

LYME DISEASE PREVENTION

- Check if you are visiting a high-risk area with a high number of reported cases. (Suggested resource: <http://www.cdc.gov/lyme/stats/maps/interactiveMaps.html>).
- During the warmer seasons when tick nymphs feed, try to avoid moist and humid areas, woody and bushy areas, or areas with high grass and leaf piles.
- Walk in the center of the trails.
- If you are in an area with ticks, wear light-colored clothing so ticks can be seen more easily and removed before attaching.
- Wear long pants and tuck them into boots or socks. Also, tuck shirts in.
- Use insect repellent with DEET when out in tick-infested areas. Follow the instructions when applying insect repellent to the skin. Repellents with permethrin should only be applied to clothing.
- Thoroughly check for ticks during and up to three days after activities in tick-infested areas. Remove any attached ticks promptly.
- Consult your veterinarian for use of tick control products.

Prompt removal of ticks can prevent transmission of the disease.

TICK REMOVAL

1. Using fine-tipped tweezers, grasp the tick's mouthparts as close to the skin as possible.
2. Gently pull the tick straight out with a firm, steady motion.
3. Wash your hands and the bite site with soap and water.
4. Cleanse the bite area with an antiseptic.

References: Center for Disease Control <http://www.cdc.gov/lyme/>

Images courtesy of the CDC. 2012.



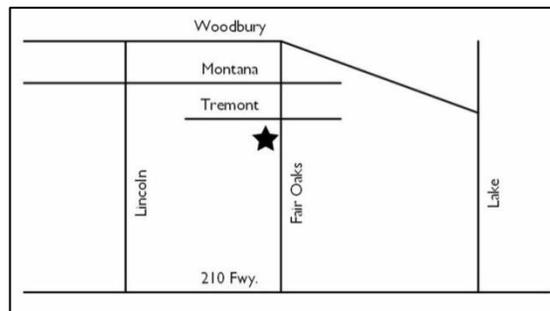
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LYME DISEASE



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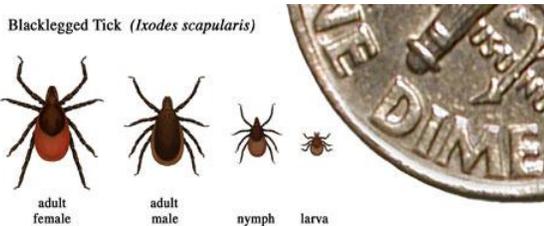
WHAT IS LYME DISEASE?

Lyme disease is a bacterial, infectious disease caused by *Borrelia burgdorferi* found in certain infected ticks. The infected western blacklegged tick or deer tick (*Ixodes pacificus*) spreads this disease on the West Coast.

HOW IS LYME DISEASE SPREAD?

Lyme disease is transmitted by the bite of an infected western blacklegged tick. These ticks are smaller than the domestic pet tick.

The tick has three life stages: larva, nymph, and adult. The larva and nymph feed on the blood of small rodents, rabbits, lizards, birds, and sometimes large mammals. Adults feed on the blood of large mammals, especially deer. Adult ticks measure between 1/6 and 1/8 inches in length and the nymphal form is <1mm or about the size of a poppy seed.



Ticks can attach to any part of the human body but are often found in hard-to-see areas such as the groin, armpits, and scalp. Infection with Lyme disease usually does not occur until the tick has been attached for 24 hours or more.

Both the adults and nymphs can pass the disease to humans. Nymphs are more likely to spread Lyme disease because their small size makes them more difficult to spot.

Ticks usually live in cool, moist areas, and can also be found around wild grasses and low vegetation in both rural and urban areas. Nymphs prefer low, moist vegetation like leaf piles and logs.

WHAT ARE THE SYMPTOMS OF LYME DISEASE?

Lyme disease can affect all parts of the body. The early stages usually begin with an expanding, red rash on the bite site, and look like a "bull's-eye" or target. This rash, called erythema migrans (EM), appears about 3-32 days after the bite of an infected tick. One or more EM rashes can occur, not necessarily at the bite area.



Flu-like symptoms also occur within the early stages. Chills, fever, headache, swollen lymph nodes, weak muscles, and heart irregularities are also early signs of Lyme disease.

If left untreated, symptoms include:

- EM on other parts of the body
- Loss of facial muscle tone
- Severe headaches and stiffness of neck
- Pain and swelling in joints
- Heart palpitations and dizziness
- Shooting pains while sleeping

Later symptoms may include arthritis or joint pains, neurologic problems, and heart problems.

HOW IS LYME DISEASE TREATED?

When identified in the early stages, Lyme disease can be easily treated with oral antibiotics. Intravenous antibiotics may be necessary for patients with late symptoms of Lyme disease.

CAN MY PET GET LYME DISEASE?

Domestic animals may be infected with Lyme disease bacteria. Dogs are more likely to develop arthritis once affected with the disease.

Although dogs and cats can get Lyme disease, there is no evidence that they spread the disease directly to humans.

Pets can carry the infected tick into the home. Veterinary tick control products may help reduce ticks on pets.

ARE THERE OTHER WAYS TO GET LYME DISEASE?

- There is no proof that Lyme disease can be transmitted from one person to another. For example, touching, kissing, or having sex with someone infected with Lyme disease will not spread the disease.
- If Lyme disease is acquired during pregnancy, there have been rare incidences of risk of infection of the placenta and potential stillbirth. However, no negative effects on the fetus have been discovered when the mother undergoes proper antibiotic treatment. Additionally, there are no reports of Lyme disease transmission from breast milk.
- While there are no cases of Lyme disease acquired through blood transfusion, researchers have learned that the Lyme disease bacteria can live in stored blood for donation. Individuals undergoing antibiotic treatment for Lyme disease should not donate blood. Individuals who have completed antibiotic treatment may be considered as potential blood donors.