



# Back Soreness

Sometimes difficult to diagnose and treat, this type of pain may stem from a variety of sources.

By Michael Ball, DVM



Arnd Bronkhorst

*The structures of the horse's back and neck are extremely complicated.*

**B**ack soreness can be one of the most difficult and elusive diagnostic challenges in the horse. There are direct (primary) back problems such as direct trauma from a poor fitting saddle or even arthritis and, much more commonly, indirect (secondary) back problems. From a musculoskeletal standpoint, the back and neck are extremely complicated. There are hundreds of individual ligaments and numerous muscles and their tendon attachments holding together all of the vertebrae and pelvic structures that compose the back. Every vertebra actually has four true “joint” articulations with cartilage, joint fluid and surrounding soft tissue structures just like the fetlock, a more typical joint. There are 14 small “joints” in the neck alone. Although much less common than in a limb joint, the joints of the vertebrae can suffer from arthritis caused by trauma, injury, wear & tear, and even congenital problems such as OCD. The tissues of the back can be traumatized while rolling, bucking, rearing, playing, having a leg lose footing and slipping out, pulling back on a tie, as well as during the rigors of riding. A horse's saddle and padding can be a contributing factor in some cases.

## Symptoms

The signs of back pain can be extremely variable from horse to horse,

with the main sign primarily being poor performance. Subtle signs can be noticed—including tail swishing, a directional difference in the way the horse rides (difficulty bending in one direction or with collection), difficulty with leads, ear pinning, head shaking, flatness when jumping, or stopping all together. There is sometimes a difference in the horse's movement depending on whether he is being ridden—or ridden under saddle as opposed to bareback. These signs, of course, may have many other causes including behavioral, training issues, or even natural performance limitations, so it is very important to have a complete veterinary examination performed to know what course of action to take and decide if there is a medical condition that needs to be addressed before more intense or alternative training.

## Diagnosis

Diagnosis of back pain can be very difficult and starts with extremely thorough observation. Seeing what the horse's body can do without forced manipulation can be helpful. It is great to see a horse with his back curved around balancing on three legs while scratching that spot behind his ear with a hind foot! The horse that will nibble a carrot over his withers to the right but not to the left can be an indication of pain on one side of the neck (could be

stretching of inflamed tissue on one side or compression of inflamed tissue on the other side). Palpation of all of the long muscles of the back and muscles of the rump while watching and feeling for a reaction is important. The lumbosacral area, pelvis and sacroiliac areas often can be manipulated in order to determine degree of movement and reaction. This really is the surface of the iceberg, because there are so many deep structures and such large masses of muscle covering them it is very possible to be over a problem area and get little to no reaction. After palpation local anesthesia can be administered to confirm an area of suspected pain. In addition, nuclear scans (scintigraphy) and thermography can be used to isolate problem (inflamed) areas followed by ultrasoundography and radiology to further define the problem and help decide on a course of treatment.

## Saddle Fit

The saddle fit should be evaluated as well as the saddle structure for problems including a broken tree or bunching of padding material causing a pressure point. A correctly fitting saddle needs to fit the horse as well as allow the rider to sit balanced and centered on the horse. The saddle should not interfere with the horse's movement or the rider's aids; with a well-fitting saddle the rider

will feel secure and balanced with his legs staying in the correct position without constant adjustment.

The padding needs to be evaluated as well as the saddle. Some padding can cause pressure points to trigger a response in the muscles under it. In many cases more is not necessarily better—padding cannot make up for a poor-fitting saddle. The newer neoprene and gel-type pads have been very beneficial in a number of cases I have worked on.

### Evaluating Lameness

It is also very important to conduct a thorough lameness evaluation, as many back problems are actually secondary to lameness issues. If lameness issues related to back pain are not addressed, treatments focused on the back are likely to be short lived and unsuccessful in the long run. Various treatments including locally injected and systemic anti-inflammatory medication, muscle relaxants, correction of poor saddle fit or padding problems, stretching exercises pre- and post-exercise, massage therapy, chiropractic and acupuncture, can all be effective in treating various types of back pain. The treatment(s) must be undertaken considering whether the pain is primary or secondary, acute or chronic, soft tissue, bone/joint (or both), and be based on a sound localization and diagnosis of the cause of the pain. Back pain can be perplexing and frustrating to diagnose and treat. It may take some time to completely figure out, but should be considered when dealing with training issues and/or poor performance.

*Dr. Michael Ball and his wife, Dr. Christina Cable, operate the private practice Early Winter Equine Medicine & Surgery in Ithaca, NY. He is also an FEI veterinarian and has traveled extensively as a team vet with the USET.*