

LAMENESS INVESTIGATION

GENERAL INFORMATION

The vets at House & Jackson are commonly called upon to determine the cause of lameness in a horse. Sometimes the examination is simple and the cause of lameness is readily identified. However, some cases require an extensive and complicated examination and therefore can involve more expense. It is extremely important to identify what causes the lameness, because specific treatment will only be possible after a diagnosis has been reached. Some lame horses will only get better after extensive rest periods, whereas other causes of lameness may require an exercise programme to allow soundness. Again, without a diagnosis, the horse may never become sound because the wrong regime is applied.

Often lameness has multiple undefined causes. These complicated cases usually develop over a long period, though they have only recently become apparent. A plan must be developed to rule out the various possible causes, and time allowed for attempts to eliminate or control the lameness.

THE INITIAL EXAMINATION

A lameness examination may involve a number of different considerations:

The horse's history: The more details you can provide about the lameness the more likely we are to diagnose the cause of the lameness. It may help if you write down the sequence and time of events involved in the lameness.

Physical examination: This involves observation of the horse for asymmetry, and palpating and comparing the legs for swelling, heat and pain. Hoof testers may be used to test for pain in the feet.

Jogging and lungeing the horse: Jogging the horse in a straight line and lungeing the animal in a circle allow us to analyse the horse's movements. The ideal surface for examination is a uniformly firm, non-slip area at least 12m. by 12m.. A longer trot up strip is helpful. The area should be free from distractions. Ideally, a softer, level area (such as a riding arena) should be available to compare soundness on firm and soft surfaces.

Riding the horse: Unusually, we require you to ride your horse, using your usual equipment, such as a saddle, bridle, any protective boots for your horse, hard hat etc. Subtle lameness is sometimes accentuated or diminished by riding.

The rider is occasionally a factor of the lameness. The rider's ability, balance with the horse, weight and conditioning can be involved in lameness. Trying a different exercise programme and/or rider for 5 days a week for a month can help evaluate these complex cases.

Tack and training equipment should be available during the examination. Tack is often a contributing factor to lameness or occasionally the entire cause. Bitting, saddle fit and saddle padding must be assessed. Have any protective boots and all harness parts available for inspection, should we need it.

FURTHER INVESTIGATION,THE LAMENESS WORK-UP

Your horse will probably have to come in for further tests if the initial examination cannot determine the cause of lameness, or if initial treatment has failed to bring about the desired response. It may even be necessary to leave your horse with us for one or more days or you may be given an appointment to bring your horse in for assessment. Lameness work-ups can be very time consuming. The horse is ideally shod for this procedure to avoid foot soreness developing during the examination.

Nerve blocks: Local anaesthesia is the foundation of a thorough lameness investigation. By injecting a local anaesthetic around a nerve and relieving the pain causing the lameness, we can identify an area for further examination. Nerve blocks are usually done sequentially, beginning at the lowest portion of the leg and working up the leg. Anaesthetic is injected subcutaneously (under the skin) on one or usually both sides of the foot or leg. After waiting 5-20 minutes to allow the anaesthetic to take effect, the horse is jogged to see if the nerve block has reduced or eliminated the lameness.

Local anaesthesia is a relatively harmless procedure, but in rare cases a reaction can occur. To minimise potential discomfort and swelling after a nerve block, apply a stable bandage to the leg after the evaluation.

Joint blocks: In some cases the examination may require joint blocks, which are more complex than a nerve block. This requires sterile injection of the anaesthetic into a joint for evaluation.

Radiographs (X-rays): After an area has been identified as being involved in lameness, a series of radiographs may be made of the bone and/or joints. During filming of the feet, it may be necessary to remove the shoe(s) to obtain better radiographs. Afterwards a protective

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bandage can be placed on the foot immediately, until the shoe can be replaced. X-rays can only reveal bony abnormalities, and are not always useful for very early stages of disease.

Ultrasonography: Soft tissue and more recent injuries may need examination with this technique. Experienced operators and good equipment are necessary for proper diagnosis. Healing of certain injuries can be monitored with ultrasound.

Other techniques: **scintigraphy**, where bone turn-over is assessed via an injection of a substance that has an affinity for areas of inflammation or **thermography**, where heat is assessed on a camera, are sometimes used to find out the cause of lameness. It may also be necessary to take blood samples. Rarely **arthroscopic evaluation** of a joint may need to be employed to fully appreciate the extent of certain damage. This keyhole surgery involves a full anaesthetic, and the surgeon will look at the injury with telescopic equipment.

Recently **MRI scans** and/or **CT scans** have become a very useful way of imaging complex foot problems. Traditional imaging techniques of the foot are sadly not very clear in showing up all structures in the foot. Tendons and ligaments are hidden in the hoof.

Farrier involvement: The help of your farrier is often needed during examination and treatment. Having you, your farrier and your House & Jackson vet all together at one time is more valuable than trying to pass information back and forth second-hand. Weekly farrier clinics are held at the Practice, and it may be necessary for the horse to be shod under our supervision to investigate possible causes of lameness.