

## **What is Lyme disease?**

Lyme disease is a serious disease caused by bacteria (germs) that are spread by tiny infected deer ticks. Both people and animals can develop Lyme disease.

## **Is Lyme disease a problem in Dover?**

Lyme disease most commonly occurs in the Northeast and mid-Atlantic regions and in the upper Midwest. In Massachusetts Lyme disease occurs throughout the state. Dover has experienced a relatively high rate of Lyme disease in part because we have favorable habitat and a relatively high population of deer which are important to the life cycle of the deer ticks that carry the disease.

## **How is Lyme disease spread?**

Lyme disease is spread by the bite of an infected deer tick.

There is currently debate among infectious disease professionals regarding how long the tick must be attached to a person before it can spread the germ. Speculation in this regard ranges from 2 to 24 hours. Deer ticks in Massachusetts can also carry several other diseases and are capable of spreading more than one type of germ in a single bite.

## **When can I get Lyme disease?**

Lyme disease can occur during any time of the year. The bacteria that cause Lyme disease are spread by infected deer ticks. Young ticks (nymphs) are most active during the warm weather months between May and July. Adult ticks are most active during the fall and spring but may also be out searching for a host any time that winter temperatures are above freezing.

## **How do I avoid getting Lyme disease?**

Because Lyme disease is caused by the bite of an infected deer tick, the best way to avoid Lyme disease is to avoid deer ticks and their bites. Ticks are most active during warm weather, generally late spring through fall, but can be out any time that temperatures are above freezing. Ticks cling to vegetation and are most numerous in brushy, wooded, or grassy habitats. It has also been determined that tick densities are higher in shady places. When you are outside in an area that may have ticks, follow these simple steps to protect yourself and your loved ones:

- Use a dual repellent strategy on your clothing and skin: Use a repellent that contains permethrin on your clothes and one that contains DEET on your skin. Repellents containing DEET are not sufficient alone to protect against tick bites. DEET can repel ticks to unprotected areas and is not very long-lasting. Permethrin, a clothing-only repellent, kills ticks on contact and provides long-lasting protection.

- Wear long, light-colored pants tucked into your socks or boots, and a long-sleeved shirt. This may be difficult to do when the weather is hot, but it will help keep ticks away from your skin and help you spot a tick on your clothing faster.
- Stay on cleared trails when walking or hiking, avoiding the edge habitat where ticks are likely to be. Avoid lengthy rests in shady areas.
- After spending time in an area likely to have ticks, check yourself, your children, and pets for ticks. Young ticks, called nymphs, are the size of a poppy seed. Adult deer ticks are the size of a sesame seed. Both nymph and adult deer ticks can spread the bacteria that cause Lyme disease; however, nymphs are of more concern. They are aggressive feeders and so tiny that it can be difficult to see them on the body unless you are looking carefully. When doing a tick check remember that ticks like places that are warm and moist.

### **What do I do if I find a tick on myself or my child?**

If you find a tick on yourself or your child, don't panic because not all deer ticks carry Lyme disease. But you will want to remove the tick as soon as possible. You may find a deer tick that is loose on the skin or clothes, in which case it is easy to remove. But you may also find a tick that is already partially embedded in the skin. The best way to remove an embedded tick is to use a thin tipped tweezers or forceps to grasp the tick as close to the skin surface as possible, and pull the tick straight upward with steady even pressure to remove the tick with the mouthparts still intact. Be careful not to squeeze the body of the tick with the tweezers.

### **How do I know if I have Lyme disease?**

The most common early symptom is a red rash around the area where the tick was attached that begins to appear from 3 to 30 days after being bitten by an infected tick. The rash often, but not always, starts as a small red area that spreads outward, clearing up in the center so it looks like a donut. Flu-like symptoms, such as fever, headache, stiff neck, sore and aching muscles and joints, fatigue and swollen glands may also occur. If you experience these symptoms, please see your doctor, as early diagnosis and treatment prevents more serious problems later. Not all cases of Lyme disease start with a noticeable rash however.

### **What happens if Lyme disease is untreated?**

If untreated or inadequately treated, people with Lyme disease can develop late-stage symptoms even if they never had the initial rash. The joints, nervous system, and heart are most commonly affected.

- About 60% of people with untreated or inadequately treated Lyme disease can get arthritis in their knees, elbows, and/or wrists. The arthritis can move from joint to joint and become chronic for months and/or years.

- Many people who don't get adequate treatment can develop nervous system problems. These problems may include meningitis (an inflammation of the membranes covering the brain and spinal cord), facial weakness (Bell's palsy) or other problems with nerves of the head, and weakness or pain (or both) in the hands, arms, feet, and/or legs. These symptoms can last for months, often shifting between mild and severe.
- The heart also can be affected by Lyme disease, with slowing down of the heart rate and fainting. The effect on the heart can be early or late in the disease cycle.

## **Is there treatment for Lyme disease?**

People who are diagnosed with Lyme disease can be effectively treated with antibiotics. Prompt treatment during the early stage of the disease is likely to prevent later, more serious problems.

There is currently no existing means to determine if the infection caused by the Lyme disease bacteria is still present or absent in a given individual, or that a particular length of treatment is ideal. There is, however, ample observational evidence that effective, symptom-based treatments do exist.

## **Where can I get more information?**

Your doctor, nurse, or health care clinic will be familiar with Lyme disease. There is additional information available from the Dover Board of Health (<http://www.doverma.org/town-government/boards-committees/boh-lyme-disease> ), as well as the Massachusetts Department of Public Health ([www.mass.gov/dph/tick](http://www.mass.gov/dph/tick)), and the Centers for Disease Control and Prevention (<http://www.cdc.gov/lyme/faq/index.html>).