

avoid contact with high grass and brush at trail edges. Inspect all parts of your body for ticks after returning from tick-infested areas. Promptly remove attached ticks.

- Use an approved repellent. Repellents containing permethrin can be applied to shoes and clothing and will last for several days. Repellents containing DEET can be applied to skin. Be sure to read the directions on the product label before applying repellent.
- Keep your pets free of ticks. Consult with a veterinarian about the various safe, effective tick control and repellent products available for pets.

How do you remove an attached tick?

- Use tweezers to grasp the tick at the surface of the skin. If tweezers are not available, use a tissue or paper towel to protect your fingers. Remember, exposure to the tick's body fluids may lead to infection.
- With a steady motion, pull the tick straight out. Do not twist or jerk the tick as this may cause the mouthparts to remain in the skin.
- After removing the tick, disinfect the bite site and wash hands with soap and water.



Texas Department of State Health Services
Zoonosis Control

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LYME DISEASE

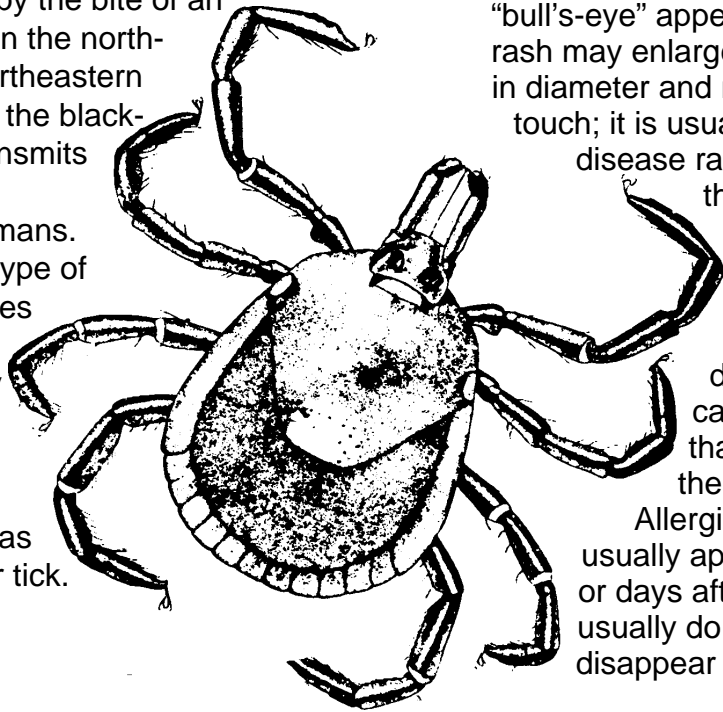


What is Lyme disease?

Lyme disease is an illness that may involve skin, joint, heart, and nervous system problems. Lyme disease can affect people of all ages. It is the most frequently diagnosed tick-borne disease in Texas and in the United States.

What causes Lyme disease?

Lyme disease is caused by a corkscrew-shaped bacterium called a spirochete. It is transmitted by the bite of an infected tick. In the north-central and northeastern United States, the black-legged tick transmits Lyme disease bacteria to humans. In Texas, this type of tick seldom bites people. The tick most likely to attach to people and transmit Lyme disease in Texas is the lone star tick.



Lone star tick - *Amblyomma americanum*

What are the symptoms and signs of Lyme disease?

Early Lyme disease: It takes about 7 to 14 days for symptoms to develop after infection. These symptoms may include chills, fever, headache, muscle and joint pains, and swollen lymph nodes. Along with these “flu-like” symptoms, about two-thirds of Lyme disease cases develop an unusual skin rash. This rash, called erythema migrans, begins as a small red circular area at the site of the infected tick bite usually within 3 days to 1 month. The center of the rash may become lighter as it expands, resulting in a “bull’s-eye” appearance. The circular rash may enlarge to about 4 to 6 inches in diameter and may be warm to the touch; it is usually painless. The Lyme disease rash may last for more than a month.

Not all rashes that occur after a tick bite are due to Lyme disease. Tick saliva can cause an allergic reaction that may be confused with the rash of Lyme disease.

Allergic reactions to tick bites usually appear within a few hours or days after tick attachment, usually do not expand, and often disappear within a few days.

Late Lyme disease: Some signs and symptoms of Lyme disease may not appear until weeks, months, or years after a tick bite. Late manifestations of Lyme disease usually involve the joints, nervous system, and heart. About 60% of patients will develop pain and swelling in one or more large joints, especially the knees, ankles, and wrist. Some Lyme disease victims may develop neurological signs and symptoms such as paralysis of the face, numbness of arms and legs, severe headache, stiff neck, difficulty concentrating, and fatigue. Rarely, a rapid or irregular heartbeat may occur.

How is Lyme disease diagnosed?

It is important to notify a physician if you become ill after being bitten by a tick. A diagnosis of Lyme disease will be based on clinical signs and symptoms and the results of laboratory blood tests.

How can you protect yourself?

- Take protective measures when engaging in outdoor activities. Wear light-colored clothing so that ticks can be easily seen. Tuck pant legs into boots or socks. Walk in the center of trails to