

PATIENT INFORMATION – Lyme disease & prevention

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What is Lyme disease, and why is it important to know about it in Maine?

Lyme disease is caused by the bacteria *Borrelia burgdorferi* and is transmitted by deer tick bites. It can have varied manifestations either in skin, joints, nerves, or the heart. It is treatable with antibiotics. There have never been any deaths in Maine from Lyme disease.

Lyme disease is closely linked to geography, and Maine is in the region where Lyme disease is common. In 2014, there were nearly 1400 cases of Lyme disease reported in Maine, with the rate here in Hancock County being higher than the state average.

How can I prevent Lyme disease?

The best way to prevent Lyme disease is to prevent tick bites!

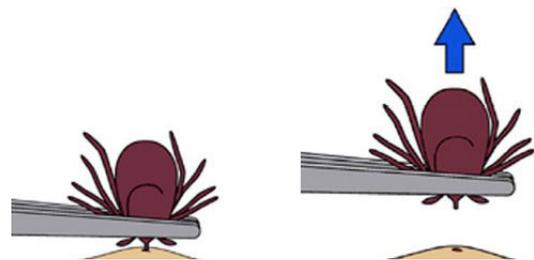
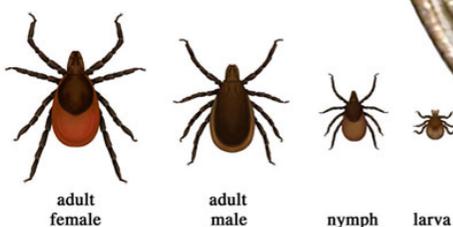
Ticks live in wooded areas, so when you're venturing out be sure shower or bathe within two hours and do a tick check. It can also be helpful to wear lightly colored clothing with long sleeves and long pants. There are tick repellents that you can use such as DEET, picaridin, IR3535, or oil of lemon eucalyptus – be sure to follow the product's instructions. There is also a product called permethrin that you can apply to clothing and lasts through several washings.

Since many homes in Maine are next to forests, you can use "tick-safe" landscaping. This involves keeping a clear and cut lawn (ticks dry out easily in the sun without shade), creating a border between woods and your lawn, and discouraging deer with physical barriers.

Help! I've been bit by a tick. What do I do next?

First, you should remove the tick. Take a pair of small tweezers and grasp the tick as close to the skin as possible. Then, with an upward and steady force, remove the tick. Don't twist while you're pulling, and don't dig for any left behind parts as that can aggravate your skin and cause more harm than benefit. Wash the bite area with soap and water, and clean with an antiseptic. See if you can identify the type of tick that bit you. The deer tick (blacklegged tick or *Ixodes scapularis*) is brown and very small (about the size of a poppy seed) and is the only tick known to transmit Lyme disease.

Blacklegged Tick (*Ixodes scapularis*)



All images from the CDC

In order for the bacteria that causes Lyme disease to be transmitted, the tick must be attached for at least 36 hours. This is because the bacteria live in the tick's gut, not its mouth. Once the blood enters the tick's gut, the bacteria mobilize to the tick's salivary glands, and are then excreted into the bite. This whole process takes at least 36 hours after attachment, so if a tick is attached for less than that, it is very unlikely that the bacteria had time to transfer.

See your doctor if you think the tick was attached for longer than 36 hours. You can also monitor the bite over the course a month and watch for the signs of Lyme disease such as an expanding ring-like rash and/or flu-like symptoms such as fatigue, headache, fever, chills, or body aches. If you notice these signs, be sure to follow up with your doctor.

I think I might have Lyme disease but I don't remember a tick bite. What should I do?

Here in Maine, most everyone is exposed to the deer tick habitat. If you think you might have Lyme disease, follow up with your doctor. Early Lyme disease sometimes presents with an expanding ring-like rash and sometimes with flu-like symptoms. Later signs of Lyme disease include large-joint swelling (especially in the knees), neurologic symptoms (numbness, pain, facial paralysis), headaches, and heart problems.



Early Lyme disease can usually be diagnosed by the appearance of the rash alone, and treatment can begin immediately. If you have other symptoms consistent with Lyme disease, your doctor might order a blood test to confirm your exposure to Lyme disease. If Lyme disease is found, you can be treated with antibiotics.

Where can I get more information about Lyme disease?

Your doctor is always a great resource for information about Lyme disease.

The internet can also be very useful, but it also contains a lot of false and misleading information. To vet the information you find, see if it is affiliated with a university that you've heard of, or if it is linked to the CDC or Department of Health. The information found on the following websites is reliable and informative:

<http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/lyme/>

<http://www.cdc.gov/lyme/>

<http://www.mayoclinic.org/diseases-conditions/lyme-disease/basics/definition/con-20019701>

You can also call the Maine Center for Disease Control and Prevention at 1-800-821-5821