

of tick species, prevalence of ticks within a region and the prevalence of infectious pathogens they carry is not stable and fluctuates on a seasonal basis depending on weather, rainfall and climate. For this reason monitoring of tick-borne disease is a dynamic, ongoing process.

The following site (<https://www.pethealthnetwork.com/dog-health/dog-diseases-conditions-a-z/dogs-ticks-and-tick-borne-parasites>) shows the number of reported positive cases of *Ehrlichiosis*, *Lyme disease*, *Anaplasmosis* and *heartworm disease* in dogs. Maps are available for all regions of the United States and Canada. Because so many dogs go untested for tick-borne diseases, the actual number of dogs infected by ticks is likely many times higher than reported figures.

Species of Ticks That Carry Infectious Pathogens

- American Dog Tick (*Dermacentor variabilis*)
- Deer Tick (or Black-legged Tick) (*Ixodes scapularis*)
- Brown Dog Tick (*Rhipicephalus sanguineus*)
- Gulf Coast Tick (*Amblyomma maculatum*)
- Lone Star Tick (*Amblyomma americanum*)
- Rocky Mountain Wood Tick (*Dermacentor andersoni*)
- Spinose Ear Tick (*Otobius megnini*)
- Western Black-legged Tick (*Ixodes pacificus*)

Brown dog ticks live and can infest inside and around homes and kennels where dogs are present, including in colder regions of North America such as Canada and Alaska.

Lone Star ticks, black-legged ticks and Western black-legged ticks are most commonly found in the understory or leaf litter associated with natural wooded areas frequented by wildlife. The edge habitat often found surrounding a home or yard provides ample habitat to support these ticks.

Keep Your Dog Safe from Tick-borne Disease

- Learn about the ticks and diseases in (<https://www.pethealthnetwork.com/dog-health/dog-diseases-conditions-a-z/dogs-ticks-and-tick-borne-parasites>).
- Use preventives, including topical medication and tick collars. Be aware that tick preventatives do not prevent disease transmission; they reduce risk by reducing the tick burden in the dog's environment.
- If your dog spends time outdoors, check them daily for ticks. Pay close attention to the head, ears, shoulders, and upper leg areas.
- Remove ticks immediately upon finding them, using tweezers to safely pull the tick from the dog's skin. Avoid squeezing the tick to prevent transfer of the tick's bodily fluids.
- Never spray human tick repellent on your dog as these chemicals are toxic if ingested.
- Talk to your veterinarian about annual testing for tick-borne disease. Testing is fast, effective, and can save costly veterinary bills of disease is not caught in its early stages.
- If your dog displays symptoms of tick-borne disease they may test negative at first. This is because most tests measure for the presence of antibodies against the pathogen, and antibodies take time to reach measurable levels in the blood. For that reason your veterinarian may test twice using an initial "acute" sample followed by a "convalescent" sample two weeks later. Alternately, discuss the use of Polymerase Chain Reaction (PCR) diagnostic testing for the pathogens themselves.

American dog ticks, Rocky Mountain wood ticks, and Gulf Coast ticks are more commonly found in tall, grassy meadows; open woods, particularly along trails; and open fields in agricultural areas.

Spinose ear ticks are found in arid areas west of the Mississippi, particularly in the south central and southwestern United States.

Ehrlichiosis

Ehrlichiosis [pronounced er-lick-ee-o-sis] is caused by *Ehrlichia* species of bacteria (*Ehrlichia canis*, *Ehrlichia ewingii*, *Ehrlichia chaffeensis*). *Ehrlichia canis* is transmitted by the brown dog tick; *Ehrlichia ewingii* and *Ehrlichia chaffeensis* are transmitted by the lone star tick. The highest concentration of *Ehrlichia canis* cases is reported in southwestern and Gulf Coast regions of the United States. The distribution and number of *Ehrlichia ewingii* and *Ehrlichia chaffeensis* cases are on the rise and can be found in states as far north as Massachusetts and as far west as central Oklahoma and Kansas.

Symptoms of Ehrlichiosis

Ehrlichia species infect white blood cells and platelets, causing symptoms associated with inflammation and problems with blood clotting. Common symptoms can include any of the following:

- Depression and/or lack of energy
- Loss of appetite
- Runny eyes and nose/discharge
- Spontaneous nose bleeds
- Bruising on gums and belly
- Lameness/joint pain
- Spontaneous and shifting leg lameness, reluctance to move