

Lyme Disease in CT: Fact and Fiction

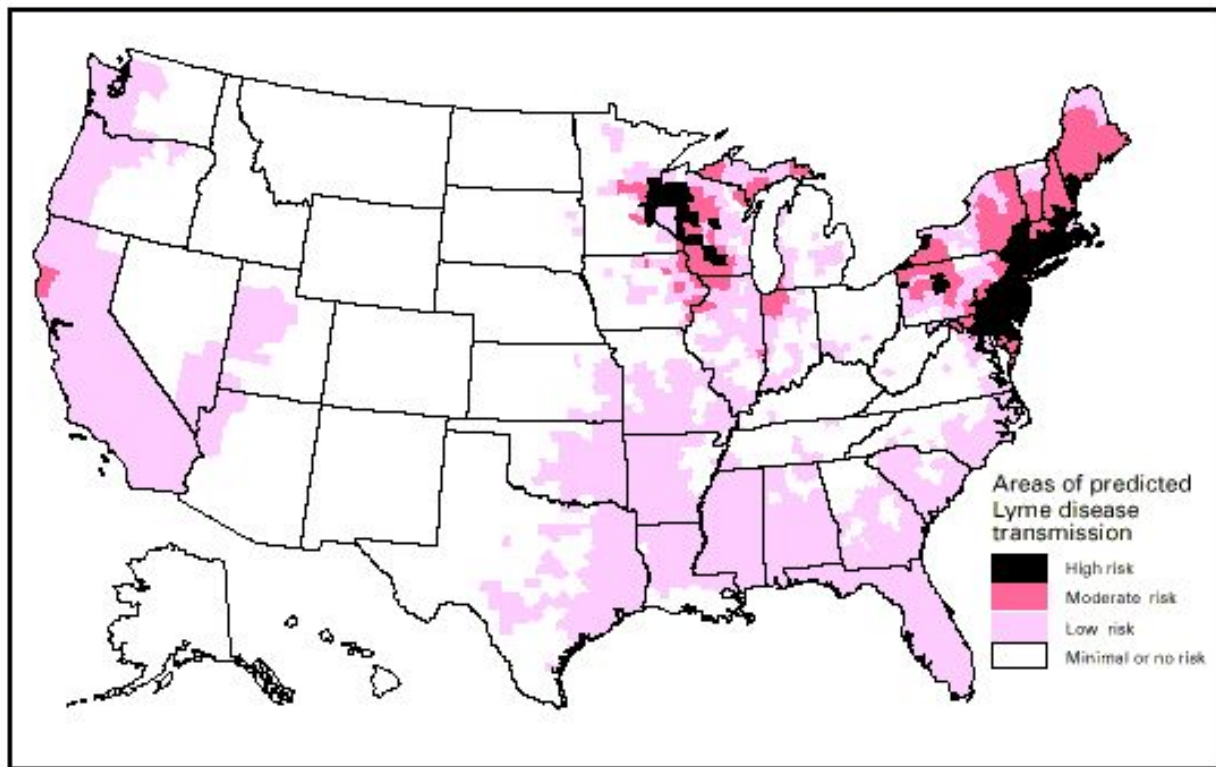
Hudson Valley Golden Retriever Club

May 18th, 2022

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National Lyme disease risk map with four categories of risk



Note: This map demonstrates an approximate distribution of predicted Lyme disease risk in the United States. The true relative risk in any given county compared with other counties might differ from that shown here and might change from year to year. Risk categories are defined in the accompanying text. Information on risk distribution within states and counties is best obtained from state and local public health authorities.

Our topics this evening

Brief review of Lyme disease biology

How Lyme disease is diagnosed and treated

Risks and benefits of some management options

Golden retriever tidbits

Question and Answer

Optional, time permitting: Case presentation and discussion



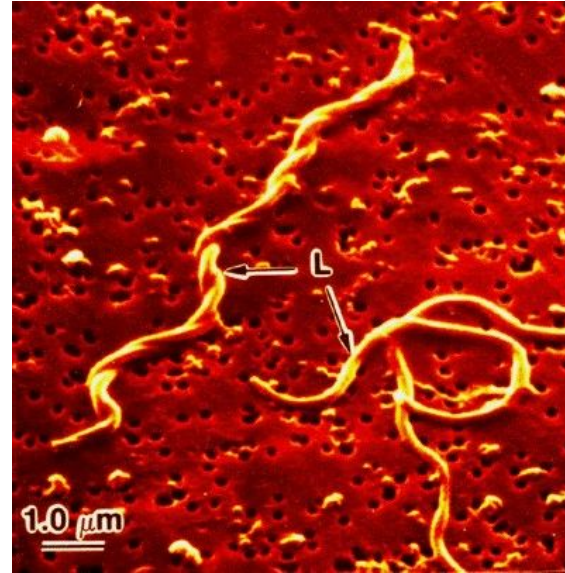
Lyme Disease

Caused by: *Borrelia burgdorferi*,
spirochete bacteria

Transmitted by tick bite only

Lyme NOT “Lyme’s”

Causes joint pain, fever, malaise, in some
cases generalized organ disease (kidney,
heart, nervous system)



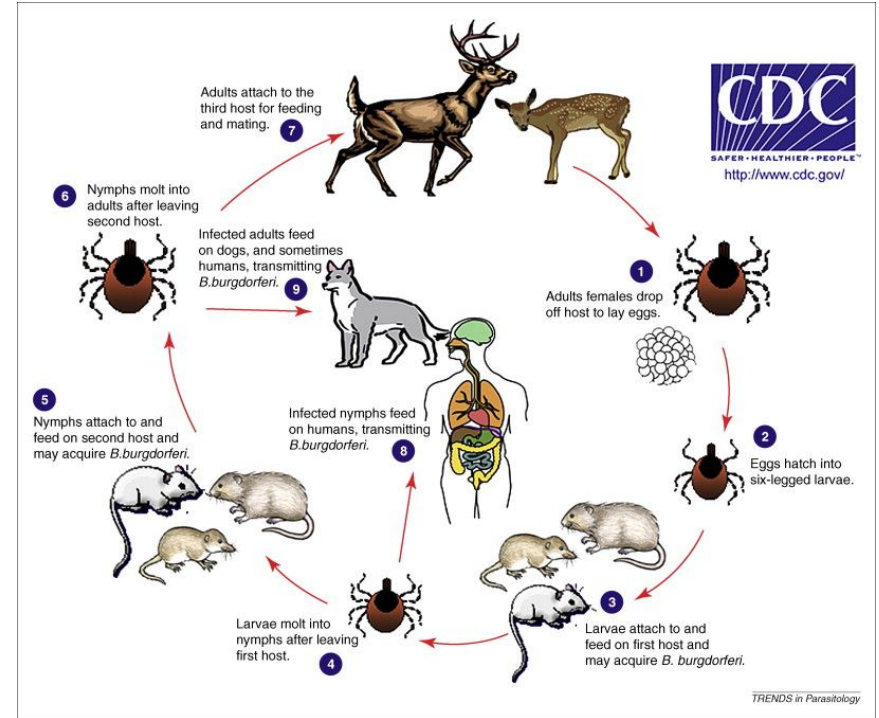
Tick Tips

Ticks need at least 24 hrs of attachment to transmit the bacteria

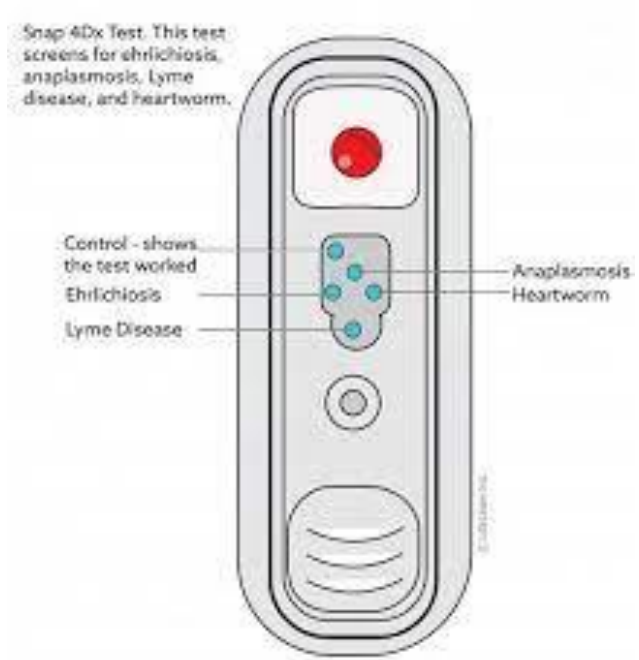
Ticks have a complex life cycle (other hosts include rodents, deer)

Ticks thrive in tall grass and leaf litter

Ticks become dormant in winter but do not die



Does my dog have Lyme disease?



4Dx Snap-test

- Heartworm antigen (*Dirofilaria immitis*)
- Lyme disease antibody (*Borrelia burgdorferi*)
- Anaplasmosis antibody (*Anaplasma phagocytophilum*)
- Ehrlichiosis antibody (*E. canis*)

“Of dogs exposed to *B. burgdorferi*, 90-95% remain asymptomatic.”

Challenges with Lyme testing

Diagnosis – problematic

False negatives in sick animals
Positives in healthy animals
Persistent titers after treatment

Antibody testing:

Idexx Snap test
C6 test (quantitative)
Western blot, paired



Antigen testing: DNA testing on body fluids (Polymerase Chain Reaction)

Are you testing for DISEASE or PRIOR EXPOSURE? ACH

Sick dog with acute Lyme disease

Will not want to move

Will not want to eat

Probably has a fever

One or more joints swollen
and painful

May or may not have skin
rash



Borrelia burgdorferi- human



Holistic approach to Lyme disease prevention

Environmental management

Manual surveillance

Optimize healthy immune system

Judicious use of repellents and pesticides

Vaccine options



Tick “questing” on blade of grass

<https://youtu.be/gGa6AkriVFw>



Tick removal: Yes



http://www.cdc.gov/ticks/removing_a_tick.html

No



What's the best gas you can put in the tank?

Minimally processed foods

Vitamins and supplements

Plenty of exercise

Living beings have innate healing abilities



What is health?

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.



**World Health
Organization**

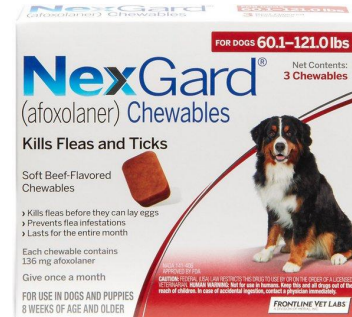
External Tick Repellants and Pesticides

ALL have some protective benefit

ALL have some risk

Considerations:

- Health of animal
- Time of year
- Risks of exposure
- Ease of removal if adverse effects
- Time investment



Lyme vaccine(s)

- Non-core vaccine
- Relatively short duration of immunity
- Adverse reactions may include Lyme-like symptoms
- Not 100% protective
- Controversial: vaccinating Lyme positive animals
- An option for high-risk animals in endemic areas



Lyme Nephritis

- Serious manifestation of Lyme disease, sometimes fatal
- Immune mediated
- Early signs may include protein in the urine or elevated SDMA (blood test for kidney function)
- Golden retrievers and labrador retrievers may be at increased risk - not conclusive

“ Lyme nephritis develops in <1-2% of Lyme seropositive dogs.”

Golden retriever challenges

Possibly increased susceptibility

Stoic, people-pleasing breed

Coat makes tick detection difficult

Size makes feeding unprocessed food
expensive

Pure-bred immune system vulnerability



Lyme disease treatment

Antibiotics - usually doxycycline, amoxicillin or cephalosporin for several weeks

Pain management - NSAIDs

Complementary and alternative medicine



References and Links

Center for Disease Control <https://www.cdc.gov/lyme/index.html>

Merck Veterinary Manual

<https://www.merckvetmanual.com/generalized-conditions/lyme-borreliosis/lyme-borreliosis-in-animals>

Veterinary Information Network

Borreliosis Diagnosis & Treatment

November 9, 2015 (published) | July 6, 2017 (revised)

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Lyme Disease (Zoonotic) (Canine), Last updated on 2/14/2019

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Original content, Anne C. Hermans DVM, CVH (www.vethomeopath.com)

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Thank you!



Questions?

Lyme Disease Case

Signalment: FS cockapoo, 8 years old. On Blue Buffalo kibble, some fresh food, supplements.

History: Rescue dog since puppyhood, core vaccines only. Respiratory issues as a puppy, treated homeopathically.

May 2018: Treated for Lyme disease with antibiotics for 6 weeks, including hospitalization. Lameness recurred and is on doxycycline again, for a total of 8 weeks.

Owner concerned about severity of disease, refractory nature, and likelihood of recurrence.

Plan: finish antibiotics, hold Ledum 30C.

Talking points: Is this acute or chronic disease? Why not the remedy and antibiotics at the same time? Why not try a different antibiotic?

Lyme Disease Case, continued

June 2018: Limping, lethargy and inappetence returned the day after the antibiotics were discontinued. Owner gave Ledum 30C one time, responded 100%, back to normal within 24 hrs.

Plan: repeat Ledum 30C based on return of symptoms, increase to Ledum 200C if 30C not fully effective. Recheck in one month for constitutional follow-up.

August 2018: Required three doses of Ledum 30C, responded well every time. No further antibiotics or conventional medications.

Plan: Give Sulphur 30C once time as a constitutional “tune-up” and resolution of the disease.

Spring 2022: no further recurrence of Lyme disease. Doing well.

Talking points: Why is constitutional follow-up needed? Do we think this dog just got better on her own?