

# Lyme Disease



Lyme disease is an important public health problem in some areas of the United States. Since its discovery in Lyme, CT, in 1975, thousands of cases of the disease have been reported across the United States and around the world. By knowing more about the disease and how to prevent it, you can help keep your family safe from the effects of Lyme disease.

## What is Lyme disease?

Lyme disease is an infection caused by a bacteria called a spirochete. The disease is spread to humans by the bites of deer ticks infected with this bacteria. Deer ticks are tiny black-brown creatures. They live in forests or grassy, wooded, marshy areas near rivers, lakes, or oceans. Many people who have been infected with Lyme disease were bitten by deer ticks while hiking or camping, during other outdoor activities, or even while spending time in their own backyards, from the late spring to early fall.

## Where is Lyme disease most common?

Deer ticks that are infected with Lyme disease live in areas that have very low and high seasonal temperatures and high humidity. In the United States, almost all cases of Lyme disease occur in the following regions:

- Northeast (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont)
- North central states (Michigan, Minnesota, and Wisconsin)
- West Coast (California)

## How will I know if my child has Lyme disease?

The first and most obvious symptom of Lyme disease is a localized rash that begins as a pink or red circle that expands over time and may become several inches or larger. It may appear from 3 to 30 days after the bite occurred.

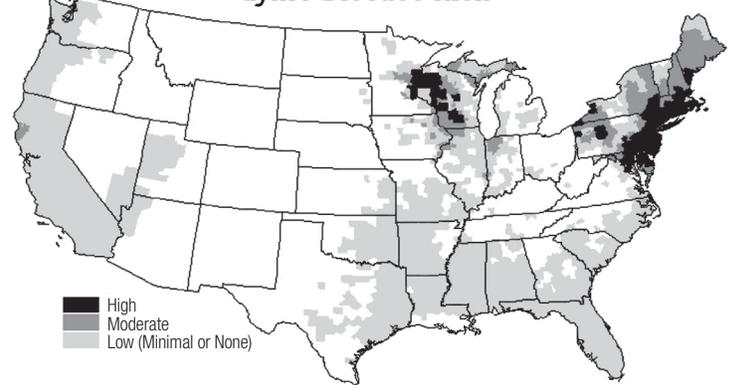
Some people may have a single circle, while others may have many. Most people who develop the rash won't feel anything, but for others the rash may hurt, itch, burn, or feel warm to the touch. The rash most commonly appears on the head, neck, groin, thighs, trunk, and armpits.

A rash may occur without any other symptoms or may include

- Headache
- Chills
- Fever
- Fatigue
- Swollen glands, usually in the neck or groin
- Aches and pains in the muscles or joints

If your child develops the rash with or without any of these symptoms, call your pediatrician.

## Lyme Disease Risk



## How serious is Lyme disease?

For most people, Lyme disease can be easily recognized and treated. If left untreated, Lyme disease can get worse. Occasionally, patients can develop infection of the nervous system (meningitis) or facial muscle problems (facial nerve palsy). Late stage symptoms, occurring 1 or more months after the tick bite, are swelling of one or more joints.

## How is Lyme disease treated?

Lyme disease is treated with antibiotics (usually penicillin, a cephalosporin, or a tetracycline) prescribed by your pediatrician. The antibiotics are usually taken by mouth, but also can be given intravenously (directly into the bloodstream through a vein) in more severe cases. Both early and late stages of the disease can be treated with antibiotics.

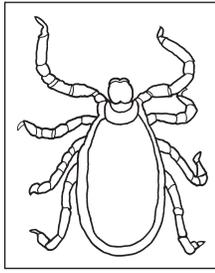
## How can I prevent Lyme disease?

If you live or work in a region where Lyme disease is a problem, or if you visit such an area, the following are ways to protect your family from the ticks that carry the disease:

- **Avoid places where ticks live.** Whenever possible, avoid shaded, moist areas likely to be infested with ticks.
- **Cover arms and legs.** Have your child wear a long-sleeved shirt and tuck his pants into his socks.
- **Wear a hat** to help keep ticks away from the scalp. Keep long hair pulled back.
- **Wear light-colored clothing** to make it easier to spot ticks.
- **Wear enclosed shoes or boots.** Avoid wearing sandals in an area where ticks may live.

## Ticks and how to remove them

Ticks do not fly, jump, or drop from trees. They hide in long grass and small trees, bushes, or shrubs waiting for an animal or person to brush by. Then they attach themselves to the animal or person's skin. When a tick is found on a person or pet, try to remove as much of it as possible using the following steps:



1. **Grasp the tick as close to the skin as possible** with fine-tipped tweezers. Be careful not to squeeze the tick's body.
2. **Slowly pull the tick away from the skin.**
3. **After the tick is out, clean the bitten area** with rubbing alcohol or other first aid ointment.

- **Use insect repellent.** Products with *DEET* are effective against ticks and can be used on the skin. However, large amounts of DEET can be harmful to your child if it is absorbed through the skin. Look for products that contain no more than 30% DEET. Wash the DEET off with soap and water when your child returns indoors. Products with *permethrin* can be used on clothing, but cannot be applied to the skin.
- **Stay on cleared trails whenever possible.** Avoid wandering from a trail or brushing against overhanging branches or shrubs.
- **After coming indoors, check for ticks.** This will only take a couple minutes. Ticks often hide behind the ears or along the hairline. It usually takes more than 48 hours for a person to become infected with the bacteria, so removing any ticks soon after they have attached themselves is very effective for reducing the chances of becoming infected.

Keep in mind, ticks can be found right in your own backyard, depending on where you live. Keeping your yard clear of leaves, brush, and tall grass may reduce the number of ticks. Ask a licensed professional pest control expert about other steps you can take to reduce ticks in your yard.

## Remember

If you live in or plan to visit an area where Lyme disease has become a problem, it's important to take steps to avoid being bitten by deer ticks. If you have any questions about the disease, talk with your pediatrician.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

## From your doctor

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