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LAMENESS 'no foot, no horse'.

Lameness is one of the most likely reasons why your horse may require veterinary attention, whether your horse is an elite athlete or a much loved child's pony. Lameness examinations can be daunting and confusing for owners. This information sheet aims to shed some light on the lameness examination and explain the processes involved, in some detail. Horses cannot give us the lowdown 'straight from the horse's mouth' so to speak, so investigating lameness and where the lameness comes from can be a time consuming procedure.

What is a lameness investigation?

Lameness investigations may be carried out for several reasons including:

The owner noticing that their horse is lame

Poor performance, e.g. Difficulty in performing a certain dressage maneuver that used to be relatively easy, or refusing to jump

Swelling on the limbs

Due to accidents/cuts/wounds

The lameness examination aims to identify which leg or legs are involved, if any of the spine and pelvis are involved, what the cause of the lameness is, determine treatment options and thus provide a prognosis.

A lameness examination is composed of:

History taking

Full clinical examination

Observation: walking and trotting in hand and on a variety of surfaces, flexion tests, under saddle assessment

Blood samples may be taken on occasion

Nerve blocks

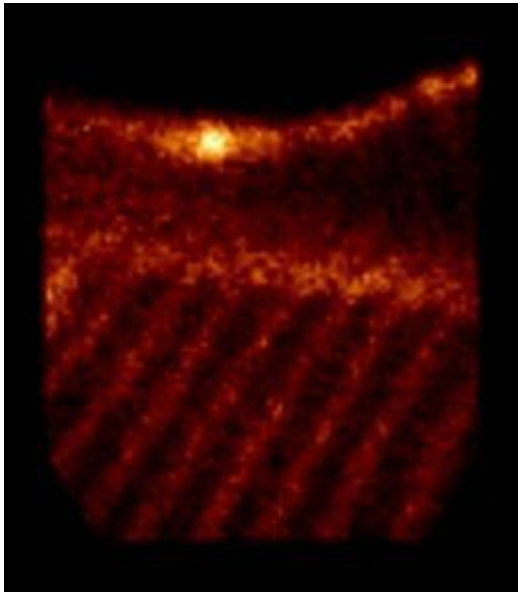
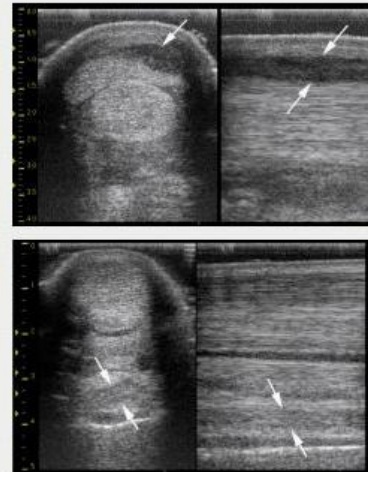
Further diagnostic aids: radiographs, ultrasound, bone scans, MRI, CT (See later information sheets)



Radiographs



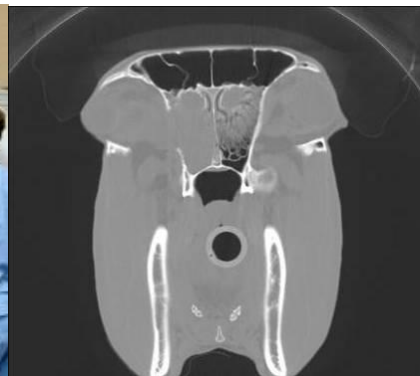
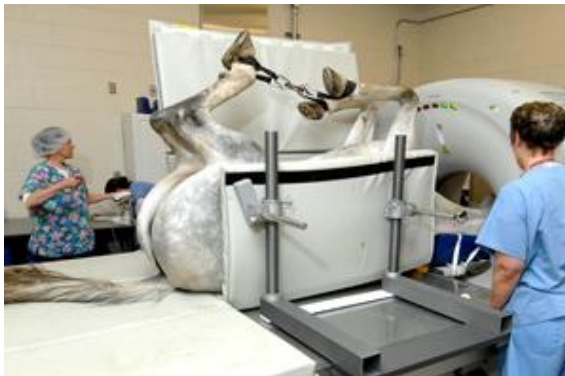
Ultrasound



Scintigraphy/Bone scan



MRI



CT

History

A history should include information about the horse such as sex, age and use. Any past problems or current situations that might have influenced the present lameness should be included. Questions your vet may ask you can include:

Has the problem occurred quickly or over a longer time period?

Was the horse turned out in a field or in the stall when the problem first occurred?

Was the horse in work when the lameness was noted and, if so, what type and level of work was the horse doing?

Simple answers to these questions will be extremely helpful to your vet in determining the cause of lameness and its eventual treatment.

Clinical Examination and Observations

Observation of the natural stance and motion of the lame horse is the next step. Again, any information you can provide to your vet will be very useful.

Your vet will observe the horse at rest from all four sides, either in the stable or outside. This allows scrutiny of the horse's conformation, stance, muscle symmetry and the presence of any 'lumps and bumps'.

Your vet will then observe your horse as it walks, and trots in a **straight line**, in hand. This evaluation is generally done on a hard, flat surface. Such a surface allows the observer to actually see the way that the feet make contact with the ground, and the hoof-beats provide an audible measure of weightbearing. When evaluating a lame horse your vet will look at the way that each leg moves through the air. Your vet will try to answer the following questions:

Is the horse lame

Which leg or legs is the horse lame on

Is the lameness consistent

How lame is the horse, on a scale of 1-10. (10 being the worst, i.e. fully non weight bearing)

The horse should then be observed while moving in a circle, usually on a **lunge line**, in both directions and on several different surfaces if available.

Manipulation

Manipulation of the muscles, ligaments and joints of the body will follow next. Heat, tenderness and any reduction in the normal range of motion of the joints should be checked for, and any abnormalities recorded.

Palpation (physical manipulation which includes pressure on certain critical musculoskeletal areas) should be carried out to identify affected areas.

Flexion tests are important in equine lameness examinations and will be done at this point. In a flexion test the examiner seeks to compare the motion of the horse before and after stress is applied to particular areas.



The fetlocks, knees and hocks are each flexed for 45-60 sec. Only enough pressure is applied to stress but not strain the joint; this is a learned technique that takes practice.

After flexion the horse is jogged off and the evaluator looks for uneven stride length, for lack of propulsion or for a reluctance to land and load a particular joint.

The test is positive if the lameness clearly increases, or negative if it does not.

The horses back, and range of motion of the neck should also be fully evaluated.

Horses travel on four legs which complicates their motion and can make evaluation difficult. Repeat evaluations sometimes on separate days, and with additional opinion, may be necessary to clarify difficult cases. Video documentation of some cases is possible and may be useful.

Will a diagnosis be made?

After the clinical examination a diagnosis may be made or additional diagnostic work may be needed. Occasionally **regional anaesthesia or nerve blocks** will be done. Your vet will clean and prepare the skin

over specific nerves. A local anaesthetic solution will then be injected into the nerve. The region of the body below the nerve that has been injected will be temporarily "numbed" and your horse will not feel pain coming from that region. By comparing the horse's motion before and after the injection, and by knowing the anatomical relationship between surface nerves and related structures, your vet can use this technique to pinpoint a specific lameness problem. Further local anaesthetic techniques include injection into joints or synovial sheaths. These nerve blocks help to pin point where the source of lameness is coming from. Once the horse has 'blocked out' i.e. gone sound to a certain nerve block, this area of the leg can then be concentrated on and examined further. Remember though, nerve blocks are not always clear cut and don't always give black and white answers, but they are an integral part of the puzzle!

Additional information from **radiographs, ultrasound, scintigraphy, MRI** (unfortunately not available in SA for horses) or **CT** may also help in the final diagnosis (see later information sheets).

Conclusion

Lameness evaluation in the horse can be relatively simple or it can be very complex. A complete history and careful observation are the first steps. Manipulation and the application of any number of diagnostic tests will complete the examination and should reveal a description of the problem and allow the clinician to prescribe a treatment and rehabilitation plan that will be specific to your horse.

As you, the owner, are often the best evaluator of the horse's motion and behavior, careful observation and good record keeping will be helpful to a vet attempting to perform a lameness evaluation.

Complex lameness work ups can take time, sometimes even days, with repeat radiographs, ultrasound exams or nerve blocks being required. For these cases it is often beneficial to send the horse into the hospital/clinic so that a full and thorough lameness evaluation can be performed.

If you have any questions regarding lameness, please do not hesitate to contact the practice on 0215523450, or email cape@mcveigh.co.za