



**Massey University**

# **Veterinary Teaching Hospital**

## **SEEDY TOE**

### **What is seedy toe?**

Seedy toe is a separation of the horse's hoof wall from the underlying sensitive laminae at the white line, resulting in a cavity which fills with crumbling dirt, horn and debris and is prone to associated infection.

### **What causes seedy toe?**

It can occur as a complication of chronic laminitis with rotation and sinking of the pedal bone (P3 or distal phalanx), followed by secondary infection. It can also occur in non-laminitic feet with long toe/low heel conformation, where the hoof wall separation and subsequent infection are the primary features. It may also occur in feet with poor dorso-palmar (front to back) balance and as a sequel to 'club foot' and may be predisposed by poor quality hoof horn.

Infection with anaerobic bacteria and yeasts, which are common hoof contaminants and an important feature in all forms of seedy toe, can liquefy hoof keratin, separating the sensitive laminae, progressing to rotation of the pedal bone as in laminitis.

### **How is seedy toe diagnosed?**

When cleaning or searching the horse's foot, a cavity is found between the hoof wall and underlying sensitive laminae, i.e. along the white line, usually at the toe. The associated hoof wall is often very poor quality crumbling horn. The condition does not usually cause lameness, unless there is active infection within the cavity, or the condition is secondary to chronic laminitis, both of which exert pressure on the sensitive laminae of the hoof.

Radiographic (x-ray) examinations will define the extent (depth) of the separation and whether pedal bone rotation or pedal osteitis has occurred.

### **How is seedy toe treated?**

The separated and necrotic infected horn should be removed by your farrier or veterinary surgeon with a hoof knife, establishing drainage and exposing the infected tissues to air, discouraging growth of anaerobic bacteria. The edges of the normal horn should be tapered to prevent the collection of infected dirt and debris. Antiseptics and astringents, e.g. dilute povidone iodine or antibiotic wound spray are applied to the cleaned, raw tissues and the horse should be treated with antibiotics, active against both aerobic and anaerobic bacterial infections, if the deeper tissues of the foot are involved.

Tetanus antitoxin must be given, if the horse is not fully vaccinated up-to-date or if vaccination status cannot be confirmed.

Afterwards, the horse should be stabled in clean, dry conditions while the hoof wound is regularly cleaned and treated until the infection is controlled and the tissues heal. The horse should then be shod with a seated-out, flat, broad-webbed shoe, fitted long at the heels, or a full-bar shoe, to help support the foot until the hoof re-grows. Where large amounts of hoof have been removed it may be necessary to use a glue-on shoe.

Feed supplements containing zinc, biotin and methionine may help to aid good quality hoof growth, especially for those horses with naturally brittle feet. Those with naturally brittle feet may also benefit from being fed gelatine.

### **How can seedy toe be prevented?**

Your horse should be exercised regularly and stabled in clean dry conditions. Your horses' feet should be regularly trimmed and shod, by a competent farrier, to avoid the development of long toe conformation which may predispose to laminitis, which can predispose to seedy toe. Keep your horses' feet regularly picked out and cleaned to avoid the development of infection.

### **Caution**

The prognosis for complete resolution is good for cases of seedy toe which are diagnosed and treated early, unless laminitis is involved, and/or there is already extensive involvement of deeper tissues. However, the prognosis for chronic cases is less good and these can only be managed at best by regular hoof trimming and skilful shoeing.

It may take considerable time for the hoof defect to fill with new horn. Remember that hoof wall horn grows down from the coronary band at approximately 1 cm per month.

Make sure that your horses are always fully vaccinated against tetanus, an invariably fatal infection which can gain access through a seedy toe.