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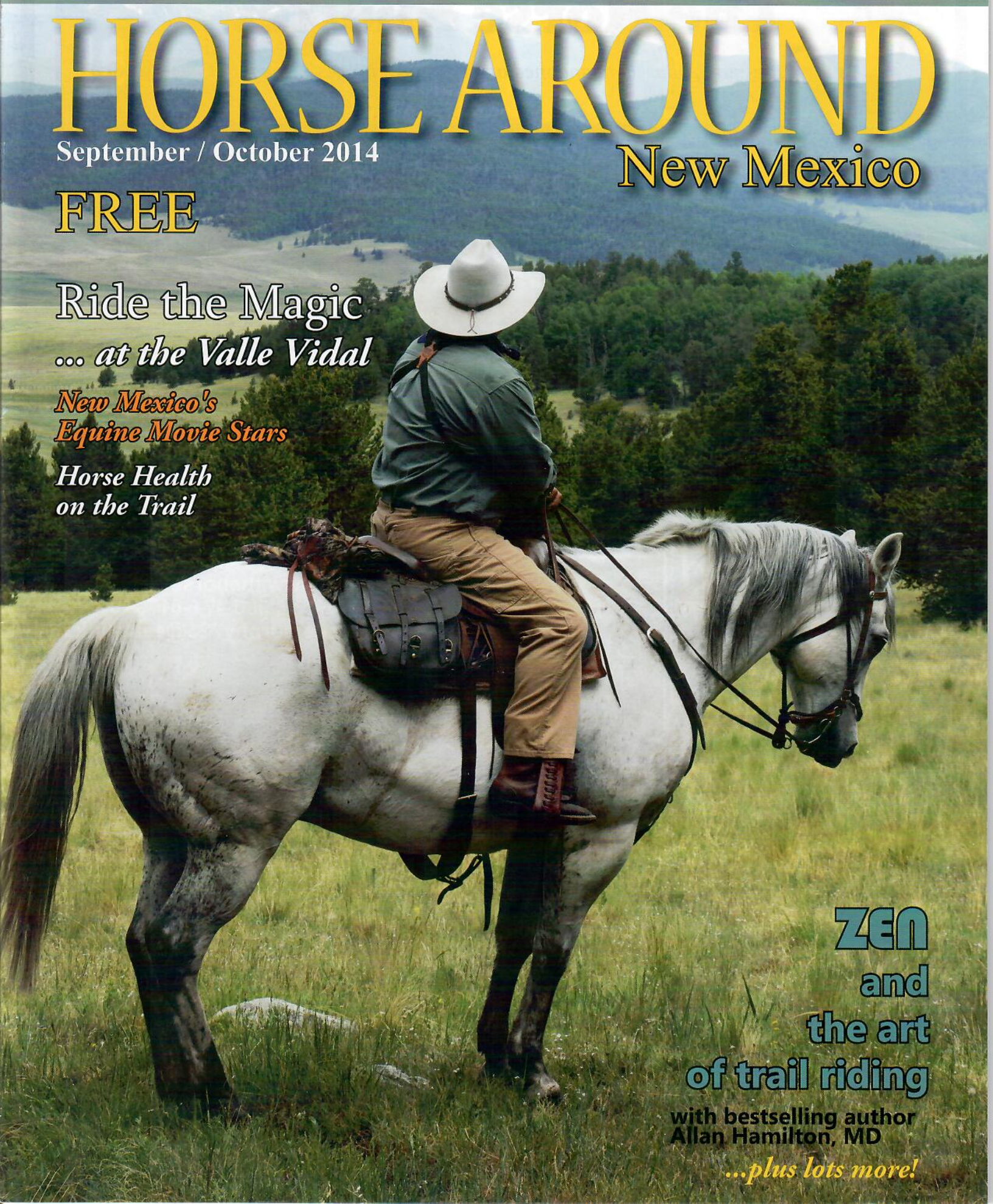

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Ailments on the Trail

by Stacie G. Boswell, DVM

Even horses whose primary job is to show often benefit from trail riding. For the rider, a group ride may be relaxing and social, rather than competitively stressful. A smaller group may be where you find peace, solace, and spirituality. But, if your horse experiences an illness or ailment while on the trail, it can disrupt your harmony and, because of the limited resources available, be even more stressful than if you were at home.

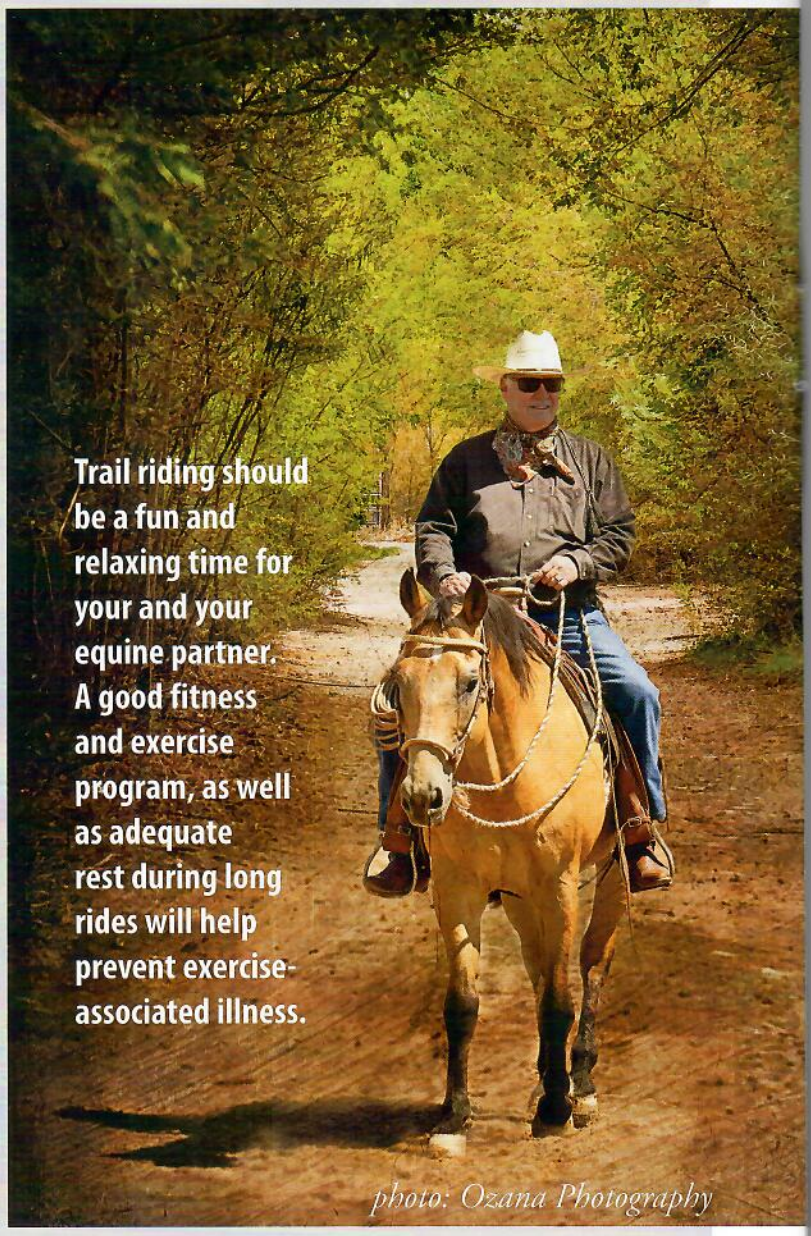
This article will address some of the contributing factors, signs, and medical treatments of common medical ailments that are associated with trail riding. These include colic, metabolic problems, and lameness.

Colic

The first, and most common, problem that occurs in trail and endurance horses is colic. (*Fielding CL, and Dechant JE. (2012) Colic in competing endurance horses presenting to referral centres: 36 cases. Equine Vet. J. 44:472-5.*) Colic is a general term for abdominal pain, and there are a multitude of specific disease processes that result in colic. The most common type of colic in trail horses is impaction. Typically, colic pain will not manifest itself while riding, but will be observed 12 to 24 hours after coming off the trail. Horses may shift from standing to lying down, rolling, kicking at their bellies, watching or looking at their flank, stretching out, or just looking depressed. Your horse may also have a decreased appetite. Signs will vary depending on the individual horse and the severity of the problem causing the colic.

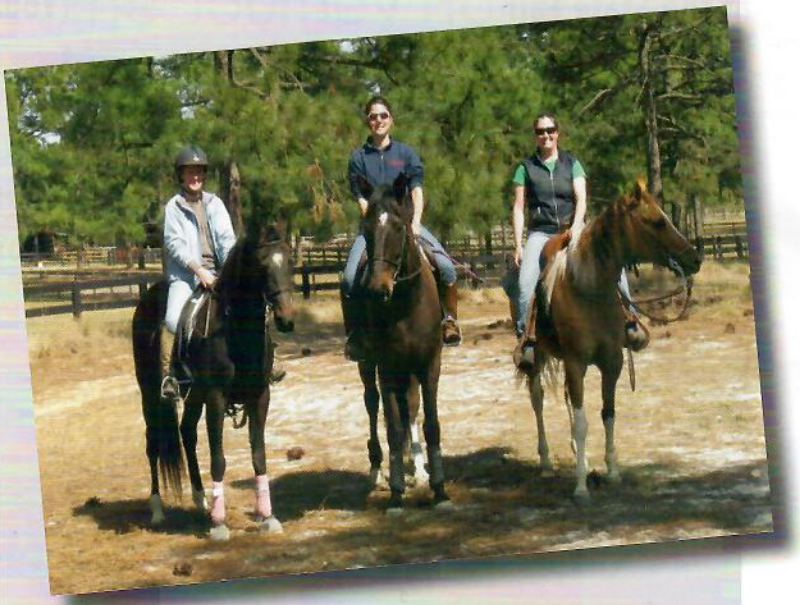
How does this happen?

The key factors that can contribute to colic in trail horses include dehydration, change in feed, electrolyte deficiencies or imbalances, and changes in the horse's exercise routine. Blood flow to the gastrointestinal tract may be compromised as the horse uses its available reserves for support of the large muscle groups. This is a well-documented phenomenon in marathon runners or other human athletes. (*Sanchez LD, Corwell B, Berkoff D (2006) Medical problems of marathon runners. Am J Emerg Med. 24:608-15.*)



Trail riding should be a fun and relaxing time for your and your equine partner. A good fitness and exercise program, as well as adequate rest during long rides will help prevent exercise-associated illness.

photo: Ozana Photography



The author (on the right) and friends on a trail ride in North Carolina. photo: Stacie Boswell

An impaction occurs when the material in the horse's gastrointestinal tract moves more slowly than usual leading to a "backup "of ingesta. Impactions frequently occur in the pelvic flexure of the large colon, but may also occur in the stomach, in the ileum (a portion of the small intestine), or in the small colon. (See Fig. 1)

Gastrointestinal normal motility may be slow if the horse becomes moderately dehydrated, and the body tries to restore a normal blood volume by extracting more water from the gastrointestinal contents. This results in thicker, dryer ingesta, which is more difficult to move through. Electrolytes are also very important to the normal muscle contraction that is responsible for gut motility. The two most important electrolytes for the contractility are calcium and potassium. The horse will lose these electrolytes and others (sodium, chloride, and magnesium) through sweat. (*Foss MA, and Wecker SJ. Veterinary Aspects of Endurance Riding. Chapter 52 in Equine Sports Medicine and Surgery.*) Finally, the horse may experience changes in motility related to changes in exercise or feed.

What can we do to prevent this?

I cannot overemphasize the importance of keeping your horse hydrated. Every time your horse has an opportunity to drink, you should take the time to offer, encourage, and reward him for drinking. Water should never be withheld on the trail. Even a warm horse should have access to water to replenish fluids he is losing through sweat. Horses that are hesitant to drink from streams or nervous about drinking while wearing a bridle and saddle need particular patience and reward. The challenging part of trail riding in the desert is that you may not encounter any water on your ride. Make sure you offer buckets at the trailer before setting out, and immediately after returning. It may help to bring familiar water from home, or to use a similar flavoring (Kool-Aid or Gatorade) at home and at the trailer.

Know your horse. Is he a horse that drinks well? Is he hesitant or nervous? Has he experienced an impaction colic before? Does he show pain, or is he stoic? Does he normally roll once or twice after being ridden to scratch all the itchy places? Now that you are done riding is he tired, or is he dull and painful?

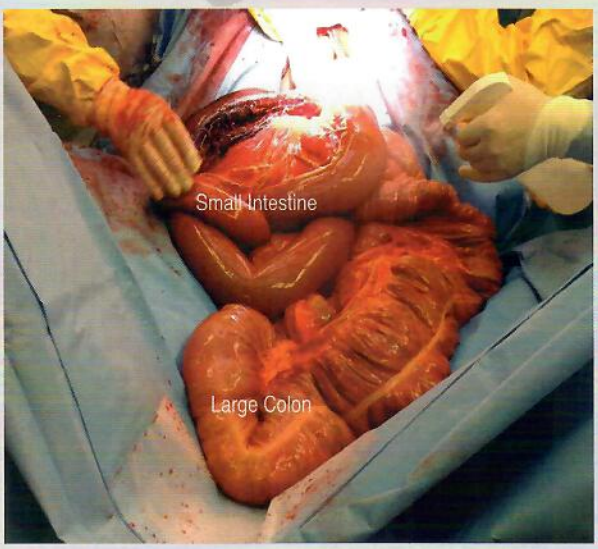


Figure 1: An intra-operative view of a horse having colic surgery. The large colon and small intestine are visible.

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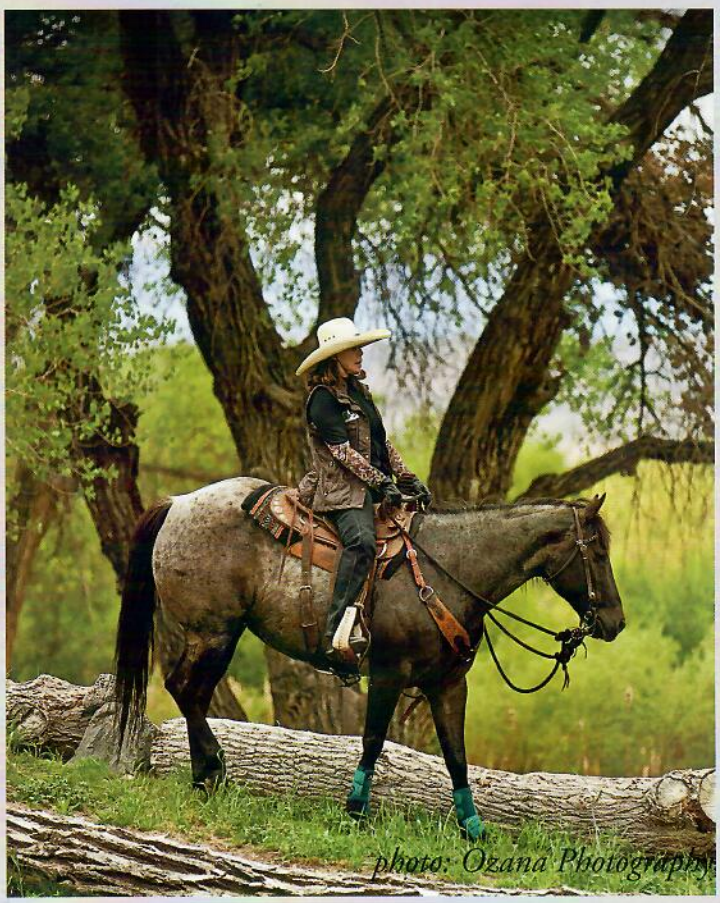

Avoid a feeding change. If you overnight, your horse may be eating hay cubes or a complete, pelleted feed since roughage is often too bulky to pack in. Don't change suddenly – offer this replacement roughage at home as a portion of his meals for several days before your trip. When possible, offer moist replacement roughage. This may mean a soaked feed, or (if you are lucky, and it is allowed) grazing on fresh grass.

Access to electrolytes is important. If you are overnighting at the trailer, at a minimum a salt block should be provided. Loose salt/electrolytes are better, and an electrolyte paste may be necessary for some horses. If your horse has had problems in the past, you may consider adding some flax seed or other oil to his ration to help keep things moving smoothly.

Metabolic Disturbances

Historically, there are two major exercise- or fatigue-oriented metabolic diseases. The first of these is called the "thumps" or synchronous diaphragmatic flutter; the other is tying up, which is also known as "Monday morning disease" or exertional rhabdomyolysis (ER). Both may be exacerbated by dehydration, electrolyte imbalances, and over-heating.

Synchronous diaphragmatic flutter

What you will see when a horse has this problem is contraction of the flank musculature and the diaphragm (like a hiccup) each time the horse's heart contracts. This is why historically this problem is caused the "thumps". The reason the contractions happen is that the large phrenic nerve that innervates the diaphragm is near the heart, and becomes hypersensitive as a result of electrolyte abnormalities. The early nerve conduction results in abnormal muscle contraction. If your veterinarian does blood work, it typically shows low levels of potassium, calcium, and/or chloride. Treatment consists of replacing the lost fluids and electrolytes and a period of rest. The signs the horse is showing (the abnormal muscular contraction) may seem to go away on their own, even though the horse still has electrolyte abnormalities. Any horse that has had the thumps should see a veterinarian as soon as possible after the signs are noted.

Exertional rhabdomyolysis

If your equine partner shows early signs of ER, he may have abnormal behavior, anxiety, be reluctant to move, or have a shortened stride. Later, swollen muscles (especially in the hind end) may be apparent, or the horse may seem exhausted in addition to being reluctant to move. Muscle enzymes (creatine kinase, or CK and aspartate aminotransferase, or AST) will be elevated, and your veterinarian will do blood work to assist in the diagnosis, and monitor the progression of the problem. The byproducts of muscle breakdown are extremely toxic to the horse's kidneys, which may result in renal failure.

Treatment of ER includes administration of fluids, control of pain and inflammation, and sedation as needed. Non-steroidal anti-inflammatory medications (such as phenylbutazone, or "bute", and flunixin meglumine, or Banamine) should only be used with extreme caution as these drugs are cleared from the body by the kidneys; therefore, they can cause further renal damage. Hot packing and massage may accelerate the recovery period, and will also help the horse feel better!

What can we do to prevent these problems?

In addition to maintaining adequate hydration, you can keep your horse fit. "Weekend warriors" should be monitored closely for their fatigue levels. Take breaks when on the trail, and make sure your horse is as fit as you can keep him. At an absolute minimum, horses need exercise during the week. Good paddock turnout and ridden exercise 2-3 times during the week will help ensure your weekend trail ride will be fun for both of you. Otherwise, that 15-mile ride may leave your horse exhausted, and you sore.

Prevention of the thumps can be achieved with a healthy balance of electrolytes, especially maintaining adequate levels of calcium. Horses will absorb electrolytes from their diet, and from a mineral block or loose minerals. Even on a short overnight camping trip, your horse should be provided access to minerals. Most horses in this area have alfalfa as the mainstay of their diet, and because of its high calcium content, it will help prevent this problem from occurring. Finally, you may administer an electrolyte paste that contains calcium, especially if your horse has ever developed the thumps.

Exertional rhabdomyolysis may be associated with long-distance trailering. Always take breaks and check your horses regularly when shipping. In some individuals, ER may also be associated with higher-starch feeds. If a horse has an episode of tying-up, a high-fat, low-starch feed may be indicated on a long-term basis.

Summary

Trail riding should be a fun and relaxing time for your and your equine partner. A good fitness and exercise program, as well as adequate rest during long rides will help prevent exercise-associated illness. Adequate access to water, forage, and minerals also helps ensure that metabolic disturbances do not occur. Horses that are willing to drink on the trail should be allowed and encouraged to do so. Finally, early recognition and veterinary evaluation of these problems is important for ensuring treatment success.

Dr. Boswell is an equine veterinarian at Western Trails Veterinary Hospital in Edgewood, New Mexico. She has extensive trail riding and camping experience in various states in the west, and throughout the Appalachian Mountains.