

Back Pain

On a daily basis in our practice, horses are presented to us with complaint of back pain related to intensified workload. The primary clinical symptoms noted by owners, riders and trainers include: bucking, kicking out under saddle, resistance to move forward, and loss of topline musculature. Back pain can lead to the onset of performance issues, but luckily there are a number of veterinary options available to address back soreness with long term benefits. At Virginia Equine Imaging, we assess your horse's back by through palpation and visual inspection at rest and in motion to help identify the affected regions. We perform a comprehensive evaluation including moving and flexion tests because many athletic horses have a coexistent hindlimb lameness such as lower hock joint or stifle pain in addition to back discomfort. Following the detailed physical examination, specialized imaging modalities such as ultrasonography, digital radiology, nuclear scintigraphy and thermography are often performed to help diagnose and direct management of equine back disorders. Dorsal spinous process impingement or "kissing spines, articular process arthritis and soft tissues injuries are just a few of the back problems commonly treated at our practice.

The treatment for back pain aims to resolve discomfort and muscle soreness and make the horse as flexible as possible, while promoting muscle function and strength. Three of the most effective therapies performed in our clinic for successful management of back pain include extra-corporeal shockwave therapy, mesotherapy, and intraspinal injections of the back with corticosteroids.

Shockwave therapy is an inviting therapeutic option for the sport horse because of its minimally invasive and safe nature. A shockwave is defined as a high energy acoustic wave generated outside the body that travels through fluid and soft tissues and puts mechanical pressure and tension forces on tissues to help stimulate repair. It is an out patient procedure performed with standing sedation only. We typically gauge the horse's initial response to therapy to determine the number of treatments necessary, often 1 to 3 treatments at 3 to 4 week intervals. (PICTURE OF BACK BEING SHOCKWAVED)

A second therapy with positive effects for managing back pain is mesotherapy. Mesotherapy is a technique that consists of intradermal injections in the dermatomes corresponding to sites of pathology of the back diagnosed via specialized imaging. The principle of mesotherapy is based on the theory of control of pain which takes place in the dorsal horn of the spinal cord. According to the theory types I and II nerve fibers coming from the skin have collateral fibers that can stop the conduction of information in the main nerve tracts from transmitting painful information from deeper structures of the same segment of the brain. A multi-injector is used to make continuous lines of intradermal injections resembling a "string of pearls" horizontally along both sides of the back. The horse is sedated and the procedure typically takes 10-15 minutes to complete. Our experience with this treatment is that the positive effects are long lived, especially in combination with extra-corporeal shockwave therapy. The treatment is often performed

at monthly intervals for 1 to 3 treatments depending on the horse's initial response to therapy. (PICTURE OF MESOTHERAPY)

A third innovative therapy known as interspinous injections of the back with corticosteroids helps further ease back pain that impairs athletic ability. Interspinous injections of the back with corticosteroids are often helpful with horses diagnosed with overriding or kissing dorsal spines. The affected sites are localized by ultrasonography or digital radiography, and needles are injected between the affected dorsal spines with medication. The treatment is often repeated whenever significant back soreness reappears, typically one or two treatments yearly. (PICTURE OF BACK INJECTION)

Although back pain and muscle soreness can attribute to decreased performance and altered gaits in your sport horse, there is continual progress in equine sports medicine and its successful management of back pain. By working closely with your veterinarian and establishing a clear diagnosis of your horse's back pain, more precise and immediate treatment techniques can be applied to help resolve back discomfort and reduce avoidance behavior in your equine athlete.

An expanded version of this article can be found in the next edition of USEA.