**Glen Mills Veterinary Hospital**

**1785 Wilmington Pike**

**Glen Mills, PA 19342**

**610-558-0100 (t) 610-558-0102 (f)**

**TICK BORNE DISEASE**

**What are Ticks and How Prevalent are they in PA?**

Ticks, of which there are more than 500 species world-wide, are parasitic arthropods closely related to mites. Most ticks feed on the blood of warm-blooded mammals but some species also feed on birds, reptiles and even amphibians. Currently, more than 25 species of ticks have been identified in Pennsylvania. Of these, the following types are of particular concern: 1) the American dog tick, Dermacentor variablis ; 2) the blacklegged or deer tick, Ixodes scapularis; 3) the lone star tick, Amblyomma americanum; 4) the brown dog tick, *Rhipicephalus sanguineus.*

**Pennsylvania and nearby Northeastern states are considered to be endemic for ticks.**

**Are Ticks a Seasonal or Year-round Problem?**

Myth: Ticks aren't a problem in the winter, when it's too cold for them to live outside.

**Truth:** Ticks can be found year-round, but are most visible in the warm summer months. They feed on blood, so they are continually looking for a host to latch onto for a meal. When hosts cannot be found, a tick can go for months, sometimes more than a year, without feeding.

In the winter, some tick species move indoors and are in even closer contact with pets and people, while others make a type of antifreeze to survive during the winter months. Ticks can be active outside on winter days if the ground temperatures are above 45 degrees Fahrenheit. In general, ticks require moisture to survive and a snowy winter is just what they need to thrive.

A

t our hospital, we see a large number of tick borne disease cases regularly, many of which are pets that are only on intermittent or seasonal tick prevention. The safest option for your dog in PA is to provide year round tick control, in the cold winter months as well.

**Should I Worry about Ticks if I don’t live or take me Dog to Wooded Areas?**

Myth: Ticks live in trees, so as long as I don't live near or visit a wooded area, I don't have to worry about them.

**Truth:** Ticks live on the ground no matter the locale, be it an urban park or a rural area. Ticks wait for host animals on the tips of grasses and shrubs. They are not commonly found in trees. When brushed by a moving animal or person, they let go of the vegetation and climb onto the host. Ticks can only crawl; they cannot fly or jump.

**Should I worry about ticks if I don’t have deer in my neighborhood?** Yes. In addition to deer, potential hosts include cattle, horses, dogs, cats, coyotes, bobcats, fox, squirrels, small rodents, and even some reptiles.

Given the itching that is caused by a bite received from a tick, one would assume that most mammals would try to remove them. Unfortunately, most animals are not successful. The average mouse has 25 larval ticks, the average squirrel 150 and the average opossum 250.

**What are some leading Canine Tick Borne Diseases that I should be concerned about in PA?** Lyme, Ehrlichiosis, Anaplasmosis, Babesiosis, Rocky Mountain Spotted Fever, and Tick Paralysis.

**What clinical signs might my dog display if he/she has a tick borne disease?** Interestingly, some dogs never develop signs of a tick borne disease. When they do show signs however, the symptoms can range from subtle to profound. Severity depends on what kind of disease the patient has and what organs are affected. It is unlikely for your dog to display all of the symptoms but the list gives you a sense of how much bodily harm can develop from tick borne disease.

* lameness in one or more legs
* gastrointestinal signs such as vomiting, diarrhea, or anorexia (lack of appetite)
* fever
* lethargy (mild to severe), depression, weakness
* neurological signs including seizures, loss of coordination, or paralysis
* blood from any orifice
* nosebleeds
* edema (swelling) of the extremities
* bloodshot and glassy eyes, retinal hemorrhages, dilated pupils, or light sensitivity
* pale gums or tongue
* cough-deep or merely hacking
* liver, kidney failure
* increased thirst and urination
* bleeding under the skin or a rash (purpura)

**Do Cats get Tick-borne Disease or Lyme Disease?** Fortunately, Cats are rarely affected with tick-borne diseases. However, Cytauxzoonosis, Babesiosis, and Ehrlichiosis can be devastating tick-borne diseases for cats.

**What causes Lyme Disease and what does it look like in Dogs?** Lyme Disease is caused by Borreliosis burgdorferi bacteria. Many dogs are asymptomatic however the ones that do exhibit signs are most likely to have a fever, reluctance to run or walk, and lameness due to inflammation of the joints. These pets may also have a lack of appetite and be depressed and sluggish. More serious complications include kidney failure, and rarely heart or nervous system disease. Note, dogs do not get the classic “bulls-eye” skin rash seen in humans.

**Should my dog be Lyme vaccinated?** The Lyme vaccine is an optional vaccine. We recommend it because Lyme disease is endemic in Pennsylvania. No vaccine is 100% effective but the Lyme vaccine works well at protecting most dogs.

Please note electing to get your dog Lyme vaccinated does not eliminate the need for topical control. Monthly topical tick prevention year round is still paramount because other tick borne diseases are present in PA and the vaccine is not 100% effective.

**What’s the best way to remove a tick?** Contrary to what you may have heard, burning ticks with matches or coating them with Vaseline doesn’t cause them to back out of the skin after they’ve already attached. At worst, these techniques can stress the tick, causing it to release more saliva into the bite wound, increasing the chances of spreading an infectious disease. You may try to remove the tick at home or bring your pet in and we can remove it here.

If you try to remove the tick at home, take a pair of tweezers and grasp the tick as close to the skin as possible. This reduces the possibility of the head detaching from the body upon removal. **Be sure that before you do this the “tick” is not a pigmented nipple or a skin mass.** Pull the tick straight out with steady, even pressure. Do not twist or jerk the tick as this may cause the mouthparts to break off and remain in the skin, increasing the chances of infection. Also, the more the tick is stimulated, the more likely it will transmit a disease. Continue applying steady pressure even if the tick does not release immediately. It may take a few minutes of constant, slow pulling to cause the tick to release.

After removing the tick, disinfect the bite area and wash your hands with soap and water.

If the head of the tick remains embedded in the skin, it may cause infection. If you see that the head is still in the skin or if the tick bite site gets inflamed or develops discharge, please schedule your pet for an appointment.

**If a Tick bites my dog, How long before Clinical Signs develop? When should I test my dog after I pulled a tick off?** Some dogs are thought to develop signs early on, before the blood stream has even had a chance to create antibodies. Other dogs don’t show signs until months after exposure.

If you are worried about past tick exposure, then you may test anytime. If your primary concern is a recent tick bite, you should consider testing 1 month later.

**Are Tick Topicals SAFE?** Topical Tick preventatives are safe when used properly. The occurrence of an adverse reaction is low with any topical tick preventative. The most serious adverse events occur when tick preventatives made for dogs are applied to cats or when the directions for administering the product are not properly followed. When applied appropriately topically, they are not absorbed into the bloodstream or internal organs.

Topical tick medication can cause itching or brief irritation at the application site. In a small proportion of animals, some tick products can cause paresthesia - a tingling sensation at the application site. This paresthesia is usually mild and self limiting; small dogs are more often affected than large dogs.

When applied properly to pets, flea and tick products can help protect both humans and animals from flea and ticks, but also prevent transmission of infectious diseases. Adverse reactions in dogs or cats resulting from misapplication can include skin effects such as irritation or redness; gastrointestinal problems such as vomiting or diarrhea; or more serious effects to the nervous system such as trembling, depression or seizures.

**What Products Should I Use?**

There are many options and there isn’t one product considered universally ideal for all pets. Our veterinarians have deliberated on what products we think are currently best and we outline those below.

**DOGS**

For good tick and excellent flea protection (addresses adult and juvenile fleas), you may use **K9 Advantix II or Frontline Plus**.

**K9 Advantix II** (Imidocloprid, Permethrin and Pyriproxifen) is a monthly topical effective against ticks, fleas, sand flies, mosquitoes and stable flies. K9 Advantix is safe for use in dogs seven weeks of age and older. One of its ingredients, permethrin, is toxic to cats; K9 Advantix II must never be applied to cats. To prevent cats from being accidentally exposed to the product, keep treated dogs away from cats after treatment for 24 hours or until the application site is dry. It is important to ensure that cats do not groom the site of application on a dog, which has been treated with this product.

**Frontline Plus** (Fipronil and (S)-methoprene ) is a monthly topical that kills ticks within 48 hours of contact with your treated pet. It is approved for use on puppies and kittens 8 weeks of age and older and in breeding, pregnant or lactating cats and dogs. It also prevents kills adult fleas, inhibits development of juvenile fleas, kills chewing lice and controls the mite that causes sarcoptic mange. Frontline Plus is considered the safest choice for homes with cats and dogs living together in close contact with each other.

**CATS**

We recommend **Frontline Plus** for cats. It is a safe, effective medication.

**What should I be weary of in terms of online pharmacies?**

Products that are not purchased from a veterinary hospital (pet supply stores or online pharmacies) may come from black market sources and may not be effective, or worse can be detrimental to your pet. They are not guaranteed by the manufacturer. There are numerous cases of these medications being tapered with and then sold to the community. Please be cautious with your purchases.