

# Wood Ticks—Things You Should Know

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Ticks are a common external (on the skin) parasite of many animals, including dogs. Did you know that the peak season for Deer Ticks in WI is September, October and November?!! Read on for details.

Ticks are not insects like fleas, flies, and lice, but are arachnids like mites and spiders. There are approximately 850 species of ticks worldwide. Scientists have classified ticks into two families based upon their structure: Ixodidae and Argasidae

All ticks have three pairs of legs during the immature stage and four pairs as an adult. They crawl but cannot fly. Wings are absent. In addition, ticks possess a sensory apparatus called Haller's organ. This structure senses odor, heat, humidity, and you. This is how the ticks locate their food source. They climb upon tall grass and when they sense an animal is close by, they crawl on.

A tick's diet consists of blood and only blood. Your blood, dogs' blood, cats' blood, and most blood. The tick imbeds its mouthparts into the animal's (or human's) skin and sucks the blood. Except for the eggs, ticks require a blood meal to progress to each successive stage in their life cycle.

Most ticks are what we call three host ticks, that is, during their development which takes two years, they feed on three different hosts. All ticks have four stages to their life cycle: egg, larvae (seed tick), nymph, and adult. Let us look at the life cycle of the deer tick, as an example.

Adult female deer ticks lay eggs on the ground in spring. Later in the summer (depending on moisture and temperature), the eggs hatch into larvae. The larvae, which are smaller than the period at the end of this sentence, find an animal (the first host, which is usually a bird or rodent), live off its blood for several days, then detach and fall back onto the ground. For deer ticks, this most commonly occurs in the month of August. In the ground, the well-fed larvae now molt into the next stage and are called nymphs.

The nymphs remain inactive during the winter months and in spring become active. The nymph now finds an animal (the second host - a rodent, pet, or human) and feeds again. Once well fed, the nymph detaches and falls back to the ground. Here it molts and changes into an adult. Throughout the fall, both adult male and female ticks now find another animal (the third host - a rodent, deer, pet, or human) and feed on blood and mate. Once well fed, both males and females fall back to the ground. The male now dies and the female lives through the winter and lays eggs in the spring, completing the cycle. If the adults cannot find a host animal to feed on in the fall, they will survive in the leaf litter until the next spring when they will feed, mate, and produce eggs. Each female tick lays approximately 3,000 eggs.

Other species of ticks may be at peak activity for each life stage at different times of the year than the deer tick we described. Your local university or health department may have information on peak tick activity in your area.

Ticks can transmit or cause:

Babesiosis (Piroplasmosis)

Cytauxzoonosis

Ehrlichiosis

Haemobartonellosis in Dogs and Cats

Hepatozoonosis

Lyme Disease

Rocky Mountain Spotted Fever

Tick Paralysis

Tularemia in Dogs and Cats

Tick control is not unlike that used for fleas in that there are no shortcuts, no sure cures, and the battle must be on-going. Tick control is a two-step process, in that measures must be implemented to treat both the environment and the pet. Ticks, despite all their legs and ugliness are not hard to kill.

Tick control in the environment generally involves treating the yard and kennel areas. We prefer an environmentally-safe spray containing fenvalerate for this purpose. Spray every thirty days during the peak tick months. In our area, that is April through November. Regardless of the product used, remember not to spray when or where runoff could go into lakes or rivers. Read the label on all insecticides thoroughly and apply them as directed.

Remember the cold, frosty fall weather does not kill ticks, and in fact, that is when the deer tick numbers are at their peak. In Northern Wisconsin, the best time to contract Lyme Disease is during September, October, and November since the deer tick is the primary carrier. The point here, is to treat the yard late into the fall and early winter.

Removing leaves and clearing brush and tall grass from around the house and kennel areas can help reduce the number of ticks.

The Brown Dog Tick, *Rhipicephalus sanguineus* is the most troublesome tick in kennels and yards and is found almost everywhere. It can complete its life cycle in about 2 months, and although uncommon, it can become established indoors. If you do encounter an indoor tick problem, then use a flea and tick fogger. Fog as you would for fleas. In the house, ticks tend to crawl to a higher area (like they do in grass). They may be found in cracks around windows and doors. Because of this tendency and the fact that ticks crawl, and do not jump or fly, another option is to apply a 1-foot barrier

may be found in cracks around windows and doors. Because of this tendency and the fact that ticks crawl, and do not jump or fly, another option is to apply a 1-foot barrier of insecticide such as a flea and tick powder where the carpet meets the wall around the entire room. As a result, ticks moving to the walls to climb higher will come in contact with the insecticide and be killed. And, finally, remember to wash the pet's bedding regularly.

Keeping pets out of grasses and woods helps to reduce their exposure to ticks. But any animal outside can quite easily have a tick crawl on board. Products that kill and repel ticks are needed.

Products for pets are many and varied and include once-a-month topical products, sprays, powders, dips, shampoos, and collars.

**Once-a-month Topicals:** Once-a-month topical insecticides are applied to a small area on the back of the pet, are probably the easiest product to use, and generally, last the longest. Some kill fleas and ticks, and others just fleas, so check the label carefully. Ingredients generally include permethrin, pyrethrin, imidacloprid, or fipronil. Examples of these products include Bio Spot for Dogs, Defend, K9 Advantix for Dogs, and Frontline Top Spot. Revolution, which contains selamectin, is a monthly topical product that controls American Dog Ticks (*Dermacentor variabilis*) only.

**Sprays:** Flea and tick control sprays can come as aerosols or pump bottles. When using a spray, you do not have to soak the pet with the spray, but be sure to spray all parts of the animal. Spray a small amount on a cotton ball to apply the product around the eyes and ears. Do not get any of these products in the eyes. Follow your veterinarian's and the manufacturer's directions on how often to spray, and spray in a well-ventilated area. Sprays often contain permethrin or pyrethrin. Note: Most cats prefer the pump bottles, since the hiss from the aerosols may sound too much like the hiss of another cat. If you are going to use an aerosol spray on a cat, it may be helpful to spray a cloth with the product (away from the cat), and then rub the cat with the cloth.

**Powders:** Powders are generally easy to apply but can create a mess. If you or your pet has asthma, powders may not be the best choice of product since the powder could be inhaled. Be sure to use powders in well-ventilated areas. Powders often contain pyrethrin.

**Dips:** Dips and rinses are applied to the entire animal. They generally have some residual activity. They should be applied in a well-ventilated area according to your veterinarian's and the manufacturer's directions. It is helpful to put cotton balls in the pet's ears and ophthalmic ointment in the pet's eyes. Even with these precautions, be very careful not to get any of the product in the pet's ears or eyes. Dips and rinses may contain permethrin, pyrethrin, or organophosphates.

**Shampoos:** Shampoos help to primarily rid the pet of the ticks it already has on it, although some have residual activity. To properly use a flea & tick shampoo you must be sure to work the shampoo in over the entire body and then leave it on at least 10 minutes before you rinse it off. This is true of almost any medicated shampoo.

Again, remember to protect the eyes and ears of the pet. (HINT: Cats often do not like running water. It is often better to pour water over a cat with a large pitcher.) Shampoos often contain pyrethrin.

**Collars:** Collars can be effective, but must be applied properly. To get the right degree of snugness, you should just be able to get two fingers between the collar and the neck of your pet. Be sure to cut off any excess portion of the collar after you have properly applied it. Otherwise, that animal or other pets may try to chew on the end. Check the package for information on duration of effectiveness since many collars lose effectiveness when they get wet, e.g.; if a dog swims a lot. Watch carefully for any irritation under the collar. If this occurs, you may need to use a different product.

Other collars contain ingredients such as carbamates and pyrethroids (Adams Flea and Tick Collar).

Do NOT use collars containing Amitraz, permethrin, or organophosphates on cats.

In severely tick-infested areas or for dogs who spend a lot of time outdoors and in the woods, we have found a Preventic Tick Collar in addition to a permethrin-containing product such as Bio Spot is going to give your dog the best protection. This collar contains Amitraz, which is approved to use in conjunction with most other flea and tick products. With the Preventic Collar, 95% of the ticks will detach and die within 24 hours.

Remember, with any tick preventive you use on your pet, the ticks must actually be in contact with the active ingredient to be killed by it. For instance, if you only use a tick collar, you may see ticks attached and feeding on the dog, even directly under the tick collar. This has to happen for the tick to take in the insecticide and die. A good tick collar will kill the tick in 24 hours or less. This greatly reduces the risk of tick-transmitted diseases since it generally requires more than 24 hours of attachment for disease to be transmitted.

Even a pet who is treated with an insecticide could potentially get a tick that attaches for a sufficient time to transmit disease. Vaccines for Lyme disease for dogs are available to provide that extra protection.

The following recommendations on tick control for people have been made by the federal government's Center for Disease Control:

It is best to avoid tick-infested areas especially during the times of peak tick numbers such as spring and late fall. If you are going to walk through areas where ticks could be a problem, wear a hat, long-sleeved shirt, and long pants. Tuck your pant legs into socks or boots, and tuck your shirt or blouse into your pants. If you wear light-colored clothing you will be able to spot ticks more easily. Try to walk in the center of trails to avoid long or overhanging grass and bushes. Spraying insect repellent containing DEET on your clothes and exposed skin, except for your face, will help. Or, you may want to treat your clothes, especially pants, socks and shoes, with permethrin which kills ticks on contact.

When you come in from the outdoors, remove your clothing and wash and dry it at a high temperature. It is a good idea to inspect yourself carefully for any ticks. If you find an attached tick, remove it carefully.

To remove an attached tick, use a pair of fine-tipped tweezers or special tick removal instruments. These special devices allow one to remove the tick without squeezing the tick body. This is important, as you do not want to crush the tick and force harmful bacteria to leave the tick and enter the dog's bloodstream.

Grab the tick by the head or mouth parts right where they enter the skin. Do not grasp the tick by the body.

Without jerking, pull firmly and steadily directly outward. Do not twist the tick as you are pulling.

Using methods such as applying petroleum jelly, a hot match, or alcohol will NOT cause the tick to 'back out.' In fact, these irritants may cause the tick to deposit more disease-carrying saliva in the wound.

After removing the tick, place it in a jar of alcohol to kill it. Ticks are NOT killed by flushing them down the toilet.

Clean the bite wound with a disinfectant. If you want to, apply a small amount of a triple antibiotic ointment.

Wash your hands thoroughly.

Please do not use your fingers to remove or dispose of the tick. We do not want you in contact with a potentially disease-carrying tick. Do NOT squash the tick with your fingers. The contents of the tick can transmit disease.

Once an embedded tick is manually removed, it is not uncommon for a welt and skin reaction to occur. A little hydrocortisone spray will help alleviate the irritation, but it may take a week or more for healing to take place. In some cases, the tick bite may permanently scar leaving a hairless area. This skin irritation is due to the irritating and destructive tick saliva. It is not due to the tick losing its head, literally. Do not be worried about the tick head staying in; it rarely happens. This skin irritation is due to a reaction to the tick saliva.

I recently received an email about tick removal using liquid soap. Here are the details. Apply a glob of liquid soap to a cotton ball. Cover the tick with the soap-soaked cotton ball and swab it for a few seconds (15-20), the tick will come out on its own and be stuck to the cotton ball when you lift it away. This technique has worked every time I've used it (and that was frequently), and it's much less traumatic for the patient and easier for me. Unless someone is allergic to soap, I can't see that this would be damaging in any way. I even had my doctor's wife call me for advice because she had one stuck to her back and she couldn't reach it with tweezers. She used this method and immediately called me back to say, "It worked!"