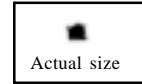




LYME DISEASE

How to Protect Yourself



Lyme disease—transmitted by ticks

Lyme disease is an illness transmitted by the bite of some varieties of ticks. Lyme disease is caused by *Borrelia burgdorferi*, a spiral-shaped bacterium (spirochete).

When these ticks bite a human, they transmit the spirochete, which may remain in the body for several years unless it is treated with antibiotics.

Ticks that cause Lyme disease are present in many parts of the U.S.A. and Europe. The Western Black-legged Tick (*Ixodes pacificus*) is the culprit most often found in California. These ticks usually live in the humid coastal areas and on the western slope of the Sierra Nevada range. They inhabit grasses and brush in both urban and rural settings. Adult ticks are most commonly found from December through June, during the period of the year when humidity is usually high.

The Western Black-Legged Tick (*Ixodes pacificus*) is found in San Diego County. Some ticks collected in the county have been found to be positive for Lyme Disease.

How to spot a tick

The adult female tick is red-brown with black legs, about 1/8 of an inch long; males are smaller and entirely brown/black. Both are teardrop shaped.

Note: Ticks do not fly, jump or drop from trees. Instead, they climb to the tips of vegetation, typically along animal trails or paths, and wait for a host to brush against them. (That could be YOU!)

Symptoms of Lyme disease

Symptoms will usually appear in three stages:

Stage 1

In a little more than half the cases, a rash may appear in 3 to 30 days after the tick bite. The rash is red, blotchy and circular. It may grow to several inches in diameter and clears from the center, producing a ring-like appearance. One or more lesions may occur, but not necessarily be located at the tick bite site. The rash may be preceded or be accompanied by flu-like symptoms which may stay the same, change, or disappear and reappear intermittently for weeks.



Stage 2

Some infected people may develop long-term complications weeks to months after the initial symptoms. These complications may include disorders of the heart or nervous system, including blockage of the heart muscle, meningitis, encephalitis, facial paralysis (Bell's palsy) and other conditions involving peripheral nerves. During this stage, joints, tendons, muscles, and bones may be painful, often without joint swelling or redness.

Stage 3

Arthritis may develop from several months to many years after the onset of this disease. Arthritis is the most common long-term symptom of Lyme disease. Large joints, especially the knees, are most often affected.

A **vaccine** is available for Lyme Disease. If you are routinely exposed to ticks because of work or recreation, consult your clinic or doctor to find out more about vaccination.

How to prevent tick bites

Avoid being bitten by a tick in these ways:

Personal

- Avoid trail margins, brush, and grassy areas when in tick country. Tuck pants into boots or socks, and shirt into pants. Wear light-colored clothing so ticks can easily be seen.
- Apply insect repellent on pants, socks, and shoes. Use a repellent registered for use against ticks.
- Check yourself and your children frequently.

Environmental

- Mow grass along trails, buildings, and camping areas.
- Remove brush along trails or other areas where there is high human activity. The application of insecticides to brush is not effective for tick control.

How to remove ticks

A tick may need a day or two to release the Lyme-disease-producing bacteria into the body. Remove a tick as soon as possible to give it less chance to transmit the disease.

- If possible, have someone else remove the tick from you.
- Use tweezers or forceps rather than your fingers.
- If you must touch the tick, use a tissue to protect your hand.
- If ticks are crushed or squeezed with fingers, exposure to body fluids may lead to transmission of Lyme disease or other disease agents.
- Grasp the tick's mouthparts as close to the skin as possible.
- Gently pull the tick straight out, steadily and firmly. DO NOT twist or jerk the tick. Tick mouthparts have harpoon-like barbs; they do not screw into the skin. If mouthparts of the tick break off and remain in your skin, talk to your clinic or doctor. Dispose of the tick in alcohol or by flushing it down the toilet.
- Wash your hands and the area of the bite with soap and water. Apply antiseptic to the bite site. Use the same procedures and precautions when removing ticks from pets.



What to do if you think you have Lyme disease

Early recognition of Lyme disease is important. Tell your clinic or doctor immediately:

- If you've had a tick attached to your skin, even though it has been removed.
- If you have been in an area where ticks are known to occur and you develop any of the listed symptoms listed.

This information, together with a blood test, will help your doctor decide if you have Lyme disease.

Treatment with antibiotics during the early stages can cure the infection and prevent complications associated with stages 2 and 3. Antibiotic treatment of the later stages of Lyme disease is often successful, but not always.

You can arrange to have a tick specimen identified to determine if it is the type that transmits Lyme Disease by contacting the Vector Surveillance and Control Program at (858) 694-2488.

**For more information call
(858) 694-2888.**

