

TICKS

The nature of the beast: It's hard to think of kind words for these parasites. Arachnids, not insects (they have eight legs, not six), ticks feed on the blood of many different animals. They can take a long time to suck up their blood meals. They may feed on more than one type of animal during the various stages of their life. And they live a long time. All that makes them ideal spreaders of disease. The tick-borne ailment of most concern today is Lyme disease, which afflicted about 8000 people and an unknown number of pets last year (it's known that dogs get Lyme disease and fairly certain that some cats do). Other diseases ticks spread include Rocky Mountain spotted fever, babesiosis, Q fever, and tularemia. Substances in the saliva of some species can also cause a sometimes-fatal ailment called tick paralysis.

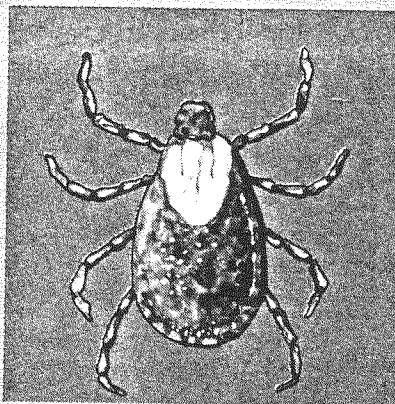
Fortunately, ticks aren't very mobile. To find their meals, most species engage in "questing," particularly at the larval stage. The creature crawls up the nearest blade of grass or weed stalk, anchors its hind legs, and blindly waves its other legs, hoping to snag a passing animal. How high the tick crawls usually determines the size of the catch—mouse, dog, deer, human. Some species may also follow chemical signals—carbon dioxide exhaled or butyric acid excreted—to track down a host.

Before settling down to feed, ticks often wander around on the host and may even take a taste to make sure they've made a good choice. Most species feed for days or even weeks, anchoring themselves with a cementlike chemical that makes them difficult to remove. Others feed for a few hours, then drop off.

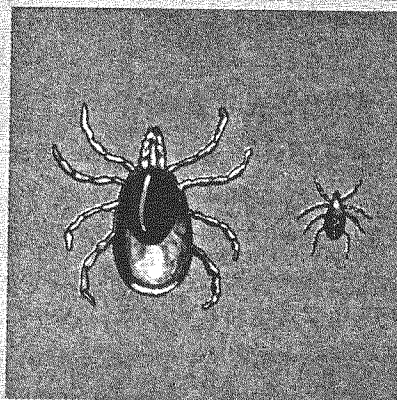
Types: The brown dog tick, with an elongated, reddish-brown body about an eighth of an inch long, is the main tick to plague dogs. Found throughout the U.S., it may infest houses as well as kennels and lawns. While awaiting a meal, this species crawls upward looking for cracks and crevices to hide in, so it may be found indoors in such places as door and window moldings, curtains, and pictures hanging on the wall. It rarely bothers people, but can cause anemia, paralysis, canine piroplasmiasis, and malignant jaundice in pets. On dogs, adults usually feed in the ears or between the toes, while larvae and nymphs are most often found on the back. Peak seasons, especially inside: fall and winter.

The American dog tick, a dark brown and white oval creature one-quarter inch long, prefers mice or voles in the larval or nymphal stages and as an adult favors large mammals—raccoons, dogs, people. Common east of the Rockies and along the Pacific coast in woods and fields, it can spread Rocky Mountain spotted fever and tularemia to people and pets and cause tick paralysis. Peak seasons: spring and late summer.

The northern deer tick in the East and



Female American dog tick



Female northern deer tick and nymph

the western black-legged tick in the West both spread Lyme disease. The northern deer tick, dark brown and about the size of a sesame seed, is fairly fussy about its meals. Larvae and nymphs primarily feed on white-footed mice, adults on deer. Unfortunately, the creature sometimes feeds on dogs, cats, or humans. The nymph transmits the spirochete of Lyme disease more readily than the adult, so the greatest danger of infection comes in late spring or early summer, when nymphs are most active.

The western black-legged tick, reddish-brown as a female and brown-black as a male and a bit larger than its East Coast relative, is found primarily in humid coastal areas of the West, especially in grass or brush. It feeds on more than 80 species of mammals, birds, and reptiles. In addition to spreading Lyme disease, this tick has a painful bite that may take days to heal. Peak season for larvae and nymphs is spring. Adults are most active November to May.

The Rocky Mountain spotted fever tick, much like the American dog tick but paler in color, also inhabits brush and grass in the West. In addition to spreading the disease for which it is named, it transmits Q fever, tularemia, and Colorado tick fever and can cause tick paralysis. Adult ticks, the stage most likely to bite dogs or humans, are most abundant in summer.

Warning signs: During tick season, look for the adults or nymphs on the animal twice a week. Places to check: in the ears, between the toes, and on the back and neck.

Action: A flea comb can remove unattached large ticks; the sticky kind of lint roller can remove small ticks such as the northern deer tick. Remove attached ticks by carefully pulling them out with tweezers or small forceps. If the tick pops or tears, you expose yourself to any disease-carrying organisms in its blood. To prevent tearing the tick, grasp it as close to its mouthparts as possible, then pull it upward steadily, without jerking. After removing the tick, disinfect the bite with rubbing alcohol or povidone iodine. Don't handle the tick—dispose of it in alcohol or flush it down the drain.

Since it takes a while after the bite—research suggests a few hours—for a tick to inject the spirochetes that cause Lyme disease or the microorganisms that cause other tick-borne diseases, swift removal can prevent infection. That's why removal methods that rely on suffocating the tick—smearing it with Vaseline, butter, or the like—are less desirable. Gasoline, alcohol, or heat can kill the tick but leave it attached and infectious.

Permethrin repels ticks and kills them on contact. Some formulations (see listings) are safe to use on dogs, but cats may be sensitive to it. Use permethrin to treat the pet's environment, in kennels and in the house, in cases of indoor infestation. Applied to clothing, it's also a good way to protect yourself from ticks.

Ingredients that are effective against fleas—diatomaceous earth, silica gel, insecticidal soap, citrus oils, pyrethrins and related chemicals—can also be used to repel and kill ticks.

The best tick medicine is prevention. Try to avoid tick habitats, especially in peak tick season. If your pet suffers repeatedly from ticks, try to keep it indoors. Clean up brush, wood piles, and other places that harbor rodents, the major source of meals for larval and nymphal ticks.

A Lyme disease vaccine for dogs is now being used with conditional Government approval, based on limited testing (a human vaccine is still years away). But veterinarians disagree about whether the treatment is effective, safe—or even necessary. Many more dogs appear to be exposed to Lyme disease than actually get it, according to anecdotal reports collected by veterinarians at Cornell University. And if dogs do get the disease, with its resulting fever, loss of appetite, and painful joints, most can be easily treated with antibiotics. The vaccine is being advertised all around the country. While Lyme disease has been reported in all but four states, the disease is concentrated in just eight states—Connecticut, New York, New Jersey, Rhode Island, Delaware, Wisconsin, Maryland, and Pennsylvania.