

What is Lyme Disease?

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Sunday, 25 October 2009

Lyme disease is an infection with a corkscrew-shaped bacteria called *Borrelia burgdorferi*. It is passed to humans through tick bites.

What is going on in the body?

After an infected tick bites an individual, the *Borrelia burgdorferi* organism can cause early local Lyme disease. This may cause a mild flu-like illness and a rash at the site of the bite. If the organism spreads through the body by the bloodstream, it can affect many body systems. This widespread infection is known as disseminated Lyme disease.

What are the causes and risks of the infection?

Lyme disease is caused by *Borrelia burgdorferi*. This bacteria is carried by certain species of ticks, including the following:

- deer ticks in the northeastern and north-central parts of the United States
- sheep ticks in Europe
- Taiga tick in Asia
- western black-legged ticks in other parts of the U.S.

A person in these areas increases his or her risk of acquiring Lyme disease from a tick bite with the following activities:

- camping
- clearing brush
- fishing
- forestry
- landscaping
- hiking
- hunting
- living in a wooded or overgrown environment
- parks management

Lyme disease can also be passed to an unborn child if the baby's mother has the disease during pregnancy.

What are the treatments for the infection?

Lyme disease is treated with antibiotics, including the following:

- amoxicillin
- ceftriaxone
- doxycycline
- penicillin

Other medications may be used to treat symptoms of Lyme disease. For example, seizures may be treated with anticonvulsant medications. Ibuprofen may be given for fever or joint pain.

What are the side effects of the treatments?

Antibiotics and other medications used to treat Lyme disease may cause stomach upset or allergic reactions. Some of the antibiotics may cause light sensitivity.

What happens after treatment for the infection?

With effective treatment, individuals recover from Lyme disease without further problems. In some individuals, the disease lasts a long time or the infection comes back. These people may need repeated treatment. There is currently controversy about the effectiveness of long term antibiotics for chronic Lyme disease. Research continues in this area. How is the infection monitored?

Any new or worsening symptoms should be reported to the healthcare provider.

