on the antibiotics, the dog needs to go back to the veterinarian for further evaluation and testing. Sometimes pain medications are also administered. Do not give your pet medication unless prescribed by your veterinarian. Unfortunately, sometimes the joint arthritis caused by Lyme infection may not resolve completely, and long-term joint pain may occur.

PREVENTION

The deer tick is a blood sucking parasite, so tick control on the host is the key to avoiding Lyme Disease. There are multiple effective products for tick prevention available through Canton Animal Clinic including: Advantix, Frontline, Vectra, and the new Scalibor tick collar. All of these products either repel or kill the tick within the first 48 hours so the *Borellia* organism can not be transmitted to the dog. Unfortunately, none of these products are suitable for your feline and should never be used on a cat.



People living in tick endemic areas should check their pets daily for attached ticks. To remove an attached tick, use a pair of tweezers, or a special tick removing instrument like the "Tick off," which is also available at Canton Animal Clinic, to aid removal.

- Grab the tick where it is attached to the skin. Do not grab it by its body, especially if it is blood engorged.



- Pull gently and steadily outward

- Discard the tick in a container of rubbing alcohol. Do not squish the tick as this will release the blood parasite organisms on your skin

- Wash your hands thoroughly

- You may notice a raised area on the skin of your animal. This is a normal reaction to the cement like saliva of the tick. This will resolve with time (1-2 weeks). You can apply some topical hydrocortisone or antibiotic cream as long as the dog does not just lick it back off. Rarely a permanent hairless scar will form.

Note: Burnt matches, rubbing alcohol, petroleum jelly (vasoline) and other home remedy tick removers do not work and may actually allow the tick to deposit more disease causing *Borellia* organisms into the host animal.

VACCINE



As with any vaccine, the debate is to vaccinate or not. Tick prevention is the best way to avoid Lyme disease. We recommend that animals that live in endemic areas that have exposure to ticks are vaccinated for Lyme disease. Canton Animal Clinic uses **Nobivac** Lyme vaccine, manufactured by Intervet

Schering-Plough Animal Health. **Nobivac** Lyme is a bacterin that contains two separate strains of inactivated *Borrelia burgdorferi* outer surface proteins, so it protects against Lyme disease in two different phases of infection. The Lyme vaccine is administered subcutaneously followed by a single booster 3-4 weeks later. It is then part of the annual vaccination series of the dog.

We still recommend either a yearly or biannual 4DX test to screen for other tick diseases like Anaplasma and Ehrlichia.

VETSOURCE



Canton Animal Clinic is now proud to announce that we are partnering with Webster VetSource. Webster VetSource is a leading professional pharmacy provider allowing us to give you our own on-line pharmacy. Canton Animal Clinic actually manages Webster VetSource. VetSource allows us to keep track of all our patients' prescriptions and refills on-line, with the convenience of home delivery for you. Licensed veterinarians, pharmacists and technicians staff the Webster VetSource pharmacy. This ensures product safety and proper medications filled with correct dosing instructions. By using VetSource, there will no longer be a need to drive to the clinic to pick up refills. Your medications can be shipped directly to your doorstep. VetSource offers an auto ship program that automatically ships out your medications to ensure you have them when you need them. VetSource also offers a "Remind

me” program. This option allows you to have single doses of flea products, like Frontline Plus and Advantage, and heartworm preventatives, like Interceptor and Heartgard, delivered on time each month right to your mailbox. The product arrival is the perfect reminder! Webster VetSource is the only veterinarian sponsored home delivery service offering a monthly single dose delivery program. The “Remind me” program also offers free doses. Your sixth dose is free! You can get on-line from home 24/7 to place an order. We can help you get your VetSource account setup at the clinic or we can get you set up over the phone. You can find VetSource on-line by going to cantonanimalclinic.com then clicking on the shop button. Take advantage of Webster VetSource, Canton Animal Clinic’s own on-line pharmacy.

PARVOVIRUS: A DANGEROUS ILLNESS



Parvovirus is a preventable life threatening illness that most commonly affect puppies under 1 year of age. Infected dogs have vomiting, loss of appetite, diarrhea, and lethargy. As the disease progresses they may have bloody diarrhea, severe dehydration, weakness, and, in severe cases, death. Parvovirus is spread in the feces of infected dogs. It is a hardy virus which can exist for long periods of time in the environment.

Puppies will show signs of infection 4-7 days after ingestion and may shed virus for two weeks after becoming infected. After ingestion the virus travels in the blood stream to the epithelial cells lining the villi inside of the intestine. The virus then replicates and ruptures cells which produces diarrhea and vomiting, spreading the virus into the environment. Treatment of parvovirus involves supportive care including prevention of dehydration and sepsis from secondary bacterial infections. Even with the best treatments some dogs may still die due to complications of parvovirus infection.

Prevention is best accomplished through minimizing exposure and vaccinations at 6,9,12, and 16 weeks of age. Vaccines are a safe and effective way to prevent infection, and they are much easier and less expensive than treating the infection. Frequent vaccination at a young age is needed because young animals do not have a fully developed immune system, and are unable to produce sufficient protective levels of antibodies without frequent vaccination. Puppies under 12 weeks should only be exposed to areas that are likely parvovirus free and healthy vaccinated dogs.





K-Laser Therapy
Drug Free
Surgery Free
Pain Free



Canton Animal Clinic is now offering laser therapy. Our new K-laser is the most advanced class IV laser on the market. It is a drug free, surgery free, and pain free treatment option for your pet. Laser therapy can provide pain relief by increasing circulation, drawing water, oxygen, and nutrients to damaged cell areas. This in turn increases healing and mobility and reduces inflammation, swelling, stiffness, pain, and spasms.

Numerous studies show that laser therapy helps with osteoarthritis, joint pain, tendon and ligament injuries, edema, muscle strains, open wounds, post surgical pain, neck and back pain, hip dysplasia, burns, and speedy rehabilitation.

Please ask us for more information about laser therapy or make an appointment today to have your pet evaluated.

The Porcupine



With warm weather approaching, wildlife activity increases. This leads to an increased risk to our dogs, the risk of getting “quilled,” as they venture further from our side and explore on their own. Quills are best removed within 24 hours. Anesthesia is generally needed to properly and safely remove quills. Other concerns are when quills have broken off and are completely buried in the skin. Often this requires surgery, because quills will migrate through the body’s tissue which can be dangerous. Something to expect with an extensive “quilling” is a course of antibiotics due to bacteria introduced into the body by the quills.

If you think your dog’s quills cannot be easily removed at home, please call the office.

Some common myths:

-“Cutting the ends makes the quills easier to pull.” This is not the case. Most of the time, the longer the quill, the easier it is to find, and the easier it is to pull.

-“If I wait long enough the quills should fall out on their own.” Quills only go deeper into tissue as time goes by.

