

## What is Lyme Disease?

-Lyme disease is also known as the “deer-tick” disease, because it is commonly transmitted through a tick bite.

-Lyme disease was named after Lyme, Connecticut where this disease was prevalent.

-Lyme disease is a systemic infection that can manifest as a skin rash.

-Lyme disease can cause flu-like symptoms, fever, muscle pain, joint pain similar to arthritis, fatigue, paralysis, or nervous system problems<sup>2</sup>.

-Approximately, 16,000 people<sup>2</sup> a year in the U.S get Lyme Disease. Of the 16,000 people, 75% don't even remember they were ever bitten by a tick.

## What causes Lyme Disease?

-Lyme disease is a vector born disease that is “transmitted to humans by the bite of deer ticks (*Ixodes ticks*)”<sup>2</sup> that carry the particular bacteria called *B burgdorferi*<sup>2</sup>.

-A vector born disease is caused when an agent such as an arthropod (ie. ticks, mosquitoes) has the pathogenic bacterium that is then transmitted to a host.

-The following is a picture of the *Ixodes* tick:



## For more information about Lyme Disease:

You can visit the following websites:

<http://www.lymediseaseassociation.org/>

[http://www.medicinenet.com/lyme\\_disease/article.htm](http://www.medicinenet.com/lyme_disease/article.htm)

<http://familydoctor.org/online/famdocen/home/common/infections/common/bacterial/257.html>

[http://www.emedicinehealth.com/lyme\\_disease/article\\_em.htm](http://www.emedicinehealth.com/lyme_disease/article_em.htm)

## References:

1. Derrickson B, Tortura G. *Principles of Anatomy and Physiology*. 11<sup>th</sup> ed. Hoboken, NJ: John Wiley & Sons, Inc.; 2006: 840.

2. Meyerhoff, J. Lyme Disease. eMedicineHealth Web site. 08 Oct. 2005. Available at: <http://www.emedicinehealth.com/script/main/art.asp?articlekey=58762&pf=3&page=1>. Accessed February 3, 2008.



# Lyme Disease



## Frequently Asked Questions

By: Olivia Nguyen

## What are the symptoms of Lyme Disease?

-The most common way a person can tell if they have Lyme Disease is if they have the characteristic “bull’s-eye” rash. An illustration below can help you distinguish what the rash looks like:



-The rash starts as a small red dot where the tick bit. As time progresses, the rash expands into the characteristic “bull’s-eye”<sup>2</sup>. The rash is usually seen within 36-40 hours after the tick bite<sup>2</sup>.

-Other symptoms<sup>1</sup> that can occur are the following:

Fatigue  
Stiff neck  
Fever  
All over the body aching  
Headache

### If left untreated, what happens?

- Chronic arthritis<sup>1</sup>
- Arrhythmia of the heart (irregular heart beat)<sup>1</sup>
- Encephalitis (inflammation of the meninges of the brain)<sup>1</sup>
- Hepatitis (inflammation of the liver)<sup>1</sup>

## Treatment of Lyme Disease

-If you think you have Lyme Disease, then you need to go to your doctor.

-Your doctor may prescribe one of the following antibiotics for treatment<sup>2</sup>:

Amoxicillin  
Doxycycline  
Penicillin  
Erythromycin

-You need to make sure you can catch this disease at an early stage to avoid any long term illnesses that can arise from this disease.

-If you can catch this at an early stage, it can help expedite your recovery<sup>2</sup> and ensure a complete recuperation.

### Who is at risk? Where is Lyme Disease most commonly found?

-Lyme Disease is commonly found in the New England area<sup>2</sup> (New York, Massachusetts, New Hampshire, etc.) and in the woodland areas.

-More cases of Lyme Disease appear between the months of May to August<sup>2</sup>.

-Everyone can get Lyme Disease, but more cases are found in children between the ages of 2-15, the elderly, people who work outdoors, and campers.

## Prevention of Lyme Disease

-Below are some tips to help reduce your chance of getting Lyme Disease:

1. Wear long sleeve shirts and pants if you are going to go into wooded areas
2. Use tick repellent with DEET (OFF® brands usually have DEET in them)
3. Inspect yourself and your clothing every few hours to make sure you are free of ticks<sup>2</sup>
4. Try to avoid going to into tall, grassy areas



### How to remove a tick<sup>2</sup>:

1. Using tweezers, grasp the tick limply, getting as close to the skin as possible.
2. Draw the tick out cautiously, moving in one direction. Try to keep your hands steady.
3. Try to avoid putting too much pressure on the tick, because more bacteria can be injected into the bite area.
4. Apply an antiseptic to the area and cover with a band-aid to prevent further infection.



