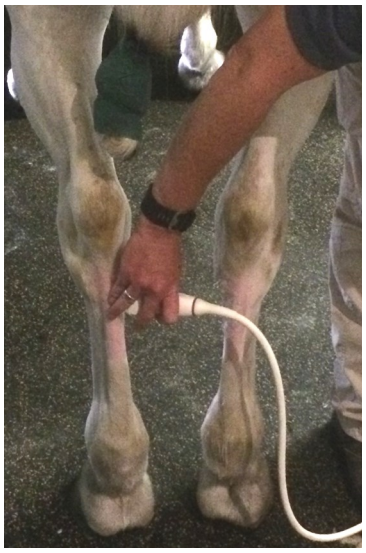
HOUSE & JACKSON
VETERINARY HOSPITAL

High Suspensory Desmitis

A common cause of poor performance

High Suspensory Desmitis (HSD) is frequently diagnosed as the cause of hind leg lameness. Many horses that suffer from the condition have been presented for bad behaviour or poor performance. A frequent part of their history is that they have been thought to have back problems, saddle problems, or even temperament problems. Hind leg problems should always be eliminated by your veterinary surgeon in any case of poor performance.

In the hind leg, the Suspensory Ligament courses from just below, and at the back of the hock, to the sesamoid bones at the back of the fetlock. Below the fetlock, the sesamoidean ligaments strap up the fetlock as an extension of the Suspensory Ligament. This ligament is involved in providing support for the normal action of the leg, and mainly to prevent excessive dropping of the fetlock. There is some evidence that training increases the strength of the Suspensory Ligament. Therefore, regular training may provide some protection against injury. When regular training becomes a repetitive strain is when the horse is in trouble. The suspensory can inflame anywhere along it's length, but HSD is characterized by the inflammation of the proximal part, below the hock.



What is desmitis of the Suspensory Ligament?

High Suspensory Desmitis (HSD) is a common injury in the forelimbs of performance horses. In these cases, HSD tends to be characterised but a sudden onset of lameness, which may well resolve with rest. In horses with more long-standing desmitis, lameness may be more persistent. Lameness varies from mild to moderate, but is rarely severe. Foot imbalances are a frequent cause of these injuries. Another predisposing factor is back-at-the-knees conformation.

HSD in the hind limbs is probably more common. This lameness is usually more insidious in onset, and the degree of lameness may vary from mild to severe. Many horses with this problem exhibit poor performance, rather than an obvious lameness. Horses could only exhibit bucking when ridden, or refuse to do certain movements. HSD in the hind limb is encountered in horses from all walks of life. The problem is fairly commonly diagnosed in cobs and dressage horses. Horses with straight hock conformation, and horses whose fetlocks drop deep seem to be predisposed to this injury. Another predisposing factor may well be a long toe and low heel of the hind foot. Horses with a sudden onset of HAD may have signs of heat, pain and swelling, but frequently no abnormality can be distinguished by feeling the area. It is very common for horses who suffer from HSD in the hind legs to be unable to engage their hindquarters. The lameness is also often characterised by a reduced forward placement of the hind leg.

How can HSD be diagnosed?

Pain that emanates from the upper Suspensory Ligament area can be numbed be a specific nerve block. If a horse moves better after such a nerve block, your vet can diagnose pain from this area. Frequently, other nerve blocks may have to be carried out to eliminate other problems in the leg. It is very common for this problem to be present in both legs, and therefore the result of the nerve block may be that the horse goes lame in the opposite leg after a positive block.

A full investigation of the high Suspensory Ligament will include ultrasound scanning of the ligament, an x-ray of the area of attachment and in some rare cases a bone scan or MRI scan. Typically, disruption of the fibres, swelling of the ligaments and abnormalities in the bone at the attachment site can be seen.

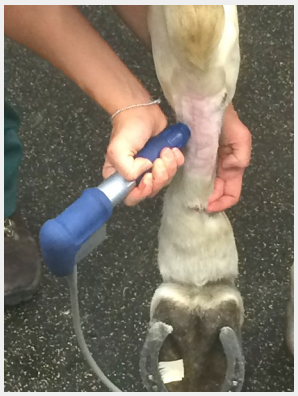
What is the prognosis for horses suffering from HSD?

Here, a clear distinction between the condition in front legs and hind legs has to be made. Suspensory desmitis in the front legs seems to respond fairly well to reduced exercise and box rest. Approximately 90% of horses will resume full athletic function with recurring injuries. If the injury is more long-standing in nature, such a high success rate may not be achieved.

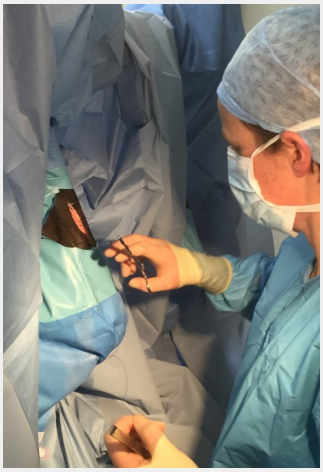
In the hind legs, HSD seems to be a much more persistent problems. Only 40% of horses seem to be able to return to full work after non-invasive treatment. A surgical intervention has allowed us to improve those success rates substantially.

What treatment is recommended for HSD?

The most important treatment for HSD is box rest and controlled exercise. A minimum period of three months' walking exercise is recommended. This period may have to be extended if the condition has been present for longer. It may be useful to administer anti-inflammatory drugs.



Extracorporeal shockwave treatment has been successful in some horses with long-standing lesions. It is a very useful addition to the non-invasive techniques that are available for treating ligaments. Shockwave manages pain in ligaments and helps with the fibre organization of the injured structure. We are likely to recommend shockwave treatment early on in the condition.



Other treatment regimes can include injections of corticosteroids or other anti-inflammatory drugs around the lesions, and remedial shoeing.

It may be useful to monitor the rate of healing by performing further ultrasound scans. Unfortunately, the rate of healing cannot always be estimated well from these scans. Some horses may improve dramatically clinically, but their ligaments still show the same abnormalities on ultrasound as before.

A surgical procedure can help the recovery rates of those animals that have not responded to conventional treatment. This procedure is called Fasciotomy and Neurectomy. It involves sectioning a very small nerve branch that produces pain in the high Suspensory Ligament, and it allows the ligament to swell without pain. This operation has allowed us to increase the success rates of 40% in hind legs up to 90%. Careful case selection is needed to ensure that the horses with the best chance to get better are operated on.

Inflammation of the upper Suspensory Ligament is a common cause of poor performance and suffering in horses. Many performance horses never reach their full potential, and numerous pleasure horses may go through their life with pain, because of this condition. Better diagnostic techniques and advanced treatments have allowed vets to diagnose this condition and treat it more satisfactorily. If you are in doubt, whether your horse is moving well or whether it could be in pain, make sure to ask your vet to examine your horse's movement closely. This may require you to ride the horse under close veterinary observation. Many other issues, such as other causes of hind limb lameness, back problems, and even diseases like stomach ulcers can present with signs similar to HSD.