



Spring 2020 News Letter

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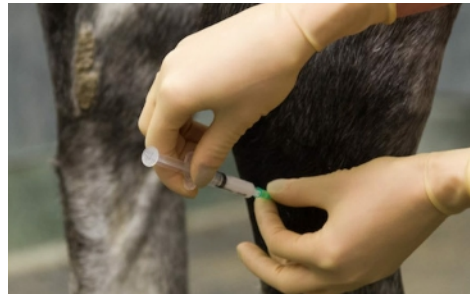
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An Overview of Joint Maintenance

Dr. Brady Hellman, DVM

Most everyone in the equine world has heard of joint supplements and/or joint injections for horses. Some swear by this supplement or that, or maybe

someone insists that your horse is moving in such a way that suggests they need hock/neck/coffin joint (etc) injections. What does it all mean? What is best for your horse? Below is a brief overview of some of the most common supplements as well as a short description of joint injections.



Oral joint supplements:

There are a plethora of oral joint supplements on the market. This includes any supplement given by mouth for the benefit of improving joint health and comfort in your horse. Most of these supplements contain MSM, Glucosamine, Chondroitin sulphate, Hyaluronic acid, or some combination of these. Keep in mind that your horse is only able to utilize roughly 20% of any

joint supplement given orally. Therefore, the amount of active ingredient in the supplement is of utmost importance. Here are some guidelines for levels (assuming a 1000lb horse) to look for in a joint supplement in order to be effective.

Chondroitin Sulphate forms the building blocks for cartilage and synovial fluid. It helps to slow the breakdown of joint cartilage. Look for supplements providing 1g/day.

Spring Specials



- 20% off CBC/Chemistry bloodwork
- 20% off of Vitamin E and Selenium levels
- 50% off physical exam when done at the time of vaccinations





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Glucosamine is a natural component of cartilage. It helps to heal and regenerate joint cartilage. When picking a supplement, look for one that provides 10grams/day.



Hyloronic Acid is the main component of joint fluid. The joint fluid is what lubricates and cushions the joint. Given orally, aim for 100mg/day.

MSM (methylsulfonylmethane) provides joint mobility and flexibility. It also has anti-inflammatory properties. Aim for 10-20grams/day.

Injectable joint supplements:

The two most common injectable joint supplements are Adequan and Legend. You may have heard of others that claim to be the same as Adequan or Legend, or ones that work differently. Adequan and Legend are the only two tested in horses and manufactured for the purpose of improving joint health in the horse. A great deal of money has gone in to making sure these products are not only safe, but effective in the horse. Keep in mind that the horse will absorb and utilize 100% of the Adequan and Legend. That's a pretty great bang for your buck!



Adequan is polysulfated glycosaminoglycan. This is an injectable medication of which glucosamine is the main component. It is given in the muscle. Adequan is aimed at improving the health of the cartilage within the joint. This is a great one for not only treating, but preventing damage to the cartilage in the joint. The current recommendation is to give 7 injections 4 days apart twice yearly.

Legend is an injectable form of Hyloronic Acid. Essentially, this is a joint

Did you know?



LAMA is welcoming a new team member!

Ashley Cooney

Look for her out on the road assisting the doctors.

lubricant. However, when given IV (or orally) it works also works as a anti-inflammatory agent and stimulates the production of hyloronic acid within the joints. Legend is given IV. This is very beneficial to horses with arthritis as it decreases inflammation, and therefore, pain within the joints. Legend requires a loading dose. Most often, it is given once a week for 4 weeks and then monthly after that.

Joint Injections

With joint injections, medication is deposited directly into a joint. Most commonly, a steroid is used to help decrease inflammation and pain associated with arthritic changes. In some cases, hyloronic acid is added as a lubricant.

Often times, a lameness work up and radiographs proceed joint injections. Injections are generally repeated every 6-18 months depending on the severity of the joint disease. While the risk is

Did you know?



If your horse has a vaccine reaction that requires medical attention, the vaccine company may reimburse you for expenses as long as the vaccination was purchased through and given by your veterinarian? In most cases, this claim is made by the veterinarian on your behalf.



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small, infection or a 'flare' can result from joint injections. A flare is the term used for an inflammatory response to the medications being deposited into the joint. There is rarely long term consequences to a flare, but it does cause discomfort in the short term and needs to be treated appropriately. An infection is very serious and requires prompt and aggressive treatment. If the infection is not immediately addressed and brought under control, there may be long term damage to the joint. Of course, all precautions are taken to avoid an infection- including surgical scrub of the injection sight, a sterile technique, and depositing a small volume of antibiotics into the joint at the time of injection.

It is always best to check with your vet prior to deciding what treatment is best for your horse and situation. Often times, a multifaceted approach is best to long term joint health. An evaluation of your horse in motion with a veterinarian is the first step in devising a plan. Every horse, owner, and budget varies,

so the approach should be adjusted accordingly.

Tick Season is coming!

Dr. Gemma Gerardi, DVM



Top left - brown dog tick,
Top right - lone star tick,
Bottom left - American dog tick,
Bottom right - black legged (deer) tick.
(photo courtesy of the CDC)

Are you wondering about all these seemingly new tick borne diseases? If you're thinking "Where were these diseases when I was a kid?" or "I've never heard of that" you're not alone. The reason is, many of these diseases actually weren't around when you were a kid, and they have been increasing exponentially in recent years. These diseases include Anaplasma, Lyme, Erhichia, Babesia, and Powassan. Of these Anaplasma and Lyme commonly affect horses in Vermont. And all are

transmitted by the black legged tick (aka deer tick)



Deer tick for size reference

If your horse has had a fever in the last several years, its likely that your vet mentioned the possibility of him or her having Anaplasmosis. Anaplasmosis, caused by the bacterium *Anaplasma phagocytophilum*, used to be called *Ehrlichia equi*, so you might have heard it referred to as "erhlichiosis". Like many species of bacteria, as more is learned about the genetic make up of the organism, they get re-classified and re-named according to their relationship to other known bacteria.

Anaplasma was first identified to cause disease in humans in the mid 1990's. It is transmitted by the black legged tick (aka deer tick) and the western black legged tick. In humans, cases of the disease are reported to the Center for Disease Control (CDC). As a result of this reporting, we have more epidemiological information about clinical cases in humans than we do in horses. However, because disease is caused by the same organism in both species, we can

Did you know?



What do you call it when an alpaca gives birth?

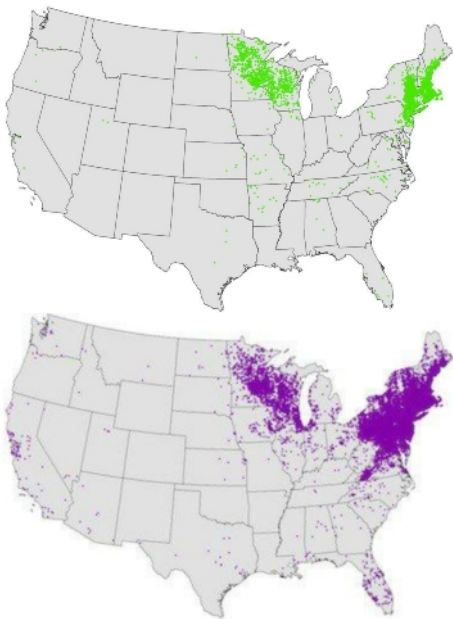
Unpacking



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draw conclusions about the prevalence in horses. Looking at the numbers of human cases, there were 348 cases reported in 2000, and 5762 cases reported in 2017. And, even though the deer tick inhabits most of the eastern United States, 90% of the cases reported in 2017 were from just 8 states (Maine, Vermont, Massachusetts, New Hampshire, Rhode Island, New York, Wisconsin and Minnesota). Additionally, since 2015, Vermont has had the highest incidence rate of human cases in the U.S.!!



Top - Human cases of Anaplasma reported in 2016

Below - Human cases of Lyme reported in 2016

(Photo courtesy of the CDC)

So what is causing this increase in cases? Partly, the tick population has expanded. Partly, we are now on the look

out for new cases, and we have diagnostic tests to confirm our suspicions. So, what are the typical clinical signs in horses? Most notably, a fever, often quite high in the 104 degrees range. Many, but not all horses, will develop edema of the limbs or ventral abdomen. Some will show a slightly yellow coloration of their gums and whites of their eyes (jaundice or icterus). Rarely, horses develop neurological disease, and can show profound incoordination. There are several diagnostic tests available. These include a blood smear, where one can see the organism inside the horses white blood cells, a PCR test, that can identify bacterial DNA within the horses blood, and finally an antibody titer, which looks at the horse's body's immune response against the organism.

The good news is, anaplasma is generally very responsive to treatment with tetracycline antibiotics. Horses tend to feel much better after 24-48 hours of treatment, but are treated for 4-5 days (sometimes longer depending on the case). Because the testing is performed at an outside laboratory, when there is a high index of suspicion, we do not wait for test results before starting treatment. Having said that, it is a good idea to submit testing because there are several other diseases that cause similar symptoms. These include Poto-

mac Horse Fever, Corona Virus, and respiratory viruses such as Equine Influenza, Equine Herpes Virus).

So, what can we do to try to protect our horses? There is no vaccine for anaplasmosis. Unfortunately, eliminating all exposure to ticks is impossible. There are topical products that are safe to use on horses. UltraBoss is a permethrin pour on labeled for horses, Freedom 45 is a topical spot on labeled for horses, Frontline spray, although not labeled for horses, has been used with decent results, and vectra labeled for large dogs, can be used on horses. Ticks are out any time the daytime temperature is above freezing. So even though they are most active in the spring, summer and fall, they do not completely go away in the winter.

Lastly, don't forget to check yourself for ticks after you come home from the barn!

Lambing and Kidding

Dr. Stephen Angelos, DVM, DACVIM

What to watch for and when to call for help!

This is the time of year when many of the large animals we work on are lambing or kidding (or foaling or unpacking-the term for when a llama or alpaca has a cria!). Most of the time,



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these are events that proceed as nature intended, and little help is needed. However, there are times when assistance is essential. This can range from a small amount of pulling or repositioning on a leg, to a caesarian. While the number of times assistance is needed is very low in comparison to the number of normal births, you should know when a birth is normal, when to call for verbal assistance, and when emergency intervention is needed.



One of the first steps to being prepared is to know when your animal is expected to give birth. In cases when an exact breeding date is known, there is less guesswork for knowing when a birth will occur. This is often not the case, especially in sheep. In these cases, there is usually a general idea as to when lambing or kidding will be happening based on the first and last date that the ram was with a group of ewes. In horses, bred mostly by artificial insemination, expected birth dates are usually known.

Gestation lengths of common domestic large animals:

Sheep: 145-150 days; Goats: 147-155 days; Llamas: 11 months; Alpacas: 11-12 months; Horses: 11-12 months

The good news is that there are clues as to when birth will occur and it is important to watch for these signs so you can be prepared: udder development, relaxation of the pelvic ligaments, changes in external perineal anatomy like elongation of the vulva, and behavior changes like separation from the group, or nesting are common signs. In late gestation, it is essential that you be aware of any animals that go off feed or appear to not feel well. Pregnancy toxemia is a condition in sheep and goats and needs immediate diagnosis and treatment.



When things go right:

For all the animals we work on, the normal delivery begins with stage 1 of labor, which is cervical dilation. This is the time when fetal fluid or membranes may be visualized. Stage 1 is followed by stage 2, which is when the mother is

having active contractions and the lamb or kid is born. Stage 3 is defined by the passing of the placenta. As a rule, these stages are separated by about 30 minutes, but there is a large amount of variation between animals even during a healthy delivery. During stage 2 of labor, it is normal for the tips of the front legs and the tip of the nose to appear at the vulva. If you don't see two feet and a nose, something isn't normal. This is how you know when an incorrect presentation is occurring. It is at this point that you should either call for assistance or investigate yourself and then call for assistance.

When things don't go right:

Most problems that owners or veterinarians need to assist with occur during stage 2. Always be clean and gentle when performing any type of

Friendly Reminder



If you are unable to be present for an appointment for your horse, we will look to the barn managers to communicate your requests, etc. Please be clear with the barn managers as to what you do or do not want done.



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obstetrical procedure. For most of the common obstetrical manipulations,



repositioning a lamb or kid is necessary before delivery can proceed as planned. One rule you should remember is that if a head and legs can become engaged in the pelvis of the mother at the same time, then delivery should be able to occur vaginally. In cases when this is not possible, it may be necessary to consider the option of a caesarian surgery. In some of the smaller breeds of goats we see commonly in this part of Vermont, it can be especially difficult to manipulate limbs or a head because the animal is so small it is not possible to safely pass the hand into the uterus. In these cases, the safest thing for the mother, lambs, or kids is surgery.

If a mother begins the initial stages of labor, and then stops having contractions or if contractions are happening with no progress for 30 minutes, then you should call for advice or assistance. There are situations of birthing problems complicated by issues involving twisting of the uterus.

In these cases, normal delivery cannot occur until the uterus is untwisted. Sometimes the cervix will not dilate properly and stage 1 of labor begins, but then nothing happens because the lambs or kids cannot enter the birth canal to initiate active contractions by the mother.



If a ewe or doe has a normal delivery but the placenta does not pass in a timely manner, it can make the mother sick. In these cases, we need to start medical treatments with antibiotics and anti-inflammatory medications, in addition to medications to help initiate contractions. Many of these cases can be managed by an owner themselves with medications on hand, but it is always good to call for guidance and advice.

The bottom line:

Many problems that we see could have a better outcome if intervention or advice happened sooner.

Always call for help if you are not sure if something is happening correctly. Don't wait! We would much rather get a call in the middle of the night to a

healthy lambing or kidding rather than two hours later when the situation is dire, the ewe or doe is compromised, or the lambs and kids are dead. In any dystocia, the lambs or kids are going to be compromised compared to a normal birth. Just because you call your vet does not mean for sure that they need to come out. If you are comfortable performing a vaginal examination of the mother, then this is very helpful for us when you call because you will have more information for us. However, if you are not, no worries. We are always available for help!

Referral Rewards!



When you refer a new client to LAMA, a credit will be applied to your account! A \$50 credit for the first referral and a \$25 credit for any additional referral. Just have the new client let us know you referred them and the credit will be applied following the first appointment with the new client. It's our way of saying **THANK YOU!**