

## **Colic and Endurance**

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Metabolic problems are the ride veterinarian's worst nightmare and many can become life threatening in a short period of time, requiring a lot of the vet's attention for hours on end. Knowing what is going on inside your horse can sometimes mean the difference between life or death. Identification of these causes is difficult even in a well equipped equine hospital, much less a cold windy vet check 50 miles from civilization. So don't be surprised if the veterinarian moans when you tell him/her that you think your horse has a metabolic problem.

What does it mean when a horse has a metabolic problem? Usually veterinarians use this term when talking about several conditions, colic, exhausted horse syndrome, ty-up and thumps. Let's look at these conditions and see why they cause endurance vets to get old and gray.

First, let's discuss colic. Colic is one of a veterinarian's worst nightmares. Colic is a complicated, deceptive disease process. Many different causes result in the same observable sign, pain. The endurance horse at a ride often, but not always, presents the veterinarian with an unusual form of colic. Metabolic colics are the most common colics seen at rides, but are extremely rare outside of rides. A metabolic colic is a colic where the intestines simply quit working. If the intestines quit moving, the fluid and gas formed from digesting food will blow up the intestines like a balloon and cause pain. Metabolic colics are brought on by a combination of factors, dehydration, electrolyte loss and energy depletion. Veterinarians and riders can recognize a horse with colic because it is pawing or trying to lie down. Really observant rides will notice that the horse has stopped eating or has a facial expression we call a "snerl" (wrinkled nostril and lips). If the horse could talk it would probably say, "I would love to toss my carrots!"

By the time a rider can recognize that their horse has colic its digestive tract probably has lost the ability to absorb water and therefore the horse cannot recover on its own. Treatment of this kind of colic usually requires a prompt replacement of lost fluids, electrolytes and energy stores. Expect your veterinarian to suggest IV Fluids. IV fluids are the VERY BEST and sometimes the only effective treatment. These horses may need pain control. Sometimes these horses will develop gastric reflux, a very serious problem. Horses sometimes need referral to an equine hospital because of poor response to treatment, unfavorable conditions at the ride or the

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possibility of a surgical condition. With colics, no one can be sure of what will happen. I have diagnosed horses at rides with twisted intestines requiring surgery.

Exhausted horse syndrome is another metabolic headache. This horse is not just tired, it is dehydrated, electrolyte depleted and has used up all its energy. Its gas tank is empty! Many times this horse is an early metabolic colic, it is just not painful yet. This horse comes in with a slow recovery, poor appetite and a depressed attitude. It is sometimes hard to pin down this diagnosis. The rider is convinced the horse is simply a little tired and will be fine and the vet has a bad feeling in their stomach, but has no definite criteria to confirm this condition.

Exhaustion does have many degrees. The slightly exhausted horse may just need a 2 hour hold to rest and eat then can resume the ride at a much slower pace. The severely exhausted horse will end up as a metabolic colic. Sadly, our crystal balls do not let us know which condition the horse has at the time! Making the wrong decision can result in a very sick horse. To treat an exhausted horse we need to replace the fluids, electrolytes and energy the horse has lost. A mild case of exhaustion may only need a chance to eat and drink to recover. On the other hand if the horse does not have a working intestinal system, in other words does not have any gut sounds, then the vet needs to give IV fluids. Even if a horse does have working intestines, IV fluids will dramatically speed up recovery. Delaying treatment usually only makes the condition.

Thumps, also known as Synchronous Diaphragmatic Flutter, is a condition we all can identify. Thumps, a condition where the diaphragm contracts with each heart beat resulting in a contraction in the flank. Thumps results from an electrolyte imbalance. Specifically the horse is low on calcium, potassium and chloride as well as being alkalotic (acid base balance is way off!). Sometimes a horse with thumps will not seem distressed, lulling riders into a false sense of security. (Draft horse thumps can be bad enough that you can feel the room shake!)

I have always regarded thumps as a big flashing yellow light saying "Stop now or face the wrath of Khan!" Recent scientific publications have revealed that horses with thumps suffer from significant damage at the cellular level. It turns out that low calcium inside a cell starts a variety of damaging free radical reactions that require many weeks for recovery. In an early-uncomplicated case of thumps treatment may be simple. If your horse is still eating and happy some calcium containing electrolytes may take care of the problem. In a more complicated case, calcium is often given intravenously alone with IV fluids. Many exhausted or colicky horses will also have thumps so calcium is included in their treatments.

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Ty-up is a different problem. This equine condition usually presents itself early in the ride. Even as early as the first couple of miles! Your first sign is usually a horse that will not trot. The horse is mistakenly thought to be acting up when in reality it hurts to trot so they are trying to canter for comfort. The easy to recognize ty-ups are the ones where you actually notice a lameness or stiffness in the hind legs or you feel the rock hard swollen muscles. Finally some horses never let you know anything is wrong until they urinate and the urine looks like espresso!

Explaining ty-up is beyond this article. Treatment at a ride usually involves IV fluids to prevent damage of the kidneys by the myoglobin (muscle protein) released from damaged muscles. I usually tell riders that I want to run IV fluids until the horses urine turns from espresso to Coors Light! (I do not get any money from the Coors Co for these advertisements!) Additional treatments are aimed at reducing pain and increasing blood flow through the affected muscles. Metabolic problems make up a small percentage of problems at rides, but they often make the most vivid memories. Equine metabolic problems are life threatening and require immediate and aggressive (i.e. expensive) treatments. It is essential that you let your ride vets know if you think there is a problem with your horse. The sooner these issues are recognized the easier (i.e. less expensive) and more effective the treatments. Remember, the vets at the rides are usually great vets, but they cannot fix all the equine problems riders present. Preventing and fixing equine metabolic problems begins with you, the rider.