

# PUBLIC HEALTH FACT SHEET



COUNTY MICHIGAN  
HEALTH DIVISION  
Department of Health & Human Services

[oakgov.com/health](http://oakgov.com/health)

## Lyme Disease

### What is Lyme Disease?

Lyme Disease is an illness caused by a bacterial infection. The infection is passed on by the bite of a Deer Tick.

Three stages of the disease are recognized and may occur alone or together.

- Early infection often involves a rash and flu-like symptoms (fever, muscle aches and fatigue). The rash grows around the spot where the patient was bitten by a tick. As the rash grows larger, it is red at the edges but clear at the center, so that it appears as a "bull's-eye" pattern. The rash may appear from 3-32 days after being bitten by an infected tick. About 1/3 of infected people never develop any rash.
- If untreated, the infection may spread to other parts of the body weeks or months after the initial infection, most often within four to six weeks. Symptoms may appear as joint pain, nervous system disorders or disturbance of the heart rate.
- About 60% of people with untreated infection will develop nervous system disorders and arthritis (especially in the knee) which may become chronic and debilitating.

### How is Lyme Disease spread?

Lyme Disease spreads through the bite of the deer tick. Many kinds of wild and domestic animals, including field mice and squirrels may be bitten and infected. These animals can carry bacteria year round. The period of greatest risk of becoming infected is May through July, when ticks are looking for blood meals. Winter months are less risky, but even then, when snow is absent and temperatures rise above 45 F., infected ticks may become active and transmit disease.

### How can Lyme Disease be prevented?

- Keep legs and arms covered when walking in wooded areas. Woods, tall grass, dunes, even manicured lawns can contain ticks. In suspect areas, wear long sleeves and pants; tuck pant legs into socks.
- Use insect repellent containing 20-30% DEET, especially at wrists, ankles and neck. Be aware that excessive absorption of DEET through the skin can cause serious toxic effects, even death, especially in children. Use small amounts of repellent and avoid frequent reapplications.
- Clothing may be pretreated with the insecticide Permethrin following product directions.
- Check body and clothing for ticks frequently while walking in wooded areas. Ticks are most often found where clothing meets skin, under arms or in joint and groin areas.
- Shower and check clothing and body for ticks daily. Ticks take their time selecting a spot on the body to bite, and slowly feed for several days once they become attached. The Lyme bacterium or germ is not usually transmitted during the first 24 hours that the tick is on the host.



OVER

## How are ticks removed?

Ticks found crawling anywhere on the body or clothing can be easily picked off.

Attached tick should be removed promptly, before bacteria can move from the tick into the host (person or animal) by following these steps:

Grasp the tick with tweezers, if available, as close to the skin as possible.

- Pull gently but firmly, but do not squeeze the body of the tick.
- Try to pull the tick out without leaving mouth parts embedded in the skin.
- After removing the tick, wash hands and bite area thoroughly with soap and running water.
- Apply an antibacterial cream to the site of the bite.

Submit any ticks collected, alive if possible, to the Health Division for identification and testing for the Lyme Bacterium.

## Is Lyme Disease treatable?

Yes, antibiotics can cure infection and prevent complications. Treatment is most effective in the early stages. Diagnosis of Lyme Disease is very difficult except when the characteristic "bullseye" rash is evident. Sufferers with a rash should be seen by a physician for evaluation and treatment.

**For more information on Lyme Disease, call (248) 858-1406 or toll free 1 (800) 848-5533.**

**For more information or directions  
for submitting a tick,  
call your local Health Division Office**

Reference to commercial products or trade names does not imply endorsement by the Oakland County Health Division nor bias against those not mentioned.

**For additional copies, visit our website at [www.oakgov.com/health](http://www.oakgov.com/health).**

The Oakland County Health Division will not deny participation in its programs based on race, sex, religion, national origin, age or disability. State and federal eligibility requirements apply for certain programs.