



## Lameness in Focus: The Hock

Nathan Voris, DVM

Any athlete can suffer from joint pain or injury and the horse is no exception. The hock is a common source of lameness in the hind limb of the performance horse. Horses that stop or turn sharply at speed are especially prone to injuries from compression and rotation of the hock joints. While there are many articulations, ligaments and tendons responsible for the structure and function of the equine hock the following three joints are most often associated with lameness.

The tibio-tarsal joint is uppermost and largest of the joints of the hock. This joint acts as a hinge allowing for all of the motion in the hock. Enlargement of the tibio-tarsal joint is referred to as a "bog" or a "boggy hock". Fluid enlargement of the tibio-tarsal joint can occur due to an injury, presence of a developmental bone chip (OCD), arthritis or can be present for reasons of no clinical significance. The tibio-tarsal joint will often remain enlarged after an injury has healed. While not all horses that have a boggy hock have a significant problem, enlargement of the tibio-tarsal joint should be carefully evaluated when examining the soundness of the horse.

The two joints most commonly involved with hock lameness in the performance horse are collectively referred to the lower or distal tarsal joints. The distal intertarsal (DIT) joint and the tarso-metatarsal (TMT) joint are slab joints responsible for load bearing and stabilization, but move very little. Repetitive rotation and compression of these low motion joints can lead to inflammation and pain. Long term overload and inflammation or an acute severe injury (fracture) can lead to permanent, but often manageable, arthritic changes.

Diagnosis of a hock lameness involves a manual examination of the limb and observation of the horse at a trot. Monitoring the horse's gait following flexion of the hind limb (spavin test) can help to localize the source of pain to the hock. Further confirmation of a hock problem can be obtained by "blocking out" the lameness with local anesthetic joint injections. Finally, radiography, ultrasound and nuclear scintigraphy (bone scan) are tools veterinarians may use to further localize the problem, determine the extent of damage and develop treatment options.

Depending on the extent of the problem, treatment options can be as simple as stall rest and anti-inflammatory medications such as "Bute". For inflammation of the hock joints or mild arthritis, your veterinarian may recommend injecting the joints with corticosteroids and hyaluronic acid. A hock injection involves prepping the skin of the hock with an antiseptic, inserting a needle and injecting medication directly into the affected joint. This will locally reduce pain more effectively and for a longer duration than systemic medications. For more severe problems such as bone chips, fractures or chronic arthritis, surgery may be recommended.

Lameness in the hind limb will cause significant performance problems regardless the horse's age, breed or use. By careful evaluation and use of diagnostic techniques and procedures, your veterinarian can recommend a proper treatment that will help your horse painlessly perform to the best of his ability. If you have questions about a lameness issue or any concern regarding the health and well-being of your horse, do not hesitate to call our clinic. A veterinarian will be glad to assist you with all of your equine medicine, lameness, surgery or reproductive needs.