

# Lyme disease

## What is Lyme disease?

Lyme disease is one of many tickborne diseases in Minnesota. It is the most common tickborne disease in Minnesota and the United States. The disease can cause a variety of symptoms that affect many different parts of the body. It is called Lyme disease because it was discovered in the Lyme, Connecticut area in 1975.

## How do people get Lyme disease?

People can get Lyme disease through the bite of a blacklegged tick (deer tick) that is infected with *Borrelia burgdorferi* bacteria. Not all blacklegged ticks carry these bacteria and not all people bitten by a blacklegged tick will get sick. The tick must be attached to a person for at least 24-48 hours before it can spread Lyme disease bacteria.

Blacklegged ticks live on the ground in areas that are wooded or have lots of brush. The ticks search for hosts at or near ground level and grab onto a person or animal as they walk by. Ticks do not jump, fly, or fall from trees.

In Minnesota, the months of April through July and September through October are the greatest risk for being bitten by a blacklegged tick. Risk peaks in June or July every year. Blacklegged ticks are small; adults are about the size of a sesame seed and nymphs (young ticks) are about the size of a poppy seed. Due to their small size, a person may not know they have been bitten by a tick.

## What are the symptoms of Lyme disease?

Early symptoms of Lyme disease usually appear within 30 days of a tick bite. It is common to have a red and sometimes itchy spot, up to the size of a quarter, right after being bitten by a tick. This is due to irritation from the tick's saliva and is not a symptom of Lyme disease. However, contact your doctor if you notice any of the following symptoms:

- **Rash**
  - May look like a bull's-eye, or a red ring with a clear center that may grow to several inches in width
  - May not be itchy or painful
  - Not everyone gets or sees a rash and not all rashes look like a bull's-eye
- **Fever or chills**
- **Muscle or joint pain**
- **Headache**
- **Tiredness or weakness**

If a person is not treated early, one or more of the following symptoms may occur weeks or months later: multiple rashes, paralysis on one side of the face, weakness or numbness in the arms or legs, irregular heartbeat, or swelling in one or more joints.

## How is Lyme disease diagnosed?

If a person suspects Lyme disease, they should contact a doctor as soon as possible for diagnosis and treatment. The diagnosis of Lyme disease is based on a history of exposure to tick habitat and a physical examination to assess for any rash or other symptoms. Laboratory tests may be performed to confirm the diagnosis.

## How is Lyme disease treated?

Lyme disease is treated with antibiotics. Treatment works best early in the disease. Lyme disease detected later is also treatable with antibiotics but symptoms may take longer to go away, even after the antibiotics have killed the Lyme disease bacteria. In most cases, symptoms go away after treatment. It is possible to get Lyme disease more than once so continue to protect yourself from tick bites and contact your doctor if you suspect you may have symptoms of Lyme disease.

## How can I reduce my risk?

There is currently no human vaccine available for Lyme disease. Reducing exposure to ticks is the best defense against tickborne diseases.

### Protect yourself from tick bites:

- Know where ticks live and when they are active.
  - Blacklegged ticks live in wooded or brushy areas.
  - In Minnesota, blacklegged tick activity is greatest from April – July and September – October.
- Use a safe and effective tick repellent if you spend time in or near areas where ticks live. Follow the product label and reapply as directed.
  - Use **DEET**-based repellents (up to 30%) on skin or clothing. Do not use DEET on infants under two months of age.
  - Pre-treat clothing and gear with **permethrin**-based repellents to protect against tick bites for at least two weeks without reapplication. Do not apply permethrin to your skin.
- Wear light-colored clothing to help you spot ticks more easily. Wear long-sleeved shirts and pants to cover exposed skin.

- Tumble dry clothing and gear on high heat for at least 60 minutes after spending time in areas where ticks live.
- Talk with your veterinarian about safe and effective products you can use to protect your pet.

### Check for ticks at least once a day after spending time in areas where ticks live:

- Inspect your entire body closely with a mirror, especially hard-to-see areas such as the groin and armpits.
- Remove ticks as soon as you find one.
- Use tweezers or your fingers to grasp the tick close to its mouth. Pull the tick outward slowly and gently. Clean the area with soap and water.
- Examine your gear and pets for ticks.

### Manage areas where ticks live:

- Mow lawns and trails frequently.
- Remove leaves and brush.
- Create a barrier of wood chips or rocks between mowed lawns and woods.

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