

## **Lyme Disease in Florida Horses<sup>1</sup>**

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### **Can Florida Horses Get Lyme Disease?**

Lyme disease does affect horses, but is relatively unstudied compared to the disease in humans and dogs. It often presents as lameness, but other symptoms can occur.

### **How Do Horses Get Lyme Disease?**

The bacteria that cause Lyme disease, *Borrelia burgdorferi*, is transmitted by the black-legged tick, *Ixodes scapularis* (Figure 1).

Adult black-legged ticks are usually host-seeking from October through April, and will feed on most medium to large-sized mammals, including humans, horses, and dogs. Immature ticks are difficult to find in Florida, unlike other parts of the country, and generally feed on lizards, small mammals, and birds. The black-legged tick is most commonly found in wooded areas or along the edges of wooded areas, although they can be brought into other areas while attached to hosts.



**Figure 1.** *Ixodes scapularis* - the black-legged tick.  
Credits: James M. Newman, FMEL

### **Distribution in Florida**

The bacteria which cause Lyme disease is present in Florida, but we have little information on

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how prevalent it is or its geographic distribution. There are very few Lyme disease cases in Florida compared to areas like the Northeastern US. The black-legged tick is found throughout Florida, but is not very abundant.

## Symptoms, Diagnosis, and Treatment

Symptoms of Lyme disease in horses include fever, stiffness, muscle pain, and swollen joints. The disease can progress to involve the neurological system, including behavioral changes. Diagnosis is made by clinical history, symptoms, and a blood test for antibodies to the bacteria. It is important to note that the blood test indicates exposure to the bacteria only, not whether there is an active, current infection. Subclinical infections, where the animal is infected with the bacteria but does not show any symptoms, are common. Thus, animals living in areas where Lyme disease is present may be exposed and have antibodies (and so would test positive), but do not have clinical illness. Symptoms can take a long time to develop. It is possible for a horse (or human!) to be infected by a tick bite while living in one area, but not show symptoms or be diagnosed until later, after moving elsewhere. This complicates our understanding of the disease and its transmission. Because Lyme disease is not well-studied in horses, we have little information on how long it can take for symptoms to appear.

Treatment for Lyme disease is antibiotics. Earlier treatment is more successful in humans, and very likely for horses as well. However, Lyme disease can be difficult to diagnose and may not be detected until long after the tick bite. Treatment with antibiotics is often helpful even in later stage Lyme disease, but it may take more intensive or longer treatment.

## How Can I Protect My Horse from Lyme Disease?

The best way to prevent Lyme disease in horses is to reduce contact with ticks. The black-legged tick usually must be attached for at least 24 hours before transmitting bacteria. Frequent tick checks and removal of any attached ticks, particularly after the

horse has been in areas known to have ticks, will reduce the chances of transmission. Many fly sprays, lotions, or spot-on treatments are also labeled for use against ticks, particularly those containing pyrethrins such as permethrin. These treatments can repel ticks and reduce attachment. Use all pesticides according to the label directions. If a tick does attach, remove it by grasping the tick as close to the skin as possible and pulling straight back. Tweezers or forceps will help. Do not squeeze the tick's abdomen; this will inject the gut contents into your horse (or you!). The folk remedies for removing ticks (heat, Vaseline, oils) do not work and will not cause the tick to detach. Apply antibiotic ointment to the attachment site if the tick mouthparts broke off and remain in the site, or if there is an open wound. There is a Lyme disease vaccine available for dogs, but not for horses.

## For More Information

Articles on these sites may be helpful:

[www.myhorsematters.com](http://www.myhorsematters.com); search for Lyme (horse owner page of the AAEP site)

<http://www.easterndrafthorse.com/Health/lyme.htm>

However, these articles are written primarily for more northern areas. In Florida, the adult ticks are active all winter!

Other fact sheets about ticks, horses, and protecting horses from diseases transmitted by insects and ticks are available from EDIS:

Protecting Florida Horses from Mosquitoes - Fact sheet IN181

Lyme Disease in Florida - Fact sheet IN121

*Ehrlichia* in Florida - Fact sheet IN191