

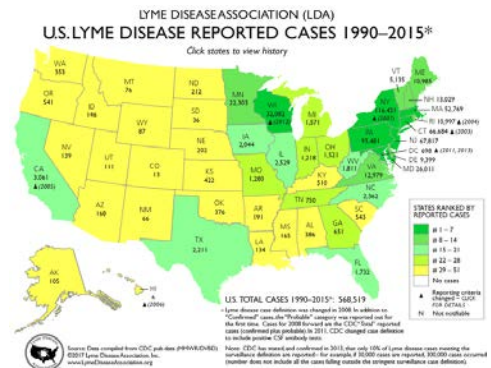


Lyme disease is caused by a spiral-shaped bacteria, *Borrelia burgdorferi* (Bb), or by newly discovered *Borrelia mayonii*. It is usually transmitted by the bite of an infected tick—*Ixodes scapularis* in the East, *Ixodes pacificus* in the West. The longer a tick is attached, the greater risk of disease transmission. Improper removal increases risk of infection. Go to www.LymeDiseaseAssociation.org for details.

1. Lyme is the most prevalent vector-borne disease in the USA. The ticks that cause Lyme are now found in 50% of US counties. It's found in more than 80 countries worldwide.
2. According to the Centers for Disease Control & Prevention (CDC), only 10% of Lyme disease cases are reported each year. So in 2015, about 400,000 new cases of Lyme occurred in the USA. In 2009, CDC said the incidence of Lyme surpassed that of HIV.



3. One bite from *Ixodes scapularis* (western blacklegged/deer tick) can transmit one or more: Lyme, babesiosis, anaplasmosis, tularemia, ehrlichiosis, bartonellosis, *Borrelia miyamotoi*, tick paralysis, Powassan virus, clouding diagnostic/treatment picture.
4. Lyme disease is often called the "Great Imitator." It may be misdiagnosed as; multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS), lupus, chronic fatigue, fibromyalgia, autism, Alzheimer's, Parkinson's disease and other conditions.



5. A bite from a tick that's infected with Lyme disease bacteria can lead to neurologic, cardiac, arthritic and psychiatric manifestations in humans. It may cause death, sometimes cardiac related.
6. Children account for 30% of Lyme cases: ages 5-14 are at the highest risk. A Columbia University study shows a significant IQ drop in a student with Lyme, reversed after treatment.
7. Laboratory tests for Lyme disease are not reliable, about 50% accurate; you can test negative and still have Lyme disease.
8. The Lyme bacteria can cross the placenta, infect the fetus, possibly cause birth defects and CDC says can result in fetal death, especially in untreated mothers. The Lyme bacteria's DNA has been found in human breast milk, no transmission has been shown. *Borrelia in a fetal brain, courtesy of A. MacDonald, MD.*
9. *Borrelia burgdorferi*, Bb, the Lyme bacteria, has not been found to be transmitted through the blood supply. However, a CDC study shows it is possible in mice under lab conditions, and other studies show Bb can survive blood banking conditions. *Babesia* can be transmitted through the blood supply.
10. About 50% may get a rash with Lyme disease, but only 9% get the classic bull's eye rash. Symptoms may occur days or months after a tick bite. Rash at other than bite site may be disseminated disease.



This material is presented to provide practical & useful information on the subject matter covered. It is being presented with the understanding that LDA is not engaged in rendering medical or other professional services. If medical or other expert assistance is required, the services of a licensed physician should be sought. If you chose to use preventive products on yourself or your pets, carefully read and follow your medical professional and manufactures' suggestions. Do not alter this material.