



Lyme Disease

What is Lyme Disease?

Lyme disease in Michigan was first found in Southern Menominee County in the Upper Peninsula which borders Wisconsin. It has more recently been found in the tick and rodent population of Berrien, Van Buren, and Allegan Counties. The Deer tick, also known as the black legged tick, transmits Lyme disease through bites. When an infected tick attaches and feeds, the bacteria (*Borrelia burgdorferi*) is injected into the host along with the saliva. Lyme disease can not be passed from person to person. A human can only get Lyme disease when bitten by an infected deer tick. Lyme disease is most common during the late spring and summer months (May through August) when ticks are most active and people are enjoying the outdoors.

Deer ticks prefer habitats that are shaded or wooded. In Southwest Michigan, the ticks have been found in habitats characterized by sandy soil and oak or maple tree cover. Coastal areas along Lake Michigan are typical of good tick habitat.

What to do?

After visiting a possible tick habitat check for ticks. Ticks favor the waistline, thighs, armpit, hairline and head, but may be found anywhere on the body. Prompt removal of an attached tick may prevent transmission of the disease. Embedded ticks should be removed using fine tipped tweezers. Grasp the tick firmly and as close to the skin as possible. Do not use petro-

leum jelly, a hot match, nail polish or other methods to remove ticks. The bacteria which causes Lyme disease is located in the ticks midgut or salivary glands. These methods of removal may increase the chance of the bacteria being excreted into the host.

How will I know if I have Lyme Disease?

Signs of Lyme Disease include a characteristic "bull's eye" rash, fever, malaise, fatigue, headache, muscle aches, stiff neck, and joint pains. The usual incubation period is seven to fourteen days from infection to the appearance of the rash. Seek prompt medical attention if you develop any signs and symp-



toms of early Lyme disease. If left untreated some patients may develop arthritis, neurologic abnormalities such as nerve and brain inflammation, and rarely cardiac problems.

Clinical Signs in Humans

Lyme disease in humans may progress through three stages, depending upon the individual.

Stage 1 (Acute Localized)-

People may have any combination of headache, nausea, fever, spreading rash, ach-



ing joints and muscles, and fatigue.

These signs and symptoms may disappear, or they may reoccur intermittently for several months. A characteristic red rash may appear within 3 to 32 days after a person is bitten. The rash can attain a diameter of 2 to 20 inches, and is not itchy or painful. The rash is not restricted to the bite site and more than one lesion may occur on the body. Up to 30% of the people who have Lyme disease do not develop lesions, making diagnosis more difficult.

Stage 2 (Early Disseminated)-

(Weeks to months after initial exposure to the bacterium or after the first symptoms appear), some people may develop complications involving the heart and/or nervous system. Painful joints, tendons, or muscles may also be noted.

Stage 3 (Late Disseminated) -

The most common symptom is intermittent swelling and pain of one or a few joints, usually large joints such as the knee. Some patients develop neurologic disorders, or encephalopathy, the latter usually manifested by cognitive disorders, sleep disturbance, fatigue, and personality changes.

Is Lyme Disease Treatable?

Yes! Lyme disease is treated with antibiotics. In the case of early disease, a three to four week treatment with antibiotics is usually effective. With late disease it may be necessary to treat with four or more weeks of intravenous antibiotics depending on the disease severity.

Berrien County Health

Department:
Preventing Disease,
Prolonging Life and
Protecting the
Health of the
Community.



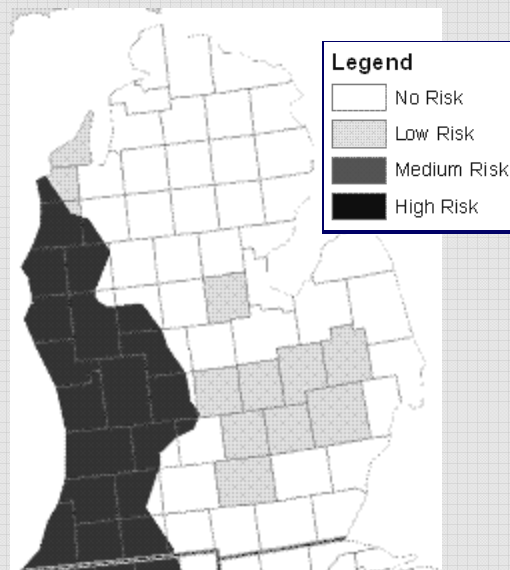
Bats, Bugs, and Bacteria

In July, the Health Department will focus on Bats, Bugs, and Bacteria (and some other things we will all encounter being outdoors in this hot summer month). Foodborne Illness Outbreaks, 4th of July Safety, Rabies, Lyme Disease, and Youth Fair will be highlighted this month. For questions about any of these topics, please call the health department at 926-7121.

How Can I Avoid Ticks?

You can lower your chances of exposure to Lyme disease by avoiding tick habitats. One important way you can protect yourself is to wear light colored clothing when in areas where exposure is more likely to occur so ticks can be spotted and removed. Also, long sleeved shirts and pants tucked into socks or boots help keep ticks away from your skin. Ticks are often close to the ground, so wear shoes or boots, not sandals. Applying insect repellants containing Deet to clothes and exposed skin can also help reduce the chance of tick attachment.

If the tick is it can be tested for Lyme disease. Contact the Environmental Health Division of the Berrien County Health Department at (269) 927-5623 for instructions on submitting ticks for testing.



The Berrien County Health Department has five locations to serve you:

Benton Harbor		Niles		Three Oaks
769 Pipestone	M-139 Office	School Based	1205 N. Front St.	21 N. Elm
P.O. Box 706	2106 S. M-139	870 Colfax Ave	684-2800	756-2008
926-7121	927-5623	925-4500		

Or visit us on the web at www.berriencohlthdept.org

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