

Prevention

You can reduce the risk of Lyme disease and tularemia by following these tips:

1. Stay on trails

Ticks are found in grassy, brushy areas and on the brush that line trails.

2. Dress correctly when outdoors

- Wear long-sleeved shirts and long pants
- Tuck pant legs into socks
- Wear light-colored clothing to easily see ticks if they are crawling on you

3. Use insect repellent

- Use repellents containing DEET or Picaridin
- Apply repellent to clothing and exposed skin; follow the repellent directions carefully



4. Check yourself for ticks

- After you are in a tick infested area, examine yourself and your companions for ticks and remove them right away
- Tick nymphs may be very small, about the size of a poppy seed

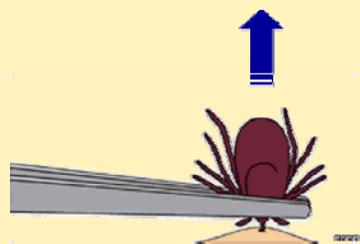
5. Avoid contact with wild animals

- Tularemia can be spread through contact with wild rabbits and rodents

Removing Ticks

If you find a tick crawling on your skin, it has probably not bitten you yet. It can be easily brushed off of the skin. If you find a tick that is attached to your skin, it is important that you remove it right away. Do NOT Use petroleum jelly, nail polish, a hot match or other products to remove a tick! Instead, follow these directions for proper tick removal:

1. Grasp the tick with tweezers as close to your skin as possible.
2. Pull the tick straight out, using a firm, steady motion. Do not twist, squish or burn an attached tick.
3. Apply an antiseptic to the bite area after removing the tick. Wash your hands with soap and water.
4. Save the tick for identification. If you have concerns or feel symptoms, consult your doctor. He or she may want you to submit the tick for testing.
5. If redness or pain develops at the tick bite site or the tick cannot be removed, consult your doctor.



Remove tick with tweezers

Ticks and Pets

Ticks can bite pets and spread disease to them. Pets can also bring ticks into the home. It is important to prevent tick bites on pets. Talk with your veterinarian about tick prevention for your pets.

Watch a Video on Your Smartphone Now!

Download a QR Reader application from your smartphone then scan the QR code below to learn more about flies. Go to www.SDVector.com to learn more about QR codes.



For more information about ticks or other vectors and vector-borne diseases, contact the County of San Diego Vector Control Program.

County of San Diego



Vector Control Program

5570 Overland Ave, Suite 102
San Diego, CA 92123
(858) 694-2888



www.SDVector.com

TICKS

DON'T LET TICKS BITE



County of San Diego
Vector Control Program

Lyme Disease

Lyme disease is caused by a spirochete (a corkscrew shaped bacteria) called *Borrelia burgdorferi*. In California, it is transmitted through the bite of an infected Western Black-legged Tick.

Lyme disease is found in many areas of the country, including most counties in California. It is rare in San Diego County.



Western Black-legged Tick
(*Ixodes pacificus*)

Symptoms

Stage 1:

- Bull's Eye Rash (seen in most but not all cases)
- Flu-like symptoms and achy joints



Stage 2:

- Possible pain in joints, tendons, muscles and bones
- Multiple rashes
- Heart and nervous system problems

Stage 3:

- Swelling and pain in joints
- Neurological symptoms including fatigue, personality changes, and difficulty sleeping and/or concentrating

Lyme disease is rarely fatal, and does not spread from person to person.

Tick Information

Some ticks can spread diseases such as Lyme disease and tularemia. Both of these diseases are treatable when caught early.

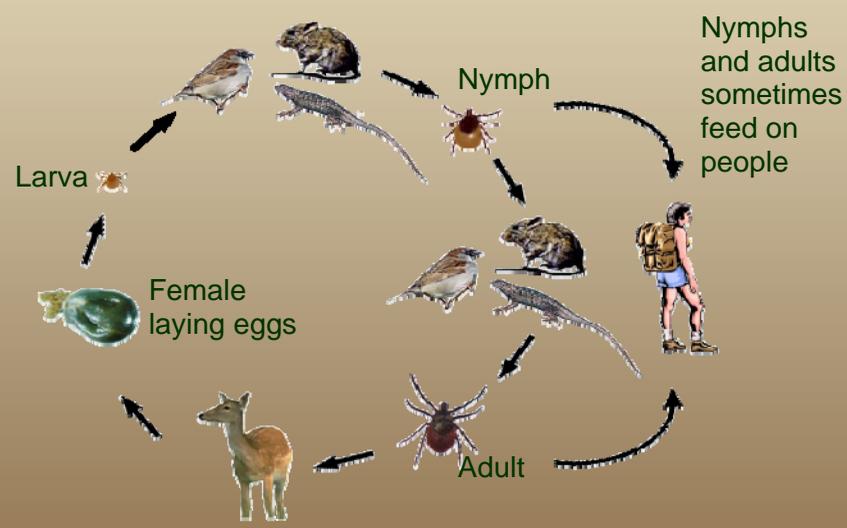


3 Stages in the life of the Western Black-legged tick
(Larva, Nymph, Adult)

Ticks are parasites that need blood to grow and reproduce. Ticks feed by latching onto a human or animal "host". They bite and attach themselves to the hosts skin. As they feed, their bodies swell. Once they finish feeding, they drop off the host.

Ticks are related to spiders, and go through different stages in their lives. With each stage, they grow larger and their body shapes may change.

Western Black-legged Tick Life Cycle
California Department of Public Health - used with permission



Some types of ticks prefer to feed on different animals at different stages in their lives. At certain stages, some species can transmit disease. The Western black-legged tick, for example, is most likely to transmit Lyme disease when it is a tiny nymph.



Tick "Questing"

Ticks can be found in natural areas that have grasses, shrubs, or leaf litter under trees. They crawl up branches or blades of grass and extend their front legs to find a host to feed on. They can latch on to an animal or person that walks by. This is called "questing".

In San Diego County, ticks may be found in the coastal, foothill and mountain regions.

Tularemia

Tularemia, also known as Rabbit Fever, is caused by the bacteria *Francisella tularensis*. This bacteria is found in wild rodents and rabbits. It is spread through tick bites, direct contact with infected living or dead animals, or by drinking water that has been contaminated with the bacteria. In California, the American Dog Tick and the Pacific Coast Tick can transmit tularemia.



Pacific Coast Tick
(*Dermacentor occidentalis*)



American Dog Tick
(*Dermacentor variabilis*)

Tularemia has been reported in many areas of the country. In California, it is most frequently seen in the northern areas of the state. It is very rare in San Diego.

Symptoms

- Headache
- Sudden fever and chills
- Diarrhea
- Muscle and joint pains
- Dry cough

Other symptoms depend on how the patient was exposed to the bacteria

- Skin or mouth lesions
- Swollen lymph glands
- Swollen, painful eyes



Skin Lesion