Lyme Disease

What is Lyme disease?
Lyme disease is caused by a bacterium, *Borrelia burgdorferi*; transmitted by ticks that are commonly found on wild deer and rodents. The tick passes the bacteria along by injecting it when the tick bites a human or animal. This transfer can occur after feeding for as little as 24 hours. Not all ticks carry the bacteria that cause Lyme disease. The black-legged or deer tick, known as *Ixodes scapularis*, is the main tick species that can transmit Lyme disease causing bacteria. On the west coast, the western black-legged tick, *Ixodes pacificus*, can also be involved.

What are the signs of Lyme disease?
Most dogs (90 to 95 per cent) that are infected do not get sick. Their body eliminates the bacteria and no problems develop. In some dogs, disease may occur. This can be subtle and include signs such as a stiff walk with an arched back, sensitivity to touch, fever, lack of appetite, depression, and inflammation of the joints and lymph nodes. Signs of Lyme disease usually occur weeks after a tick bite.

How often should my dog be tested for Lyme disease?
The need for testing will be determined by your dog’s lifestyle and your geographic location but, most often, testing is reserved for dogs that have signs of disease that could indicate Lyme disease. A discussion with your veterinarian about your dog’s risk factors can help you determine when your pet should be tested. Knowing the prevalence of this disease in your area and where you travel with your pet will be important for determining the course of testing and preventive(s) you will choose in consultation with your veterinarian.
How can I protect my dog from Lyme disease?
Avoidance of tick-infested areas is the best prevention. After walking in areas with grass, run your hands over your dog’s fur to check for ticks, paying close attention to their ears, head, neck, belly and feet. It can be very difficult to identify nymph or immature ticks on your pet because they are tiny. A fine-toothed comb may assist with removal of these. Effective preventive medications are available from your veterinarian to help repel ticks on your pet. Note that many preventives work by allowing a tick to bite, and when it drinks blood, it drinks in the medicine that will kill it so it drops off the dog. Product manufacturers may not give 100 per cent guaranteed protection against Lyme infection but these products are considered very effective. Vaccination against Lyme disease should be considered for pets that live in endemic areas (those areas with established populations of ticks carrying Lyme) or that travel to areas where Lyme disease is prevalent.

How do I remove a tick from my dog?
Using tweezers or a tick tool, carefully grasp the ticks head and mouth as close to the skin as possible and gently pull the tick straight out. Do not twist as you pull and try not to squash the tick as you remove it.

Update on Lyme disease in Canada
Tick populations are on the rise in Canada. In 1990, ticks carrying Borrelia bacteria were found only in some specific areas of southern Ontario (such as Long Point and Turkey Point). Today, they have been identified in other parts of southern and eastern Ontario, Nova Scotia, southeastern Manitoba and New Brunswick. Ticks carrying Borrelia have been recently identified in British Columbia, Saskatchewan, Quebec and Alberta. As our climate warms, ticks are expected to move northward 15 to 30 km a year in range, bringing with them tick-borne illnesses including Lyme disease.

(3.11.2016)
Reviewers:
Dr. Kathleen Cavanagh, Online Editor, CVMA
Dr. J Scott Weese, Canada Research Chair in Zoonotic Diseases