



Lyme Disease¹

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Lyme disease was first documented in the United States in 1975. The organism that causes Lyme disease is transmitted by the bite of a tick. Lyme disease is named for the town in Connecticut where some of the first cases in the U.S. occurred. Lyme disease cases have since been documented in about 43 states, with over 2,000 cases annually. Several cases of Lyme disease have been reported in Florida.

The primary vectors of Lyme disease in the U.S. are thought to be the northern deer tick (*Ixodes dammini*) in the North and the black-legged deer tick (*Ixodes scapularis*) in the South. Other ticks are also known to transmit the disease. Lyme disease is maintained in wild rodent populations, on which the immature ticks develop. These immature ticks pick up the disease organism when they suck the blood of infected rodents. The adult ticks then look for a larger host, such as deer or humans, to get their final blood meal and transmit the disease when they feed.

SYMPTOMS

The first sign of Lyme disease in 60-80% of patients is a red circular rash around the puncture mark made where the tick pierced the skin. The most common shape of the rash is an oval 2-3 inches in diameter that usually lasts about 4 weeks. The rash does not itch but may feel warm to the touch. Flu-like symptoms may also develop that often include aches, fever, fatigue, muscle pain, joint pain, and

headache. Arthritis, cardiac disease, and neurologic disorders may develop if the disease is not properly or promptly treated. Sometimes these more serious symptoms develop without the individual ever having a rash.

TREATMENT

Once diagnosed, Lyme disease can be treated. Physicians can determine if an individual has been infected by the Lyme disease organism using a simple blood test; however, some people test negative but have the disease. Infection can be treated by taking certain antibiotics. However, no immunity is conferred from infection so a person could get Lyme disease again from another bite of an infected tick.

Pets and other animals can contract Lyme disease as well, exhibiting symptoms similar to those in humans. Veterinarians can test for Lyme disease in pets and domestic animals exhibiting suspicious signs of arthritis (in younger animals), heart problems, or neurological signs.

PREVENTION

The best prevention against Lyme disease is to avoid being bitten by ticks. Individuals who spend a lot of time outdoors should be aware of the danger and make it a habit to regularly check their bodies for ticks. The tick requires time to attach itself and begin

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feeding. It is possible to remove ticks before they are able to transmit the disease. Ticks should be grasped with tweezers at the point where their mouthparts enter the skin and pulled straight out with firm pressure. Immature ticks are small and difficult to detect; often they appear as a freckle or mole.

1. Stay out of dense undergrowth unless absolutely necessary. Walk on closely mowed grass or paved walkways whenever possible.
2. Wear long-sleeved shirts and long pants tucked into socks. Light-colored clothes make ticks more visible and easier to pick off.
3. Apply tick repellent to socks and shoes to prevent ticks from crawling onto clothing.
4. Inspect yourself and others thoroughly after walking through areas suspected of being infested with ticks.
5. When taking children on nature outings, keep them in a group with a leader who knows to avoid tick infested areas and can inspect them for ticks.

6. See a doctor if Lyme disease symptoms appear.

CONTROL

Recommendations for control of ticks include:

1. Keep grass cut low to prevent ticks from developing.
2. Discourage wild animals (raccoons, skunks, deer, mice, etc.) from coming around your yard. They often harbor the ticks which transmit Lyme disease.
3. Area treatment with insecticides is not warranted in most cases. However, in some situations it might be appropriate to use insecticides for control of ticks. Check with your county extension office for current IFAS recommendations.