

“Lyme Disease”

OSHA has published a hazard information bulletin (HIB) to provide guidance to people who reside in high or moderate risk areas in the United States and who are exposed to ticks during the course of their work and thus at risk of contracting Lyme disease.* Examples of outdoor work which may be associated with increased risk of exposure to infected ticks include: construction work, landscaping, forestry, brush clearing, land surveying, farming, railroad work, oil field work, utility line work, and park/wildlife management.

The Centers for Disease Control and Prevention (CDC) has developed a national Lyme disease risk map in which CDC identified areas of the U.S. as minimal or no risk, low risk, moderate risk, or high risk for predicted Lyme disease. Areas at high or moderate risk include many counties in the Northeast U.S., some areas around the Great Lakes, and an area in Northern California. It is important that state and local health department authorities be consulted to determine risk in any given area, since risk can vary even within a county, and perhaps from year to year.

Lyme disease is caused by *Borrelia burgdorferi*, a bacterium carried in the gut of certain ticks. When these infected ticks attach to the human body (often in armpits, groin, scalp, or other hairy, hidden body areas), they slowly feed, and within 36-48 hours they may transmit *B. burgdorferi* to their human host. Young ticks are especially abundant and are seeking hosts in late spring and early summer, although adult ticks can transmit infection as well.



Although a majority of people with Lyme disease develop a “bulls-eye” rash, 20-40% of persons who have the disease do not have a rash. Other signs and symptoms may be non-specific and similar to flu symptoms (e.g., fever, lymph node swelling, neck stiffness, generalized fatigue, headaches, migrating joint aches, or muscle aches). Diagnosis is based on a history of known exposure and development of clinical signs and symptoms, with blood testing providing valuable supportive information. Most cases of Lyme disease can be successfully treated with antibiotics. It is very important that Lyme disease be diagnosed and treated with antibiotics, since untreated Lyme disease may result in symptoms (i.e.,

arthritis, muscle pain, heart disease, brain and nerve disorders) that are severe, chronic, and disabling.

Prevention of Lyme Disease

First line of defense is decreasing the probability of tick bites. Ticks can be vectors of other infections, in addition to Lyme disease.

- Avoidance of tick habitat (brushy, overgrown grassy, and woody areas) particularly in spring and early summer when young ticks feed.
- Removal of leaves, tall grass and brush from areas around work areas or residential areas to decrease tick as well as host (deer and rodent) habitat.
- Application of tick-toxic chemicals to surrounding work or residential areas in accordance with federal, state, and local regulations and community standards.

Personal Protection

- ☞ Wearing light-colored clothing (to more easily see ticks).
- ☞ Wearing long-sleeved shirts, tucking pant legs into socks or boots (delays ticks from reaching skin so they can be more easily found before attaching).

- ☞ Wearing high boots or closed shoes covering entire foot.
- ☞ Wearing a hat.
- ☞ Using appropriate insect repellants on non-facial skin and permethrin on clothes (kills ticks) in accordance with Environmental Protection Agency guidelines.
- ☞ Showering and washing/drying clothes at high temperature after outdoor exposure.
- ☞ Doing a careful body check for ticks, prompt removal with tweezers and skin cleansing with antiseptic.

Workers at risk should be advised of the signs and symptoms of Lyme disease, as well as the primary and secondary preventive measures for this disease. Those who are at increased risk for Lyme disease should obtain medical advice regarding the applicability of the Lyme disease; those who have symptoms of suspected tick-borne infection should seek medical attention early. More detailed information regarding various aspects of Lyme disease prevention can be found on the CDC web site (www.cdc.gov).

*See OSHA HIB 00-04 online at www.osha.gov or by calling your nearest OSHA office.

