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# Equine Back Pain by Dr. Lisa Borzynski

Unfortunately, in both humans and horses, a pain in the back can be a "pain in the neck" to diagnose and treat! Back pain can begin as very subtle changes in the horse's performance or temperament and may not be recognized initially. The sheer mass of the equine musculature can make the diagnosis and treatment of back pain even more difficult.

### **Symptoms**

Most horses with back pain present with vague signs such as diminished performance, attitude changes, and gait alterations. When ridden, the horse may be reluctant to move forward and come "through", resist stretching over the topline, hollow through the back, refuse leads, resist lateral work, toss its head, wring its tail, pin its ears, or buck. In more severe cases, the horse may resent grooming, flinch when saddling, move stiffly, stand with a hunched back, or resist having its legs picked up.



#### <u>Causes</u>

The sources of back pain may be just as subtle and varied. Falls, kicks, overstretching, wear and tear, and other injuries may cause stiffness bruising, nerve damage, or even fractures. Jumping and dressage, in particular, require a great deal of back strength. Have a veterinarian evaluate your horse as soon as possible after injury to minimize inflammation and prevent further damage, especially if there is incoordination (ataxia) or strange

behavior associated with it.

A common cause is a poor fitting saddle. Having an experienced saddle fitter evaluate your saddle may solve the problem. Proper placement, tree width, balance, and stability are important to avoid pinching the muscles, putting pressure on the spine, and concentrating the pressure over too small an area. Bruises, muscle fatigue, strains, or even pinched nerves can result from improper fit. The saddle may also alter the rider's position enough to create undo pressure on a particular area of the horse's back. Even if your saddle was professionally fit, the saddle fit can change over time as it is broken in or, even throughout the year, as your horse's shape and fitness level change.

Back pain is often secondary to other medical problems. A lame or unbalanced horse may alter its movement, which will alter the way the back moves. This can cause back pain that may not even be noticed until the primary lameness is resolved. Have a veterinarian evaluate foot and lameness issues early to avoid prolonged lameness that may lead to back pain.

Conformation can also be a contributing factor. While you cannot change a horse with a weak or long back, proper training can at least help to strengthen the neck, abdominal muscles, top line, and hindquarters to support the back. Some horses will be predisposed to developing "kissing spine" lesions due to impingement of the dorsal spinous processes.



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Oral pain may cause a horse to carry its head and neck higher, which may create back stiffness. A thorough oral exam and regular teeth floating should help prevent this. Some mares may experience ovarian pain during their estrus cycle that may manifest as back pain.

Another source of your horse's pain may be you! Not just because you are making him work, but your riding style, your technique, and possibly your size may be creating strain or pressure on the back. Have an experienced trainer evaluate you to see if you might be causing the problem. The solution may be as simple as a change in position.

## Diagnosis

Evaluation of back pain can be difficult. Initially, a basic physical exam and oral exam can help rule out other primary medical issues. A routine lameness must be performed to evaluate the horse's way of going and rule out primary lameness issues. Evaluation and palpation of the entire neck, back, and sacroiliac region is performed to assess pain, swelling, tightness, and asymmetry. Rectal exam may be helpful to evaluate the pelvis, reproductive tract, iliopsoas muscle, and blood flow to the hind limbs. Depending on the practitioner's comfort level, the saddle fit will be addressed.

X-rays may be performed to evaluate for kissing spines, osteophytes, and fractures. Ultrasound evaluation is very useful for evaluating the articular facets, muscles and ligaments of the neck, back, and lumbar region. The sacroiliac region can, in most cases, be evaluated quite thoroughly by ultrasound. Occasionally, referral for nuclear scintigraphy (bone scan) or thermography may be necessary.



The list of diagnoses may include:

- •Severe muscle pain
- "Pinched" nerves-nerve inflammation
- Sacroiliac joint pain
- •Sacroiliac desmitis inflammation of the sacroiliac ligaments
- •Overriding spinous processes ("kissing spines")-bone on bone rubbing between the spinous processes
- •Osteoarthritis of the facets-arthritis between the vertabrae
- Discospondylosis calcification of the ventral longitudinal ligament
- Supraspinous desmitis inflammation of the supraspinous ligaments
- Fractures



#### **Therapies**

Treatment of back pain has come a long way in recent years. Depending on the diagnosis, some sources of back pain can resolve completely and others may require life-long maintenance. Some of the therapies utilized for back pain include:

Veterinary Spinal Manipulation Therapy (VSMT) or chiropractic adjustment helps to "re-align"



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the spinal column to relieve subtle impingements on the nerves and improve the circulation and flow of energy.

- •Extracorporeal Shockwave Therapy (ESWT) involves pulse waves that are emitted from a transducer to improve blood flow to a region and stimulate healing. This is especially useful in cases of "kissing spine" lesions, sacroiliac pain, and muscle pain.
- •Injections of anti-inflammatories into the sacroiliac, paravertebral, or intervertebral spaces for sacroiliac disease, osteoarthritis, deep muscle pain, and kissing spines
- •Acupuncture is used to relieve pain and muscle spasms, and to increase nerve regeneration and circulation
- •Mesotherapy has some similarities to acupuncture-a series of microinjections are made along the back to relieve muscle pain and inflammation. It is especially useful for muscle pain and kissing spines
- •Methocarbamol (Robaxin) is a muscle relaxant for muscle spasms
- •Tildren is a new drug which helps to reduce bone resorption and may be helpful in cases of back pain associated with bony lesions
- •Equine physiotherapy is an area of ongoing research, however most of the work is being adapted from human therapies. Various forms of muscle massage, body work, stretching, isometrics, laser, TENS, therapeutic ultrasound, and specific exercises may all be helpful for treatment of back pain from primary and secondary sources, as well as prevention of future injury.

Back pain can be a frustrating to diagnosis and treat, however, tremendous progress has been made in this area in recent years and there is hope! Contact us for more information.