

LYME DISEASE

Disease Fact Sheet

(Lyme borreliosis, Lyme arthritis)

What is Lyme Disease?

Lyme disease is caused by a spirochete (a kind of bacterium), *Borrelia burgdorferi*, that is transmitted by a tick called the black-legged tick (formerly called the deer tick), *Ixodes scapularis*. Lyme disease can cause symptoms affecting the skin, nervous system, heart, and/or joints. ODH is aware of cases occurring in the state since surveillance for Lyme disease began in 1980.

Why is it called Lyme disease?

The first cluster of cases associated with this spirochete was discovered near the town of Lyme, Connecticut, thus the origin of its name.

Who gets Lyme Disease?

Males and females of all ages can get Lyme disease. People who spend time outdoors in tick-infested environments are at an increased risk of exposure. Most cases have reported an exposure to ticks or woodland/brush habitats during the months of May through August, but cases have been reported in every month of the year.

How is Lyme Disease spread?

Lyme disease is acquired by the bite of an infected tick. Black-legged ticks become infected when they feed during an immature stage on infected white-footed mice (field mice). When subsequent stages of that tick feed again, the infection can be transmitted to the tick's new host. The tick must actually be attached to the person's skin before it can transmit the spirochete. The bite of the tick is usually painless.

How is Lyme Disease diagnosed?

Lyme disease is diagnosed by a physician based on clinical symptoms. Blood tests are used as supportive and confirmatory tests.

What are the symptoms of Lyme Disease?

The illness usually occurs during the summer months and often starts as a roughly circular reddish rash around or near the site of the tick bite. The rash expands over several days to several weeks, becoming several inches across. The rash might appear in only about 75% of the cases. Other, general flu-like symptoms also occur: fever, headache, fatigue, stiff neck, joint and/or muscle pain. These might last for several weeks. If left untreated, within weeks to months after the onset of symptoms, complications such as meningitis, facial palsy or heart abnormalities can occur. Swelling and pain in the major joints can recur over several months or years.

How soon do symptoms occur?

The early symptoms usually occur 3 to 32 days after the tick bite.

Does past infection with Lyme disease make a person immune?

Information available at present indicates that a person can be infected more than once.

What is the treatment for Lyme Disease?

The disease is treated with antibiotics in the tetracycline group, administered either orally or by injection. Length of treatment is controversial and decided by the physician.

What can be done to prevent the spread of Lyme Disease?

If you are in areas where ticks might be present, the following precautions can reduce the risk of acquiring Lyme disease or other tick-borne diseases:

- Wear light-colored, long pants; tuck pant cuffs into sock tops; and spray pant legs and socks with insect

repellent. Repellents containing 0.5% permethrin or 20%-30% DEET are effective in repelling ticks. Follow application directions carefully.

- When possible, avoid walking in tall grass and weeds.
- Conduct visual "tick checks" on yourself and children every hour or two.
- Check pets before allowing them into the home.

How should a tick be removed?

To removed an attached tick, grasp it with tweezers as close as possible to the skin and pull with firm, steady pressure straight out. Do not twist or jerk the tick, as the mouthparts might break off. If tweezers are not available, protect fingers with rubber gloves or tissue paper. Do not handle ticks with bare hands. Do not squeeze, crush or puncture the body of the tick as it may contain infected fluids. After removing the tick, thoroughly disinfect the bite site and wash your hands. Place the tick in a small jar or vial with a moist piece of paper towel and send it to the Vector-borne Disease Program for testing. See or call your doctor if there is a concern about incomplete tick removal. It is important to remove ticks as soon as possible after discovery.

For more information, contact your local health department, or the Vector-borne Disease Program, ODH at (614) 752-1029.