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## PREPURCHASE RADIOGRAPHS

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The purchase of a new horse is an investment. Purchase prices vary greatly from 'free' to \$20,000,000 with the majority being between \$500 and \$50,000. Prior to making such an investment, a prepurchase examination should be performed on all horses to identify potential performance limiting problems, particularly lameness. Lameness is the most common factor that eliminates a horse from consideration for purchase. The basic prepurchase examination includes a complete physical exam and a lameness exam. Even if the horse was free, the first month's board will cost more than a basic pre-purchase exam.

During the examination, the horse should not be lame at any gait (walk, trot, canter) on any surface (blacktop or deep arena) or in any direction (straight, circling left or circling right). Flexion tests of the forelimbs and hind limbs should be negative or at least minimally responsive. Hoof testers should be negative.

If lameness is present the prospective buyer can:

- Eliminate the horse from consideration for purchase.
- Repeat the lameness portion of the exam at a later date to see if the lameness persists. (Determine if caused by a chronic problem such as navicular syndrome or arthritis, or if it is a temporary problem that resolves such as a sole bruise or other minor soft tissue trauma.)
- Proceed with the consent of the buyer, seller and veterinarian to an in depth lameness examination which may include diagnostic nerve or joint blocks, radiographs, or ultrasound examinations to attempt to determine the specific cause of the lameness.

If lameness is not present but flexion tests are positive, the buyer may elect to have radiographs taken of the positive joint(s).

If lameness is not present and the flexion tests are negative, radiographs may still be indicated depending upon the purchase price of the horse.

Reasons to radiograph a horse that does not exhibit lameness during the prepurchase examination include:

- Identification of bone or joint conditions that currently exist that are likely to cause lameness in the future such as navicular bone degeneration, osteochondrosis, or degenerative joint disease (arthritis).
- Identification of bone or joint conditions that currently exist that are not likely to cause lameness in the future such as periosteal new bone at insertion sites of ligaments or healed areas of prior trauma to the surface of the bones.
- Establish a baseline set of radiographs to help protect the resale value of the horse by having radiographs on file to compare to future radiographs.

The joints most commonly radiographed are the front feet, front fetlocks, knees, hind fetlocks, hocks, and stifles. Every horse and every buyer is different and may require a different set of prepurchase radiographs. The buyer and the veterinarian should decide which joints, if any, should be radiographed based upon the horse's age, breed, prior occupation, intended future occupation, and the purchase price. Young horses need to be screened for developmental orthopedic diseases such as osteochondrosis which often will not cause obvious lameness until the horse begins training or heavy use. Older horses should be screened for degenerative joint disease (arthritis). Racing breeds often sustain chip fractures in the knees and front fetlocks. Western performance horses have a higher incidence of arthritis in the pastern joints (ringbone) and hocks (bone spavin). Breeds that require higher action of the feet may be predisposed to degenerative diseases of the front feet, front fetlocks, hocks, and stifles.

These radiographs may be taken at the stable or at the hospital. With portable x-ray machines, even stifle radiographs are possible at the stable except on very large horses. Taking radiographs at the barn eliminates the need to transport the horse to the hospital. The disadvantage is that the films must be taken to the hospital to be developed and a second trip to the farm may be required to repeat views that are under exposed, over exposed, or blurred due to movement. The advantages of transporting the horse to the hospital for radiographs are that films may be developed immediately and repeat films may be taken before returning the horse to the farm.

Once all the views have been developed the veterinarian will read the complete set including retakes prior to making her/his report to the buyer. If your veterinarian has questions or concerns about the significance of the radiographic findings, a second opinion may be requested from another experienced equine veterinarian, a board-certified equine radiologist, or a board-certified equine surgeon. The cost of radiographic consultation depends upon the number of films reviewed. The results of the prepurchase examination and the radiographic report are for the use of the buyer only and can not be released to a third party, including the seller, without the consent of the buyer who had them done.

By the state laws governing the practice of veterinary medicine, the actual radiographs are the property of the veterinarian and must be kept on file as part of the medical record for five years. Copies of the radiographs are inexpensive, but the quality of the copies is not quite as good as the original. The original radiographs may be loaned directly to another veterinarian at the buyer's request but they must be returned to the original veterinarian after they have been reviewed.

While prepurchase examinations and prepurchase radiographs can not guarantee that your new horse will be forever free of lameness, they greatly reduce the risk of buying a horse with a problem. Protect your investment with close veterinary supervision prior to any purchase.