



LYME DISEASE

Lyme disease is caused by a bacterium, *Borrelia burgdorferi*. In New England it is transmitted by a certain type of tick, commonly called the deer tick or black-legged tick (scientific name: *Ixodes scapularis*). Lyme disease may cause symptoms affecting the skin, nervous system, heart and/or joints of an individual. The NH Department of Health & Health Services made Lyme disease reportable in October 1990. During recent years, the incidence of Lyme disease has increased in New Hampshire.

Who gets this disease?

The bacterium that causes Lyme disease is transmitted within the natural cycle of the deer tick, which feed on animals such as mice, opossums, dogs and deer. Certain stages of the tick – especially the nymph and adult – can feed on a human; if the tick is infected with the bacteria it can cause infection in people. Cases of Lyme disease have also been reported in domestic animals. There is no evidence that Lyme disease is transmitted from person to person. For example, a person cannot get infected from touching, kissing, or having sex with a person who has Lyme disease. Lyme disease acquired during pregnancy may lead to infection of the placenta and possible stillbirth. However, no negative effects on the fetus have been found when the mother receives appropriate antibiotic treatment. There are no reports of Lyme disease transmission from breast milk.

People who spend time in wooded or grassy areas, including areas around the home, are at greater risk of Lyme disease. Although persons of all ages and gender are susceptible to Lyme disease, it is most common among children aged 5-9 and adults aged 55-59. Most cases of Lyme disease occur between April and October. Current data indicates that it is possible for someone to get Lyme disease more than once.

What are the symptoms?

The illness usually occurs during the summer months and generally starts as a large circular reddish expanding rash around or near the site of the tick bite. (NOTE: In some cases, a rash may not occur). Multiple rash sites may occur. During the rash stage, or occasionally prior to the rash, other symptoms such as fever, headache, fatigue, stiff neck and muscle and/or joint pain may be present. These may last for several weeks. If left untreated – within a few weeks to months after the rash onset – complications such as meningitis and heart abnormalities may occur and other body systems may be affected. Swelling and pain in the large joints may recur over many months or years.

How soon do symptoms appear?

Symptoms usually begin within a month of a tick bite, generally 3-32 days.

What is the treatment?

Current therapy includes the use of antibiotics. Early diagnosis improves the outcome of treatment.

How can the spread of this disease be prevented?

Special precautions to prevent exposure to ticks should be used. Apply insect repellent containing greater than 20% DEET, on clothes and exposed skin. Clothes (especially pants, socks, and shoes) may be treated with permethrin, which kills ticks on contact. Permethrin can also be used on tents and some camping gear. **Do not use permethrin directly on skin.** Always follow the manufacturer's instructions when applying any repellents. Long pants and long sleeves help keep ticks off skin. Pant legs may be tucked into socks or boots and shirt into pants to keep ticks on the outside of clothing. After being outdoors, wash and dry clothing at a high temperature to kill any

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ticks that may remain on clothing. Perform tick checks after being outdoors. Early removal of ticks can reduce the risk of infection. If a tick is attached to the skin for less than 24 hours, the chance of getting Lyme disease is extremely small. Landscaping to reduce tick habitats and prevent deer and rodents around the home may be helpful.

How should a tick be removed?

To remove an attached tick, grasp it with one of the tick-removal tools found in stores or fine-tipped tweezers as close as possible to the attachment site (i.e., skin) and pull upward and out with a firm and steady pressure.

Do not handle the tick with bare hands, if using your fingers to remove a tick be sure to use a disposable towel when removing the tick. Be careful not to squeeze, crush, or puncture the body of the tick, which may contain infectious fluids. After removing the tick, thoroughly cleanse the area with an antiseptic. Seek medical attention if there is a concern about incomplete tick removal.

Do not attempt to remove ticks by using Vaseline, lit cigarettes, or other home remedies; doing so may actually increase the chances of contracting a tick-borne disease.

Who should be excluded?

Exclusion is not necessary since the disease is not spread from person-to-person.

Reportable?

Yes. Lyme disease is reportable by New Hampshire law to the Division of Public Health Services, Bureau of Infectious Disease Control at (603) 271-4496.