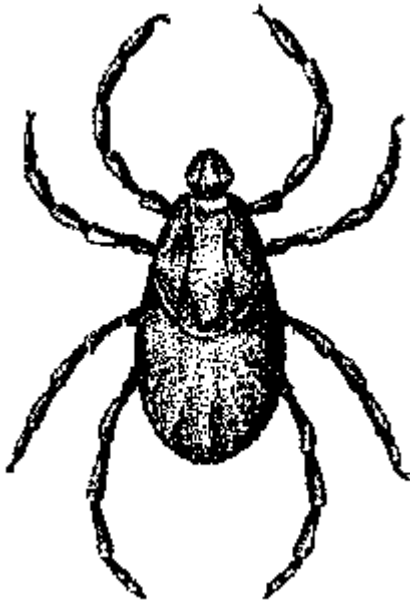


Tick Control

The tick is an arthropod--a relative of insects. The most common ticks found in Delaware are the American dog tick, the brown dog tick and the black-legged tick. The American dog tick, often called the eastern wood tick, rarely invades the home in large numbers. However, the brown dog tick can become a serious household pest in those homes with pets. The deer tick will bite humans as well as domestic animals, but it is generally an outdoor tick.



Brown Dog Tick

Life history and habits

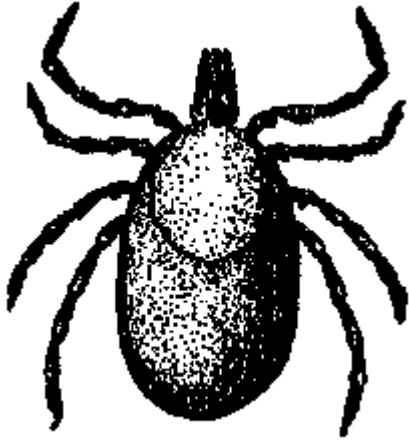
Ticks have a four-stage life cycle. The egg hatches into a six-legged larva, or seed tick. After a blood meal, the larva molts (sheds its skin) and becomes an eight-legged nymph. After another blood meal, the nymph molts and becomes an adult. The adult female then attaches to a warm-blooded animal, engorges on blood, mates, leaves the host animal, deposits several thousand eggs and dies. Adults can live a year or more without feeding, but they must feed before mating.

The American dog tick is widely distributed east of the Rocky Mountains and on the Pacific coast. Dogs are the preferred host of the adult tick, but humans and many other animals are frequently attacked. Because larvae and nymphs prefer to feed on mice, rats and rabbits, this tick does not become established as a household pest. The American dog tick is responsible for spreading Rocky Mountain spotted fever.

The brown dog tick differs from the American dog tick primarily in its feeding habits. It feeds almost exclusively on dogs and rarely attacks humans. In all stages it is commonly found on the ears, the back of the neck, and between the toes of dogs. After feeding, the ticks drop off the host and conceal themselves in any available crack or crevice. Because of their strong tendency to climb, they are often found on furniture and behind window frames and moldings.

A smaller tick known as the deer tick has been found on humans and pets. It is associated with areas supporting large rodent rodents as well as deer. Although smaller than the dog tick, its bite is painful because its mouth parts have tiny barbs to anchor it securely. The barbs make removal difficult; they often remain in the skin, causing local infection. This tick is a carrier of a

Lyme disease pathogen that causes arthritis-type symptoms and, if not treated, can affect the liver, heart, and lungs.



Deer tick

Identification of a tick found on a person or pet is often difficult. If the tick has been feeding and is engorged, identification is even more difficult. The American dog tick can be distinguished from the brown dog tick by the white mottled shield (scutum) on its back, behind the head.

Brown dog ticks have a shield but it lacks the lighter markings. The deer tick also lacks a color pattern and it is distinctly smaller being no larger than the period at the end of this sentence. To avoid ticks, tuck trousers into boots or socks when outside. Search all areas of your body at least daily if you frequent tick-infested areas. The deer tick control should eliminate the

nymphs since this stage is most likely to transmit Lyme disease. The larval stage is incredibly small--no larger than the period at the end of this sentence (omit – already said this). Sprays with approved insecticides provide some control but don't take such measures unless infestations are confirmed. Always use a repellent and check for ticks on your body.

Tick removal

The best method to remove ticks from a person or pets is with a slow, steady pull. Get the capitulum (mouth parts) out with the rest of the tick. Tweezers work well, especially in removing deer ticks. Place the tweezers as close to the point of attachment as possible and pull steadily away from the skin. An antiseptic will prevent infection and reduce irritation. We can't recommend using fingernail polish, chloroform, ether, gasoline, kerosene, a hot match or needle or a glowing cigarette. These methods can cause more serious injury than the bite itself.

Protecting pets

Dogs and cats that roam outside should be inspected periodically for ticks. Remove attached and/or engorged ticks. Several types of control programs are available for pets. Contact your veterinarian to determine which is best for your pet. Where ticks occur, pet collars impregnated with tick pesticides could be used routinely. The amitraz (Preventic, Tick Arrest), carbaryl, fipronil (Frontline, TopSpot), and selamectin (Revolution) can be used on dogs. Routinely check your pet for signs of skin reactions under the collar. Heavily infested animals can be treated by a veterinarian or an insecticide dust or shampoo effective for tick control can be used. Read the product labels before applying any product to your pets.

Controlling the American dog tick

American dog ticks are active in Delaware from late May to early August and can be controlled outdoors by keeping grass and weeds mowed and low-lying shrubs cut back. The same cultural practice is helpful around campgrounds, hiking trails and other outdoor use areas. Heavy infestations may need more attention. Spraying infested areas with an approved insecticide may be useful.

Controlling the brown dog tick

Brown dog tick infestations in the home often require the services of an experienced pest control operator. Sometimes homeowners can control light infestations with the proper use of an approved insecticides (carbaryl, allethrin, cyfluthrin, cypermethrin, diatomaceous earth, eugenol, imoprothrin, permethrin, pyrethrin and tralomethrin). Give special attention to the dog's sleeping quarters, as well as chairs and other places the dog frequents.

Treat with an improved insecticide all cracks and crevices, mouldings, window and door frames, and similar places where ticks might hide. Discard or wash your pets bedding in hot soapy water.

The following pesticides are labeled for outdoor use: carbaryl, cyfluthrin, diatomaceous earth, esfenvalerate, eugenol, permethrin, and tetrachlorvinphos. Read and follow label instructions.

Controlling the deer tick

The same insecticides used to control dog ticks are also effective for deer ticks. Since this tick is associated with wildlife, hunters, hikers, and those involved in outdoor activities should consider using a repellent. Repellents containing DEET (dimethyl-meta-toulamide) and/or dimethyl phthalate help prevent tick attachment. Apply to exposed skin, socks, and lower portions of trousers. Tuck trousers into boots or socks. Search all areas of your body at least daily if you frequent tick-infested areas.

Control in dwellings

Engorged ticks may be brought indoors by humans, dogs, or cats, leading to infestation of homes, kennels, and animal hospitals. The brown dog tick can complete its entire life cycle in a domestic setting, using dogs as a primary host. For this reason, this species can become a significant nuisance in houses, apartments, kennels, and veterinary facilities. Eggs may be laid in cracks and crevices, upholstered furniture, and under carpeting. Larval and nymphal ticks may conceal themselves in those locations as well as behind light switches and picture frames.

For proper chemical control of brown dog ticks in kennels and veterinary facilities, certain areas (e.g., the cracks in kennel floors and walls, roofs, and ceilings of porches) should receive special attention. A residual spray of carbaryl or cyfluthrin can be used for many situations. A non-residual fog can also be employed for pets' sleeping quarters and domestic dwellings. Cat kennels and sleeping quarters should be dusted with a general-purpose insecticide following a thorough scrubbing. Open premises of dog kennels, runs, and yards can be treated effectively using a residual type insecticide.

If homes or apartments are infested, rugs and carpets can be treated with a dust formulation. A fogger containing methoprene and permethrin is also useful for space spraying domestic dwellings.

Control outdoors, in campgrounds, and on hiking trails

Outdoor activities often bring campers, picnickers, hikers, bird watchers and others in close proximity to tick-infested areas. To establish "tick-free zones" in recreational areas (tick contact may be greatly reduced, but not eliminated), it is possible to intermix simple cultural practices with pesticide use to drastically reduce sites of tick contact. To do so, low-lying vegetation, shrubs and grasses surrounding campgrounds or backyards should be closely cropped or mowed to discourage tick movement and nesting. An approved residual insecticide should then be broadcast into the surrounding vegetation to establish an effective chemical barrier. A similar process, but on a smaller scale, can be followed for well-defined hiking trails.

Researchers have found evidence that in areas where the deer tick (vector of Lyme disease) is endemic, it may be present in home lawns. Using registered pesticides at the proper time may reduce tick contact greatly. Spraying does not guarantee that ticks will not be present. Self-protection should always be practiced by dressing appropriately, using repellents when in potentially tick-infested areas, and checking daily for the presence of ticks, removing them if found.

Control should be aimed at the nymphal stage, which is the most likely stage to transmit the disease to humans. One application of a pesticide should be made at nymphal population peak. Research indicates that in Westchester County, New York, peak populations occur during the last week in May (data are lacking for other areas). A second application toward the end of the nymphal stage, in late July to early August, is also suggested.

Damminix is another control device that presents cotton balls treated with permethrin in cardboard tubes. Proper placement of the tubes is essential. Mice take the cotton balls and use them in building nests. The mice are therefore exposed to enough pesticide to control the ticks that try to feed on them. Damminix is reported to be effective in reducing larval tick numbers and may have a place in an integrated tick management program. Commercial treatment of residential premises for tick control must be done by certified applicators.

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