

Invisible Danger That Puts Your Pet at Risk

Ticks are more than just a nuisance. They can transmit serious diseases like Rocky Mountain spotted fever. Understand the signs of infection, the importance of timely treatment and how to protect your furry friend from these stealthy invaders.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Tick season is here, and the little pests are busy expanding their geographic territory and growing more resistant to chemical pesticides
- A single tick can harbor multiple infectious organisms, one of which is Rocky Mountain spotted fever, which can be deadly and requires early detection and treatment
- Other tickborne infections commonly seen in dogs include anaplasmosis, babesiosis, ehrlichiosis, and Lyme disease, with co-infections becoming more common
- There are common sense steps you can take to help prevent tickborne illness in your dog; one of the best is to check your dog at least once daily for ticks, and do regular blood tests to check for silent (non-symptomatic) infections

Summer is tick season, because the little bloodsuckers thrive in warm weather. Tickborne diseases are a problem across the U.S., as the parasites constantly expand their territory and become increasingly **resistant to pesticides**.

To make matters worse, a single tick bite can transmit multiple tickborne diseases that can infect dogs, including Rocky Mountain spotted fever. The illness is caused by the rickettsial bacteria, which can be carried by a variety of different ticks, including the American dog tick and the lone star tick. Despite its name, this tickborne disease extends well beyond the Rocky Mountains, and in fact is seen most often in the eastern U.S., the Midwest, and the plains region.

Symptoms of Rocky Mountain Spotted Fever

The initial symptoms are seen in many other illnesses, including other tickborne diseases, and typically involve joint pain, lameness, loss of appetite, fever, depression, and in some cases, gastrointestinal (GI) signs such as vomiting and diarrhea. However, more specific to Rocky Mountain spotted fever is blood vessel wall damage.

"Petechiae, or small hemorrhages, may be noticed on the conjunctiva of dog's eyes or on the gums," veterinarian Dr. Debra Eldredge writes in the Whole Dog Journal. "Hemorrhages may be noticed in other areas as well.

These vasculitis problems due to Rocky Mountain spotted fever also can lead to damage in the kidneys, brain, and heart. Neurologic signs in your dog include tremors, a wobbly gait, and being hypersensitive when petted or touched."¹

Since Rocky Mountain spotted fever can be deadly, early detection and treatment are crucial. Fortunately, when caught early the disease is entirely treatable, and once a dog has it, he or she is immune going forward.

Diagnosing the Disease Can Be Challenging

Unfortunately, there is no specific screening test for Rocky Mountain spotted fever. A **complete blood count (CBC) and chemistry panel** may be suggestive of the disease, depending on your dog's symptoms. More advanced lab tests, such as a polymerase chain reaction (PCR) test, can detect acute cases. An immunofluorescent antibody test can confirm the diagnosis, but it takes weeks.

"If your veterinarian suspects Rocky Mountain spotted fever in your dog, she will often prescribe doxycycline for a three-week period without an exact diagnosis," writes Eldredge. "Whatever you do, give your dog the full prescribed three weeks of medicine. Some dogs have relapsed after a two-week treatment."

4 More Common Tickborne Infections in Dogs

1. **Anaplasmosis** — This tickborne infection is caused by the bacteria *Anaplasma phagocytophilum* or *Anaplasma platys*. The illness is transmitted by the deer tick or the brown dog tick, both of which are found throughout the U.S. Infected dogs can run a high fever, lose their appetite, have vomiting and diarrhea, neck pain, neurologic signs, **anemia**, and even seizures.

If your dog tests positive for anaplasmosis but doesn't have anemia or other symptoms, chances are he has effectively cleared the bacteria on his own. Antibiotics are used to treat more serious, confirmed infections.

2. **Babesiosis** — Most cases of **babesiosis** in dogs occur in the southern part of the U.S., with pockets of disease also reported in the northeast. Babesiosis is caused by the intracellular parasite *Babesia*, and the incubation period between exposure and symptoms is about 2 weeks.

Symptoms, when present, can range from mild to very severe and can include lack of energy, lack of appetite, weakness, fever, pale gums and tongue, orange or red-colored urine, discolored stool, weight loss, enlarged lymph nodes, enlarged spleen, and jaundice. A severe infection can affect multiple organ systems including the lungs, GI tract, kidneys, and nervous system.

3. **Ehrlichiosis** — Canine ehrlichiosis is caused by two bacteria: *Ehrlichia canis* is transmitted by the brown dog tick and is commonly found in the southwest and Gulf Coast states; *Ehrlichia ewingii* is transmitted by the lone star tick and is found from the midwest to New England.

Like other tickborne diseases, ehrlichia can wreak havoc on your dog's body if it's not identified and treated. Symptoms include loss of appetite, low-grade fever, lethargy, swollen lymph nodes, and occasionally, unexplained bruising, nosebleeds, and lameness.

Just because a dog tests positive on the initial screening test for ehrlichiosis doesn't mean she must immediately be treated. In fact, most dogs successfully clear the infection without medical intervention. For this reason, I don't recommend automatically giving antibiotics to positive dogs.

If your pet tests positive, ask your veterinarian to do additional testing to find out whether she has just been exposed or is actually dealing with an infection.

4. **Lyme disease — Lyme disease**, also known as borreliosis, is caused by *Borrelia burgdorferi* bacteria. *B. burgdorferi* is carried by two types of ticks: the common deer tick in the northeast and upper midwest, and the western black-legged tick in the western U.S.

Many dogs infected with *B. burgdorferi* show no symptoms at all, and presence of the bacteria is only detected through routine tests at a veterinary clinic.

If your dog develops symptoms, they will usually appear from 2 to 5 months after the tick bite and can include fever, swollen lymph nodes, joint swelling, lameness, lethargy, and loss of appetite. This is why I recommend screening for this disease twice a year in endemic areas before dogs become symptomatic.

As with other tickborne infections, many dogs successfully clear Lyme infections on their own. If your dog tests positive on a screening test, I don't recommend automatically giving antibiotics. Instead, ask your vet to make sure your dog is truly infected by running a follow-up test called a Quantitative C6 (QC6) test.

5 Tips to Help Your Dog Avoid a Tickborne Infection

1. **Check for ticks daily** — And don't overlook areas of your pet's body where ticks can hide, like between the toes, the underside of the toes, in the earflaps and around the tail base.

That's why daily tick checks, or even better, tick checks each time your dog has been outside and potentially exposed, and removing ticks immediately are crucially important steps in reducing your dog's risk of acquiring an infection.

2. **Use natural tick deterrents** — There are dozens on the market, and although none of them can prevent 100% of tick bites, 100% of the time, they may make your dog a less appealing host.
3. **Focus on making your dog optimally healthy** — Ticks and other parasites prefer weaker hosts. Creating a strong and resilient immune system in your dog through a nutritionally optimal fresh food diet, **titering**, and minimizing chemical exposure will make her less attractive to ticks.
4. **Remove ticks the right way** — If you find a tick on your dog, be sure to remove it immediately, but carefully. Don't use your bare hands because you risk becoming infected by handling or crushing an infected tick. Wear gloves, or even better, use a tick removal tool.

Grasp the tick very close to your pet's skin with the tick removal tool or a pair of tweezers. Carefully pull the tick's body away from the skin. Once it's off, flush it down the toilet. Then disinfect your dog's skin with soapy water or diluted povidone iodine (Betadine). I also recommend applying a drop of lavender oil to the bite.

Monitor the attachment site for the next few days. If you notice any irritation or inflammation of the skin, contact your veterinarian.

5. **Have your dog tested for tickborne diseases** — Do this from 3 to 4 weeks after removing a tick (no sooner than 3 weeks). Ask your veterinarian for the SNAP 4Dx or Accuplex4 test, which are screening blood tests.

If you don't have one of these tests done, you'll need to watch your dog closely for several months for any signs of loss of appetite, lethargy, change in gait, fever, intermittent limping — all the symptoms of potential tickborne disease.

And keep in mind that waiting until your dog exhibits symptoms isn't the most proactive approach. I have found tickborne diseases substantially harder to treat once a dog is clearly ill. The period of subclinical infection (when the dog has no symptoms) is when integrative practitioners see excellent treatment success.

Checking your dog externally for ticks plus having his blood checked regularly (I recommend every 6 months) for silent infections is the very best approach to keeping him safe from potentially devastating tickborne diseases.

Sources and References

¹ [Whole Dog Journal, April 5, 2024](#)
