

Equine Lyme Disease

Lyme disease is caused by a bacteria called *Borrelia burgdorferi* that can infect multiple species including horses, dogs, and humans. In the past several years progress has been made in defining the clinical presentations of Lyme disease in the horse. Improved detection methods, evolving treatment, as well as vaccination need to be discussed.

The *Borrelia* species is transmitted by ticks that feed on mammals. Generally, the tick must be attached to the host for 24-48 hours to transfer the *Borrelia* organism to the host. While this is occurring the *Borrelia* changes its surface. It down-regulates an outer surface protein (OspA) and up-regulates other outer surface proteins (e.g., OspC, OspE, and OspF). *Borrelia* likes to reside in connective tissue and collagen, including skin, muscle, nerves, blood vessels, and tissues around joints.



There are a wide variety of clinical signs linked to Lyme disease. It has been difficult to fully define what is caused by Lyme disease due to our inability to fully study this disease in a controlled research setting. That being said, common symptoms include stiffness and lameness in

multiple limbs, muscle soreness, increased sensitivity to touch, lethargy, and behavioral changes. Joint swelling is uncommon in horses. Muscle wasting and pain along the back has also been reported. There are now some cases in which horses are neurologic as well.

Diagnosis is based on symptoms and a blood test. Cornell University offers a multiplex assay test that looks for antibodies (a part of the immune system that fights off the infection) present in the blood sample that are specific to the outer surface proteins mentioned above. It has largely replaced the Lyme titer and SNAP tests performed since it became available. A key part of diagnosing your horse as having Lyme is ruling out other diseases or causes for the symptoms seen. A poorly fitting saddle, for example, can lead to similar back soreness and lameness that horses with Lyme show.

There is no perfect way to treat your horse if it has Lyme disease. Most commonly, horses are given doxycycline twice a day for a minimum of thirty days. However, recently promise has been seen with Minocycline; this antibiotic reaches a therapeutic level in the blood far more effectively than doxycycline. In certain cases, we may also recommend starting treatment with Oxytetracycline, an intravenous antibiotic.

Is there any way to prevent Lyme disease? The best way is to run your hands over your horse daily and remove the ticks as soon as you find them. Remember, they need to be attached to the horse for a minimum of 24 hours to be able to transmit the disease. Additionally, some practices have started using a vaccine that was designed for use in dogs. It is not labeled for use in the horse, but people are desperate. So far, research shows that using the dog vaccine could mitigate the prevalence of Lyme in horses, however scientists are still trying to determine the best protocol. We will be happy to discuss

the pros and cons of vaccinating your horse for Lyme disease this spring. Please be sure to ask us at your next appointment.

Chiropractic Care & Saddle Fit

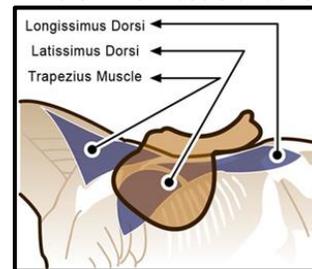
One common problem we see in the field is altered movement due to improper saddle fit. Many times pain, pressure points, and vertebrae with reduced range of motion are found under where the saddle sits.

The Basics: Ligaments connect bone to bone, Tendons connect muscle to bone. Muscles are connected to bone by tendons. Common factor: all 3 are in one way or another connected to bones including vertebrae.

Chiropractic care assists in restoring the normal motion of the vertebrae in an effort to re-establish neurologic transmissions branching out from the spinal column. These neurologic transmissions are what make your horse coordinate movement, restore and maintain proper muscle function and metabolism, and stabilize joints.

What happens when your saddle does not fit your horse?

An ill-fitting saddle can cause pressure points on your horse. These points cause the muscle effected to be in constant contraction while being ridden. Not all muscles need to be contracted while you work your horse. Muscles work like a fine tuned orchestra with some relaxing and others contracting and are constantly changing roles within each stride. If one muscle is being stressed with continual contraction this balance is altered. For example, the trapezius muscle is used to elevate the shoulder and draw it back. It has two branches. One is cervical which branches from the spine of the scapula up the neck and the other is thoracic which goes across to the withers. This muscle attaches to the thoracic spine/withers by a ligament called the supraspinous ligament.



A saddle that has too small of a gullet may put a pressure point on the trapezius. The pain and constant contraction of this area will impede your horse's ability to lift its shoulder and extend the stride.

Connection of Chiropractic care and Saddle Fit Earlier we mentioned that muscles are attached to tendons which attach to bones, including vertebrae. If these muscles are in constant contraction the entire movement of the system of tendons and bones are altered. Chronicity of the problem saddle can cause fibrosis of affected areas as well as behavioral issues in your horse. Chiropractic adjustments combined with proper saddle fit help to restore the normal motion of the vertebrae and allow the muscles to heal as well as breaking the pain cycle for the horse.

Equine Acupuncture

This is a great complement to Western medicine to diagnose and treat horses. Many lameness conditions may gain valuable information and responsive treatment from an evaluation. Other conditions can also benefit including but not limited to anxiety, heaves and fertility issues. Equine Acupuncture consists of a 30-60 minute session which includes 'scanning' of several points for sensitivity and injection of certain points based on history and sensitivity. If you have ever considered it give us a call. Your horse will thank you!

Strategic Deworming

Beginning five years ago, equine deworming began to take a turn from the aggressive, frequently administered approach to a more strategic protocol based on fecal egg counts and risk factors. The increasing reports of resistance to all of the dewormers (including ivermectin, excluding moxidectin) sent a shiver through the industry as no new classes of dewormers are in development. Research has demonstrated that a measured approach could help to prolong the effectiveness of the current products and reduce the costs of deworming our horses.



Research also showed that 25-30% of horses shed 80+% of internal parasite eggs. These are the horses that need to have an aggressive program (4-6 times a year with selected products). Horses that have low egg counts and acceptable risk factors (age, health, management) may only need deworming twice a year.

The experience in our lab agrees with the research of the 25-30% being high shedders. We have also found that the “eyeball” test does not accurately detect who these shedders are. More often than not it is not the skinny horse who is contaminating the pasture.

The Vaccine Clinics are a great way to submit fecal samples for analysis. The best results are from samples taken after April 1st. Three (3) fecal balls sealed in a plastic bag is adequate. Please label the bag clearly with the owner and horse's name. Knowing the age of the horse and last time dewormed and product used is also helpful. Please call the office or go to our website, oakencroft.org, if you have further questions.

An Educated Gamble

Have you ever wondered just what a foal out of your favorite mare would be like? Would it have her looks, her personality or her work ethic? Would you prefer if it had slightly shorter pasterns, a more sloping shoulder or a shorter back? Thanks to improved techniques in semen shipping and handling you can breed your mare to stallions from all over the world. You can pick a stallion for your mare that, as the old song goes “accentuates the positive”. How can you guarantee that you get only the best of the mare and the stallion? You can't, but you can look at other babies by that stallion and make an educated gamble.

After all, so much of breeding is exactly that, an educated gamble. The decision to breed a horse is a big one. Will you sell the baby or will you keep it? If you plan to sell what is your target market? What are those babies selling for? Many breeders do not make a profit on each individual foal, their profit comes from selling many foals and having those outstanding individuals who bring up the average of the group. Can you afford the initial costs of breeding? These include vet bills, stud fees, feed and farrier bills. Simple, easy breedings that result in healthy foals still cost over \$1000 in vet bills to get the mare in foal, plus vaccinations and well-baby exams. Then you have the costs of raising a foal to sales age. Now we don't mean to talk you out of breeding horses, we love helping owners have healthy foals, but we want you to understand



what you are getting into when you do it. So if you have questions, or you are ready to make that educated gamble, give us a call.

Equine Health Insurance

First a disclaimer: Equine Clinic at OakenCroft is not in the insurance business. We don't buy or sell coverage, but we do provide comprehensive health care for your horse. As a result, we get frequent questions from our clients about our thoughts on these questions: *Is insurance a good thing for my horse? Will it help me to pay for treatment of my horse if he is sick or injured?*

In the past, the primary purpose of horse insurance was focused on mortality (death loss for any reason) and, many times, loss due to theft. These policies are based on the fair market value of the horse. Premiums are based on a percentage (3% and up) of the horse's value and may vary with the use of the horse and the inherent risk in this use. Some policies may demand that any and all lifesaving procedures be done if recommended by the attending veterinarian. Only a recommendation of euthanasia negates this demand.



As in any profession, equine health care and surgery has progressed. Colic surgeries -- while still complicated -- are highly successful. Orthopedic injuries that were career ending in the past now have a

more favorable outcome with sophisticated diagnostics and treatments. But what happens if your horse has a severe laceration? Or experiences a colic that is not surgical? Or a medical condition such as laminitis that requires extensive work-up, treatment and cost?

This is where surgical and major medical policies come in. These policies, while not open-ended, can cover the expense of a myriad of conditions and treatments. They can allow the owner to pursue options that may otherwise be cost prohibitive.

These policies certainly have restrictions such as prior conditions and age that may rule out coverage. One thing that is typical of an equine insurance policy is that it is a one-year contract renewable each year. This means that if colic surgery is performed, or an orthopedic claim has been made for a certain condition, these issues will not be covered in the next renewal. However, some prior conditions may be returned to coverage after a suitable length of time.

If you are interested in equine insurance, then be sure to do thorough research about the agent and the underwriter, and review the fine print of the policy. Many fine, reputable companies are available, but as in any business transaction due diligence prevents misunderstandings and fraud. You should deal with equine and livestock professionals. Policies offered through home owner's coverage are generally not backed by agents and companies who know the horse business.

An owner should evaluate any coverage in light of its costs and potential rewards if his horse is sick or injured. Our experience shows that the equine insurance industry can and does allow the average horse owner to insure their horses for a reasonable amount of money that in turn may preserve their life and/or ability to perform their job.

Mark Your Calendars!

This year we are offering another exciting line-up of events to be hosted at our clinic!

- Client Education Clinic & Open House – **Saturday, March 15, 2014**
- Youth Day – **Saturday, September 20, 2014**
- The Castration Project – **Saturday, October 4, 2014** (Applications open August 1st)
- Farriers & Veterinarians Conference – **Friday, October 17 & Saturday, October 18, 2014**

Our events last year were such a great success we want to keep it going in 2014! Check our website frequently for the most up-to-date details on each event. The veterinarians and staff at ECO really look forward to seeing our clients at these occasions. Youth, 4H, Pony Club, and rescue groups are offered special pricing. We ask that you please register beforehand so we can plan attendance and refreshments accordingly. You may do so by calling the clinic at **518-767-2906** or through email at equineclinic@oakencroft.org.

The Equine Clinic at OakenCroft

880 Bridge Street
Ravena, NY 12143
518-767-2906
518-767-3503 (Fax)
<http://oakencroft.org>



Visit us on the web at <http://oakencroft.org> for upcoming events, current information, directions, and our convenient online pharmacy!
You can also follow us on Facebook and Twitter @ECOVets!



Please note: There are some changes to the Vaccine Clinic program this year. In order to maintain vaccine fees at affordable levels, we have discontinued the discount for payment at time of service. Also to qualify for the discounted farm call, payment must be made at the time of service. If you will not be present when your horse is vaccinated, then you need to leave payment in full (cash, check or credit card) or have made prior arrangements with the Equine Clinic office with a valid credit card. If this is not done, then services will not be rendered. Any return trip to administer vaccine clinic services will be charged in full.