



# PATIENT FACT SHEET

## Lyme Disease



### CONDITION DESCRIPTION

**Lyme disease is an infection caused by the *Borrelia burgdorferi* bacteria. Deer ticks and Western blacklegged ticks can bite humans and pass on the infection.** Lyme disease is most common in the Northeast and Middle Atlantic, Upper Midwest, Northern California and Pacific-Northwest. It was discovered in Lyme, Connecticut. People who spend a lot of time

outdoors are more susceptible to tick bites and Lyme disease, especially in warmer months. Lyme disease can cause symptoms like a red, ring-shaped rash in its first stage, then later joint pain and swelling called Lyme arthritis. The infection can spread if untreated, affecting the nerves and even the heart.



### SIGNS/ SYMPTOMS

**Three days up to a few weeks after a tick bite, people may notice a small red mark that widens into a ring-shaped rash that looks like a bull's-eye.** It may not hurt or itch. Untreated, the infection may spread. Symptoms include rashes, fever, joint and muscle pain, and headaches. Stiff neck, painful nerve inflammation and facial paralysis are possible symptoms. In some cases, the infection can reach the heart, slowing the heartbeat.

People may develop Lyme arthritis later. Signs are pain and swelling in one or both knees. Lyme disease may affect peripheral nerves, causing numbness, tingling or weakness in hands or feet. If the infection affects the brain, signs include trouble with memory or concentration. A rheumatologist diagnoses Lyme disease by running two blood tests: enzyme-linked immunosorbent assay (ELISA) and a Western blot. Only people with Lyme disease symptoms should be tested, as false results are possible.



### COMMON TREATMENTS

**Lyme disease infection usually clears up if it is caught and treated early with certain antibiotics.** Early disease may be treated with 2-3 weeks of oral antibiotics. Patients with later disease who develop Lyme arthritis may need 4 weeks of oral antibiotics. If arthritis persists, or patients have heart or brain involvement, intravenous antibiotics may be needed.

Antibiotics are a successful treatment for most people with Lyme disease. If not treated properly, chronic effects of the infection include fatigue, poor sleep, and muscle and joint pain. This is called post-Lyme disease syndrome. Only people with active, ongoing infections should get additional antibiotics to treat post-Lyme disease syndrome. Most people improve over time.



### CARE/ MANAGEMENT TIPS

**The best way to prevent Lyme disease is to lower the risk of tick bites.** Avoid ticks' favorite habitats, like tall grasses or brush. Stick to clear paths when hiking. When outdoors, wear light-colored clothes to easily spot ticks, long sleeves and pants tucked in at the hems. Use insect repellents on skin or clothing when walking outdoors. Regularly check for and remove ticks from skin.

Remove a tick by squeezing its head with a tweezers and pulling it off the skin. If infected, rest and pace activity until symptoms improve with treatment. If symptoms linger, get plenty of rest, good nutrition and regular exercise if possible. Follow up regularly with a rheumatologist to help recovery.