

# Infection Prevention and You



## Lyme disease

Lyme disease is a bacterial infection that can result from the bite of an infected deer tick also known as blacklegged ticks. Lyme disease was first recognized in the United States in 1975 after an unusual outbreak of arthritis near Lyme, Connecticut.

### What are symptoms of Lyme disease?

Typical symptoms of Lyme disease include fever, headache, fatigue, muscle and joint aches, and swollen lymph nodes. A characteristic skin rash called erythema migrans (EM) occurs in about 70-80 percent of infected persons. EM begins within 3 to 30 days at the site of the tick bite. The average appearance of this rash occurs around seven days after the bite, and it can grow to around 12 inches or more. It may look like a “bullseye” and could feel warm to touch but is rarely itchy or painful.

In a small percentage of cases, symptoms can last for more than six months. This is sometimes referred to as chronic Lyme disease. Some patients may not experience symptoms for weeks or months after the initial bite. Symptoms of ‘late Lyme disease’ include arthritis and pain and swelling of joints, especially the knees.

Other late Lyme disease signs and symptoms include those affecting the nervous system. Other rare symptoms include irregularities of heart rhythm and problems with memory, concentration, and sleep disturbances. Lyme disease is diagnosed based on symptoms as well as the potential for exposure to infected ticks.

### How does Lyme disease spread?

Lyme disease bacteria, *Borrelia burgdorferi*, are spread through the bite of infected ticks. In general, ticks need to be attached for 36-48 hours before they can transmit Lyme disease bacteria. In the U.S., these ticks are found in wooded areas mainly in the northeastern, mid-Atlantic, and north-central states. According to the CDC, 95 percent of confirmed Lyme disease cases were reported from 14 states. It is the most commonly reported vector borne illness in the United States.

### How do you prevent Lyme disease?

Prevention and early recognition of tick bites is key. Persons treated with appropriate antibiotics during the early stages of Lyme disease usually recover rapidly and completely. The risk of exposure to ticks is greatest in the woods and in the space between lawns and the edge of the woods. Ticks can also hitchhike to your lawn and into your house via your pet.

You can decrease your risk of being bitten by a tick by following a few precautions including:

- Avoid tick-infested areas especially during the months of May, June, and July.
- When in a tick-infested area, walk in the center of trails and avoid contact with overgrown grass, brush, and leaf litter at trail edges.
- Use EPA-approved insect repellent that contains a 20 percent concentration of DEET on clothes and on exposed skin.
- Always check for ticks after being outdoors, even after being in your own yard.

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- Bathe or shower after coming indoors to wash off and more easily find ticks that are crawling on your body.

## How do you safely remove a tick?

If you find a tick attached to your body:

- Remove with tweezers.
- Avoid crushing the tick's body.
- Grasp the tick firmly and as close to the skin as possible.
- With a steady motion, pull the tick's body away from the skin.
- Cleanse the area with an antiseptic.
- Do not use petroleum jelly, a hot match, nail polish, or other products.

If you or someone you know suspects Lyme disease, it is important to consult your doctor immediately. For the most up-to-date information about Lyme disease, visit the CDC webpage: <https://www.cdc.gov/lyme/index.html>.

## Additional resources

- The CDC—Lyme Disease <https://www.cdc.gov/lyme/index.html>
- Lymedisease.org—About Lyme disease <https://www.lymedisease.org/lyme-basics/lyme-disease/about-lyme/>
- APIC Infection Prevention and You—Lyme disease <http://professionals.site.apic.org/bugs-and-outbreaks/lyme-disease/>

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