

Prevention of Tick-Associated Disease in Pets

The prevention of Lyme disease and other tick-associated diseases in dogs relies on avoiding tick habitat, reducing ticks on the animal, daily tick checks, and use of one of the canine Lyme disease vaccines available (whole-cell killed bacterins or recombinants based on outer surface protein A - OspA – of *B. burgdorferi*). Vaccination early, prior to tick exposure, will provide better protection, but vaccination after treatment can help reduce future infection. Electronic fencing systems can help confine a pet in an area where the animal is less likely to pick up ticks or where other tick control measures have been implemented. If the pet is not allowed to freely roam into the wooded areas, it is less likely to pick up ticks. Animals can carry ticks into the home. However, studies to determine whether pet owners may be at increased risk of Lyme disease have been inconclusive. Ticks, once attached or fed, will not seek another host. Dogs and cats should be checked daily for ticks, but the immature stages may be virtually impossible to detect on longhair or dark-hair animals. Outdoor activities with animals also may increase the exposure of pet owners to ticks and their habitat.

A veterinarian should be consulted about the prevention and treatment of Lyme disease in your animals. A variety of products can repel and/or kill ticks on the animal. Some are available over the counter (OTC), while others require the assistance of veterinarians. Chemical products to protect dogs from ticks are available as spot-ons, sprays, collars, powders, and dips. Ingredients include several insecticides such as pyrethrin, permethrin, permethrin and imidacloprid, amitraz, or fipronil (see section on chemical control). Fipronil is the only option for cats. Some products are combined with an insect growth regulator to help control flea eggs. Follow label directions to minimize the chances for an adverse reaction to the product in your pet and do not combine products without the advice of your veterinarian. Different products can contain the same or similar ingredients, which could result in an overdose of the animal.

Although the risk of clinical disease is low, the canine Lyme disease vaccines can provide high levels of protection for dogs living in or traveling to endemic areas with a likely exposure to ticks. Depending upon the vaccine, an initial dose can be given as early as 9 or 12 weeks of age with a second required dose several weeks later. An annual booster is recommended by the manufacturer.