

Penetrating Foot Wounds

Penetrating foot wounds in horses are relatively common, most usually caused by stepping on a nail, but any sharp object could cause significant damage.

Deep penetrating injuries to the foot can affect the coffin joint, navicular bursa, tendons or pedal bone. All of these require immediate veterinary attention to prevent a severe and permanent lameness.



FIGURE 1: PENETRATING FOOT WOUNDS ALSO CARRY A RISK OF TETANUS



FIGURE 2: WOUNDS OVER THE FROG (GREEN PIN) CARRY A HIGH RISK OF JOINT PENETRATION, WHEREAS WOUNDS CLOSE TO THE TOE (BLACK PIN) ARE LESS LIKELY TO HAVE SERIOUS CONSEQUENCES

Clinical advice

- All foot wounds associated with lameness or bleeding should receive urgent veterinary care.
- For any severe lameness examine the foot for possible injury and get immediate veterinary attention – remember small penetrating foot wounds can be very difficult to identify.

KEY POINTS:

- seek immediate veterinary attention;
- deep penetrating foot wounds can cause permanent severe lameness (figure 1);
- if the foreign body is still in place do not remove it, unless it will penetrate further if left;
- clean and dress the foot to prevent further contamination;
- foot wounds are a potential source of tetanus.

Diagnosis:

- a visible wound to the foot may or may not be present;
- lameness may range from mild to severe;
- increased digital pulse and heat in the foot will often be found;
- there is usually pain on hoof testers over the site of the penetration (figure 3).



FIGURE 3: FOOT TESTERS MAY HELP TO LOCATE A PAINFUL AREA

INVESTIGATION AND TREATMENT

- Treatment of foot wounds depends on the depth and structures involved.
- Investigation in the form of x-rays particularly with the foreign body present will indicate which areas are likely to be infected.



FIGURE 4: X-RAY OF METALLIC FOREIGN BODY PENETRATING FOOT

- Wounds involving the coffin joint or navicular bursa will require flushing under general anaesthetic. This needs to be done as soon as possible after the injury to prevent permanent damage.
- Less serious wounds will require foot paring, tubbing, poulticing, antibiotics and tetanus cover.

What to do



FIGURE 5: POULTICE APPLICATION

If the foreign body e.g. nail is still in place, do not remove it. Secure some padding around it to prevent it moving or being driven deeper into the foot. If the vet suspects a deep penetration an x-ray will be taken. A metal foreign body provides an excellent marker on the x-ray, showing which structures of the foot are involved (figure 4). If the nail is removed, diagnosis is much more difficult.

If the foreign body has already come out, soak and scrub the foot in hot salty water and apply a poultice dressing until the vet arrives in order to prevent further contamination of the area (figure 5).

Any foot wound is a potential source of tetanus so always check that your horse is fully vaccinated. If you are unsure call your vet - a dose of rapid acting tetanus antitoxin can be given and /or a tetanus booster vaccination.

Prevention

- Examine and clean out feet daily to assist early identification of injuries.
- Great care must be taken to clean up after the farrier and after any building or fencing work to prevent this type of injury.



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