

LYME DISEASE HEALTH ALERT

Lyme Disease Foundation

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WHAT CAUSES LYME DISEASE?

Lyme disease is caused by a corkscrew-shaped bacterium called *Borrelia burgdorferi* which is transmitted to humans and animals through the bite of an infected tick. The disease is transmitted by two types of ticks: the western black-legged tick, the black-legged ("deer") tick. The lone star tick is potential vector. The bacterium which causes Lyme disease was discovered in 1981 by government (NIH) researcher & LDF Board member, Willy Burgdorfer, Ph.D., MD (hon.). Contrary to popular belief, Lyme disease is not a "new" disease. A skin condition caused by *Borrelia burgdorferi* was first described in a European scientific journal in 1883, with the first U.S. medical publication on the illness in 1899.

HOW WIDESPREAD IS LYME DISEASE?

Lyme disease cases have been reported by every state and many countries. To date, more than **345,000 cases** have been reported to the government from states throughout the U.S. This represents about 10% of total cases due to underreporting.

WHAT DO THE TICKS THAT TRANSMIT LYME DISEASE LOOK LIKE?

The ticks that transmit Lyme disease can range from the size of a pinhead to the size of a raisin and have four life stages: egg, larva, nymph, and adult. They are only "active" and capable of transmitting infection during the larva, nymph, and female adult stages. Tick larvae are about the size of a pinhead and are rarely infected. The larva takes a blood meal on a host animal, sometimes acquiring the infection from its host. Then, it molts into the next life stage - the nymph. A nymph is about the size of an "o." Because of its small size it is easily missed during a tick-check, making it the most dangerous of tick stages. After a nymph takes a blood meal, where if it is not already infected it can acquire the infection from an infected host, it molts into an adult tick. Adult ticks range from the size of a large "O" to the size of a large plump raisin when the female is engorged. Only the female can transmit the infection and rarely passes it to its eggs. Careful and prompt tick removal can significantly reduce your chance of becoming infected.

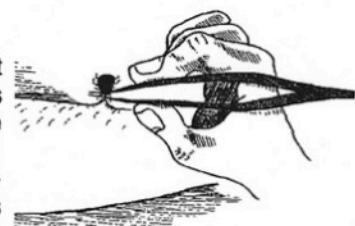


WHAT PRECAUTIONS CAN I TAKE AGAINST LYME DISEASE?

Ticks do not jump or fly, they wait on low vegetation and cling to hosts as they pass by. The best way to prevent exposure to ticks is to wear light-colored clothing with long sleeves and long pants when you venture into grassy, woody, garden or beach areas. Tucking your shirt into your pants and your pants into your socks will thwart a tick's effort to crawl onto your skin. Avoid going barefoot. Use EPA approved tick repellents (either "natural" or "deet" based) to help keep ticks off of your skin and clothing. Do not apply deet to the skin of babies or toddlers, instead, spray their clothing. Make sure to conduct daily tick checks on yourself, your children, and your pets. A tick check includes a visual inspection of clothes and exposed skin, followed by a thorough examination in a private location.

WHAT SHOULD I DO IF SOMEONE IS BITTEN BY A TICK?

Using fine-point tweezers, grasp the tick as close to the skin as possible and gently pull it straight out. Ticks don't detach easily, so be patient. Ticks produce a "cement" that adheres them to the host, so ticks cannot voluntarily detach. Do not crush or burn the tick, as the release of infected juices may transmit the disease. Suffocating the tick is also ineffective, because ticks have enough oxygen to last through the entire feeding. After removal, disinfect the bite site and tweezers. Place the tick in a small pill vial labeled with the patients name, date, and body part bitten. Consult your physician/veterinarian regarding treatment on tick bite and possible testing of the tick. Send \$1 and a self-addressed stamped business size envelope to the LDF to receive our *General* brochure (which has tick pictures & human symptoms) or *Pets & Lyme* brochure.



WHAT ARE THE SYMPTOMS OF LYME DISEASE?

The early symptoms of Lyme disease mimic manifestations of a wide variety of illnesses and diseases. The initial tick-bite is usually painless. About 60% of light-skinned people who have been infected develop a rash which typically begins as a reddish area and then expands. This rash may look more like a bruise on people with darker skin. Some rashes may develop rings which may appear around the original rash. The rash is sometimes described as creating a burning (rather than an itching) sensation and is warm to the touch. Other symptoms include headaches, muscle aches, sore throat, nausea, fatigue, joint swelling/pain, fever, and stiff neck. Without treatment, these symptoms will usually disappear, only to be replaced with more serious conditions. Lyme disease can affect any system in the body, causing skin, heart, nerve, brain or joint problems. The Lyme disease bacterium can cross the placenta and infect the fetus.

WHAT IS THE TREATMENT FOR LYME DISEASE?

It is vital to get help early. So, if you suspect you have Lyme disease, then contact your physician or veterinarian. Prompt and appropriate antibiotic treatment is effective in preventing the progression of the disease and the development of complications. Treatment is by antibiotics in the form of pills, shots, or intravenous fluid.

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