Protecting Companion Animals Against Ticks in Pennsylvania

Pennsylvania plays host to a variety of tick species that may bite your pets. Tick bites may be irritating to you and your pet, but more important, they can result in health problems for your pet. Even pets that only go out in the yard may still be bitten by ticks. Therefore, it is important to prevent tick bites and promptly remove any attached ticks on all dogs and cats that go outside.

What ticks are likely to be found on pets?

Blacklegged Tick *(Ixodes scapularis)*

Also known as the “deer tick,” this species is very common throughout Pennsylvania. Adults are active in the late fall and early spring. Because of their small size, these ticks can be difficult to see on animals, especially long-haired breeds.

**Pathogens:** This species of tick is best known for transmitting the pathogen that causes Lyme disease, but veterinarians are seeing a growing number of cases of canine anaplasmosis in Pennsylvania. The blacklegged tick carries the pathogen that causes anaplasmosis in dogs, and some ticks carry both Lyme disease and anaplasmosis pathogens.

Lone Star Tick *(Amblyomma americanum)*

Lone star ticks are found in the southern and southeastern parts of Pennsylvania. Adults and nymphs are around in the
spring and early summer. This tick is found mostly in the coastal plain, but it can also be found in the piedmont. Large numbers of larvae can be picked up at a time since they clump in the environment.

**Pathogens:** Along with the American dog tick, the lone star tick can also carry the pathogen that causes tularemia, a disease of many species that can also be transmitted by contact with infected animals.

**American Dog Tick** *(Dermacentor variabilis)*

American dog ticks are found throughout Pennsylvania. They appear as adults in late spring and summer. While the adults of this species prefer dogs as hosts, their presence has been recorded on numerous wild and domestic animals as well as humans.

**Pathogens:** In addition to carrying the pathogen that causes tularemia, this tick can also carry a variety of other pathogens that can cause disease in pets. The pathogens that cause canine ehrlichiosis in dogs and Rocky Mountain spotted fever in dogs and people can be transmitted by this tick. Although this tick can carry the pathogen that causes cytauxzoonosis, a severe disease in cats, it has not been reported in Pennsylvania despite the presence of a healthy population of bobcats, the natural reservoir of the pathogen. In addition to carrying pathogens, some dogs may react to the saliva of female American dog ticks, which can result in progressive paralysis that is typically reversible once the tick is removed.

**Asian Longhorned Tick** *(Haemaphysalis longicornis)*

This species is invasive to Pennsylvania and has been recovered from the central and eastern counties. In its native range in Asia, this species prefers cattle as hosts. Unlike our native ticks, this tick is parthenogenetic (females can reproduce without a male) and all life stages may be found on large animals. In the United States, this species has been recovered primarily from deer, sheep, cattle, and other ungulates, as well as from domestic pets and people. This tick is not a significant vector for disease pathogens of dogs and cats.

**Brown Dog Tick** *(Rhipicephalus sanguineus)*

This species is small and plain brown. It is not as common in the northern states as it is in the south, but it is found throughout Pennsylvania. Brown dog ticks prefer to bite dogs.

**Pathogens:** The brown dog tick can transmit the organism that causes canine babesia, a disease of dogs that is typically mild but can be more severe in young animals.
Why should I control and remove ticks?

Tick species in Pennsylvania can carry a wide variety of pathogens that can cause disease in pets, particularly dogs. In addition to these diseases, the bites can be irritating and can sometimes become infected, especially if the pet licks or chews at the site of the bite. The best way to reduce your pet’s risk of these diseases is to prevent tick bites as much as possible and remove ticks promptly when they are found.

Where should I look for ticks on my animals?

Once a tick gets on your pet, it may bite anywhere on the body. However, ticks generally prefer areas that are warm, protected, and have thinner skin. On dogs and cats, common sites of tick bites are in the groin, under the front legs, around the eyes, and in and around the ears. Also, it is important to check any skin folds your dog may have, as well as the little pocket on your dog’s ear flap.

How do I remove a tick from my animal?

If you find a tick on your pet, it should be removed immediately. Tick removal from animals is the same as with people. It is important to not crush or squish the tick, as the tick may regurgitate potential pathogens into your animal through the bite, which may increase the risk of pathogen transfer. In addition, do not apply any agents to the tick, such as oils, petroleum jelly, heat or fire, paint, nail polish remover, or similar materials. Using a sharp pair of forceps or tweezers, grasp the tick as close to the skin as possible and pull it straight away from the skin slowly. Ticks can be placed in a small plastic bag in the freezer and saved for future pathogen testing if desired.

How do I prevent tickborne diseases in my pet?

To protect your pets at home, tick prevention starts with changes in your yard. These measures, paired with quality tick control products and vaccinations for Lyme disease, can provide the best protection for your pet. Ticks “quest,” or seek hosts, on vegetation. Creating 9-foot border zones of gravel or mulch between lawn and wooded areas can reduce tick habitat. Eliminating brush and woody debris like fallen branches from lawn edges can reduce small mammal habitat, which in turn reduces immature tick hosts. Because ticks are susceptible to drying out, they are not found in sunny areas with low-cut grass. Mowing the lawn and reducing weeds eliminates suitable sites for ticks to search for hosts, and cutting overhanging branches to allow sunlight can reduce humidity, which can help dry ticks out and kill them. Acaricides can be used on the edge of lawns if desired. Follow all label guidelines when applying and take precautions to protect pets during applications.
In addition to environmental prevention, it is important to talk with your veterinarian about tick control options for your pet. A big benefit of these products is that they also control fleas and some repel mosquitoes, which carry the pathogen that causes heartworm disease. Today we have access to a wide variety of flea and tick products, including sprays, collars, spot-on products, and oral products. In general, sprays provide only short-term protection, so many pet owners opt for more long-term options. Spot-on and oral products typically provide protection for one to three months depending on the product, while some collars can last as long as eight months. Different products may be preferred for certain pets. For example, the duration of protection for some spot-on products can be shortened by swimming and bathing, so your veterinarian will take your pet’s lifestyle into account when recommending a product. Also, if your pet is particularly adventurous and often encounters ticks, your veterinarian can recommend more aggressive options for tick control. When selecting a tick control option for cats, never use products labeled for dogs only. Many dog products contain permethrin, which is highly toxic to cats and can cause severe tremors and seizures.

Although we have recently seen many advances in tick protection, these products are not perfect. During tick season (generally spring through fall in Pennsylvania), it is important to check your dog for ticks after being outside or at least once a day since we know that the pathogen that causes Lyme disease can be transmitted from the tick to your dog in as little as one day. Especially in long-coated dogs, checking for ticks is best done with both your eyes and your hands. Often, ticks buried deep in the fur can be felt even if they cannot be seen.

It is important to talk with your veterinarian about tick control and Lyme disease prevention for your pet. In addition to products to prevent bites, there are vaccines available for Lyme disease. These vaccines can prevent or at least reduce the severity of Lyme disease should your pet be exposed. They are an added layer of protection that your veterinarian may recommend based on your pet’s lifestyle. Your veterinarian may also recommend a yearly blood test to check for common tick- and mosquito-borne diseases in your pet to monitor for exposure to disease and allow for prompt treatment when necessary. Although tickborne diseases are worrisome, your veterinarian can help you put together the best plan to protect your pet. If you have questions about tick identification, contact the Penn State Insect Identification Laboratory.

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