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FACT SHEET

Department of Animal Science, University of Connecticut

Effective Horse Management - First in the Horse Health Series

Preventing Back Pain in Horses

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Back pain is a source of poor performance and many different types of horses suffer from back problems. Early recognition of back pain is important, since damage may be cumulative. This information is provided to help horse owners and riders prevent, recognize, and pursue treatment for back pain in their horses.

Causes of Back Pain

- *Improperly fitting tack* - A saddle that is too narrow will feel uncomfortable to the horse, pinching its withers and back. A saddle that is too wide places the weight of the rider directly on the backbone rather than properly distributing the weight. Saddle pads can help provide protection for this problem, but should not be considered an alternative to properly fitting tack.
- *A rider who sits unevenly in the saddle* - This may cause the least serious type of back pain, resulting in bruising of the muscle and skin. It concentrates excess weight on one part of the horse's back, squeezing capillaries, decreasing circulation to the area, and causing muscles to become painfully inflamed. If the problem is chronic, the muscle and skin can be injured permanently. A patch of white hair or a bald spot due to damaged hair follicles is the most common

- evidence of this type of back pain. Learning to ride by taking lessons with a qualified instructor may help prevent this type of back pain from developing.
- *Fatigue, poor condition, an accident (such as slipping in mud), or poorly executed jumping can cause excessive strain to the longissimus dorsi muscles* - These muscles extend and flex the spine. This pain is similar to what we feel between our shoulders or in the small of our back when we overexert ourselves.
 - *Straining of the horse's supraspinous ligament* – This muscle running along the middle of the horse's back, can be strained when galloping and jumping but will take longer to heal than a muscle injury. Once strained, this may cause the horse to be prone to this type of injury.
 - *"Kissing spines," or impingement of the dorsal spinous processes, occur due to repetitive undulations in jumping horses* – Basculing, or rounding over a vertical fence, overextending upon landing or stretching out and hollowing the back over a wide oxer can cause this problem. The result is that the individual spinous projections are pushed together tightly. This generally occurs from the end of the withers to the beginning of the loin (10th -18th thoracic vertebrae).
 - *Back pain may develop secondary to chronic leg lameness* - Hind and forelimbs may both be affected by problems such as bone spavin, resulting in complex multiple limb lameness. Secondary back pain may result from abnormal posture and use of the thoracolumbar soft tissues when the horse attempts to compensate for the lameness.

Clinical Signs and Diagnosis

Some common behaviors that indicate back pain are listed below:

- bucking during upward transitions, especially to the canter/lope from the trot - The push and lift required for a smooth transition may be too hard for a strained back, especially if the rider is sitting a bit heavier.
- refusing to stand during mounting - When a once mannerly horse abruptly begins walking off or sidestepping when mounted, this may be a sign of back pain. The horse will most likely resent tightening of the girth as well. A mounting block may help, but won't cure the back pain.
- sinking when a rider mounts, a saddle is placed on the back, or the girth is tightened
- jumping mistakes or refusals - Jumping, particularly over fences 3 feet or higher, necessitates rounding of the back and thrusting from the hindquarters which can increase back pain.
- difficulty in negotiating hills - A horse must engage its hind end and use its back muscles to climb or descend hills, so a horse with a sore back might not want to climb or descend hills, will slow down considerably or take the hill sideways to decrease stress.

- reluctant sliding stops - The extreme rounding of the back required for sliding stops might be intolerable for a horse with back pain.
- lack of impulsion and suppleness in the dressage ring - In the dressage ring, a horse with back pain will most likely show decreased performance due to lack of impulsion and suppleness because this requires hind end engagement and rounding.
- a poor general gait, stiffness and abnormal movement of the pelvis and back. The horse may have a shorter stride and lower foot flight arc in the hindlegs, decreased flexion at the hock and stifle, a “bunny hopping” gait or a very stiff, flat-backed gait where the whole back and pelvis are very flat and rigid due to overflexion or extension of the sacroiliac (back/pelvis) or lumbosacral (back) area.
- reluctance to trot or canter
- reluctance to pick up and maintain one lead of the canter
- changing jumping style
- vigorous tail movements
- grinding teeth
- dragging one or more hind feet
- reluctance to back

If your horse consistently shows one or more of these pain indicators, you should schedule a visit with your veterinarian.

Treatment

First, it must be determined if lameness or another physical problem is the cause of the back pain. If that is the case, the underlying condition must be treated in order to alleviate the back pain. The veterinarian will also attempt to determine if the pain is caused by a soft tissue or bony lesion. Surgical treatment may be attempted in the case of kissing spines and some fractures. The veterinarian may recommend simple stall rest and physiotherapy for the horse. Chronic soft tissue injuries have a guarded prognosis in general, but rest, controlled exercise and appropriate physiotherapy may be successful. Seventy-five percent (75%) of horses treated with acupuncture were able to perform at an acceptable level after five to eight treatments (Xie et al. 1996). This study's investigators recommended that horses needing acupuncture receive treatment for 8 weeks, stay in

their normal training regime, and be exercised on the day of treatment. The veterinarian may also suggest other alternative therapies such as chiropractic adjustment. The appropriate treatment for back pain will depend on the cause of the back pain, severity of the injury and the veterinarian's recommendations for treatment.

Prevention

There are several things that you can do to prevent your horse from developing a sore back:

- ♠ Keep your horse in proper condition – an unfit, poorly muscled horse is more likely to injure his soft tissue and less able to work under saddle
- ♠ Be sure that your saddle fits properly and is not too wide or too narrow
- ♠ Sit balanced in the saddle to prevent back problems from developing by taking riding lessons from a qualified instructor

Back pain does not have to be a career-ending injury. Early detection can lead to complete recovery. Preventing back pain should be the goal of all riders and horse owners. If you would like further information on this topic, please consult the sources listed below.

Sources:

1. Karen Kopp Du Teil. July 1992. Back Pain. *Equus* 177:54-57.
2. When a back sways. Dec. 1991. *Equus* 170 :43-44.
3. Cauvin E. Sept. 1998. Assessment of back pain in horses. *In Practice* 19(10): 522-526, 529-530, 533.
4. Xie H, Asquith RL, and Kivipelto J. 1996. A review of the use of acupuncture for treatment of back pain. *Journal of Equine Veterinary Science* 16(7): 285-290.

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