



The Liphook Equine Hospital

BRUISED SOLE

The sole is the insensitive protective undersurface of the horse's foot in which are the highly vascular (rich in blood supply) and sensitive (rich in nerve supply) tissues (laminae) which connect the hoof to the pedal bone.

What is a bruised sole?

Bruised soles are one of the most common causes of lameness in both shod and unshod horses. Injury to the sole may cause damage to the sensitive structures underneath and this results in 'bruising'. The result is often damage to the many tiny blood vessels underneath the sole and consequent haemorrhage (bleeding). This may either resolve quickly and cause no further problems or may result in the formation of a haematoma ('blood blister') between the sensitive tissues and the non-expandable sole. The pressure caused by this 'blister' on the sensitive tissues causes pain and lameness. Even if a haematoma does not develop, there may be sufficient damage to the laminae of the sole to result in pain and lameness.

What are the most important causes of bruised sole?

Any accidental injury to the sole of the foot can result in a bruise. Treading on a stone or another hard object is probably the most common. Other causes of sole trauma are poorly fitting shoes and excessive work on hard ground, especially when unshod. Foot trauma is predisposed by thin soles in some horses.

How is a bruised sole diagnosed?

Most commonly, the horse may become suddenly lame or may appear to recover but be lame again the next day. The lameness usually affects one leg only and pain can often be located by your farrier or veterinary surgeon with pressure carefully applied with hoof testers. Once the area of sole pain has been established, sole paring over this area reveals a visible bruise, i.e. a reddened area of sole. In some cases, the strength of the pulse in the heel arteries (digital pulse) may be increased, when palpated with a finger, and the feet may appear warm to the touch.

How is a sole bruise treated?

The horse's shoes are first removed and then the sole is pared over the bruise to relieve weight-bearing pressure, although excessive paring should be avoided in thin soled horses or the pain may be worsened. A poultice and protective bandage is applied to the foot. The poultice is removed after 24 hours and the protective bandage is replaced for a further 48 hours. The foot is then trimmed and shod when the foot is no longer painful.

How can sole bruises be prevented?

All horse' s feet should be regularly trimmed and shod by a qualified farrier and should always be picked and thoroughly cleaned out before exercise. Exercise on uneven and stony ground should be avoided, particularly for thin soled horses.

Protective hoof pads are sometimes used for thin soled horses. These are layers of rubber or leather that are fitted between the foot and the shoe so that the entire sole is covered in an attempt to prevent bruising of the sole. They should be used with care since they are often at best ineffective and at worst detrimental. Pads may exacerbate the effect of uneven ground because they effectively bring the sole closer to the ground surface. Also, stones and other objects may become trapped between them and the sole. Pads prevent the essential daily task of thoroughly inspecting the solar surface of the foot and frog. Nevertheless, despite these problems, pads remain very popular with some owners and trainers.

Cautions

A foot abscess (infection) can cause a similar type of sudden lameness with focal pain. Solar abscesses also commonly occur in horses and in such cases the abscess must be found, drained and poulticed without delay or serious complications can occur.

If sole pads are to be used, shoeing horses with pads is a job for a specifically-experienced farrier.

Call your veterinary surgeon if your horse does not make satisfactory progress, i.e. is not significantly more comfortable, within 48 hours.