

# Lyme Disease

## What is Lyme disease?

Lyme disease is an illness caused by the bacterium, *Borrelia burgdorferi*.

## How is Lyme disease spread?

The bacteria are spread by the bite of infected *Ixodes scapularis* (black-legged) ticks, commonly known as deer ticks. When in its nymphal stage, the tick is about the size of a poppy seed or the period at the end of this sentence. Not all deer ticks are infected.



## Who gets Lyme disease?

**Anyone** can get Lyme disease; however, it is more prevalent in children less than 10 years of age.

## What are the symptoms of Lyme disease?

Early Lyme disease symptoms include an expanding red rash that may appear around the area of the tick bite. The rash can resemble a bull's eye with a clearing center and distinct ring around it. Other early symptoms may include flu-like symptoms: fatigue, headache, fever, and achy muscles and joints. Later symptoms may include arthritis, neurologic problems, and heart problems.

## How soon do symptoms appear?

The early symptoms of Lyme disease usually occur within the first month after the tick bite. Later symptoms can occur several weeks to several months later.

## How is Lyme disease diagnosed?

Lyme disease may be difficult to diagnose because the symptoms can **mimic** many other disorders. Blood tests can be helpful in the diagnosis of Lyme disease but should not be used exclusively. Physicians will consider symptoms, history of tick bite, and the possibility of coming in contact with ticks to help in the diagnosis. If Lyme disease is suspected as the cause of illness, it is important that medical attention be sought.

## What is the treatment for Lyme disease?

Lyme disease is easily treated when detected in the early stages. Treatment with oral antibiotics, such as doxycycline or amoxicillin, taken for a few weeks are often effective. Intravenous antibiotic treatment may be necessary for patients with late symptoms of Lyme disease.

## How can Lyme disease be prevented?

To prevent Lyme disease and other tick-borne infections, the best protection is to avoid contact with ticks. When working or playing outside in areas that ticks inhabit (tall grass and weeds, woods, and leaf litter) you should:

- Wear light colored clothing (to spot the ticks easily), long sleeved shirts and long pants.
- Create a “tick barrier” by tucking pants into socks and shirt into pants.
- Consider using insect repellent, according to manufacturer’s instructions, when planning to be outdoors.
- Check clothing and skin very carefully after being outdoors in tick infested areas.
- Remove any ticks as soon as possible after they are discovered.
- Shower using a washcloth or puff to remove unattached ticks.
- Keep your lawn mowed, cut overgrown brush, and clear any leaf litter away from the home.
- Use a wood chip barrier between any wooded area and the yard.
- Inspect pets daily and remove any ticks found.

### **How should a tick be removed?**

- It is important that a tick is removed as soon as it is discovered using tweezers. Grasp the tick mouth parts as close to the skin as possible and pull the tick out with steady pressure. Do not yank the tick out. Do not crush the ticks body with the tweezers as it may contain infectious fluids.
- Do not use petroleum jelly, hot matches, nail polish remover, or any other substance to remove a tick. By using these substances, you may actually increase your chance of infection.
- Thoroughly wash the area of the bite with soap and water and put an antiseptic on it.
- The sooner the tick is removed, the lesser the risk of tick-borne infection.  
**Research has found that infected ticks need to feed for 24-36 hours before transmission occurs.**
- Write on the calendar the date you removed the tick and the part of the body it was removed from. Check this area daily for **30 days**.
- Contact your physician if you believe you are experiencing symptoms of Lyme disease for recommendations on testing and treatment.

*This sheet is for informational purposes only and should not be used for self-diagnosis or as a substitute for a health care provider consultation. If you think that you may have this infection, or have questions about the disease described above, you should consult your health care provider.*