



Fractures

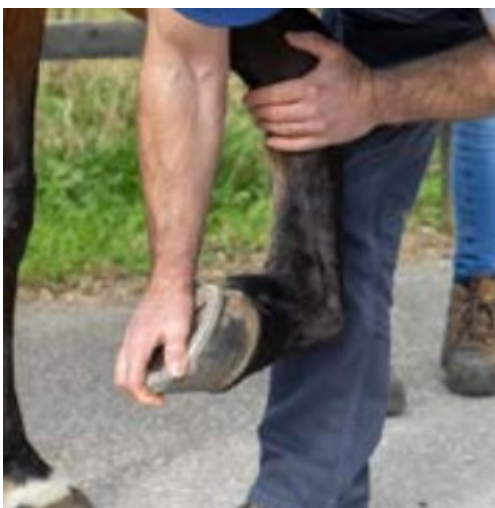
Bones

Recent advances in equine fracture treatment has improved the prognosis for certain fractures hugely and the number of injuries and fractures that have a good prognosis with state of the art treatment is increasing. After enamel and dentin (found in teeth), bone is the third toughest material in the body. It is in charge of protecting important organs. It gives the body structure by allowing muscles to attach and generate forces and movement. It is also the body's greatest calcium and phosphate reservoir. Bone is constantly renewing itself through a remodelling process that is impacted by the stresses and strains exerted on the skeleton during activity. It's one of a kind in that it can heal without leaving a scar after a fracture.



What are the signs of a fracture?

- Acute or sudden onset of severe lameness, usually non-weightbearing
- Leg is not at the correct angle
- Signs of shock (sweating, anxiousness, high heart rate)
- Swelling and or heat around the area



How to diagnose a fracture

When your horse is examined by the veterinarian, they will palpate or feel the region for any signs of heat or swelling that could reveal the cause of lameness. The presence of 'bone crepitus,' or a loose bone under the skin, can indicate a fracture. Radiographs may be taken to rule out the possibility of a fracture. With modern mobile radiography equipment, this is now possible to perform in a field or at your stables. A mobile Xray can rapidly display images on a screen, in order to get a quick diagnosis. Non-displaced or incomplete fractures are very difficult to diagnose straight after the accident. This is because the two fragments of bone are still close together and therefore not visible on the radiography. Other specialist imaging modalities such as Ultrasonography, Scintigraphy, Magnetic Resonance Imaging and Computed Tomography can help to diagnose non-displaced or incomplete fracture.





Kings Bounty Equine Practice Client Fact Sheet

How to stabilise the fracture

If your vet has diagnosed a fracture that requires corrective surgery, the primary treatment will be to stabilise the leg, to avoid a catastrophic injury.

In order to achieve this, your vet will use a Robert Jones Bandage, casting material or splints. Giving the horse support makes them more comfortable and reduces the risk of further injury to travel the horse and until the surgery can be performed.

Animal Welfare Legislation states that all injured horses are transported carefully and humanely. The ramp to the horsebox or trailer must have very little incline and the horse should walk as little as possible.



Surgical fracture repair

Surgical fracture repair involves external and internal fracture fixation.

External fixation is not often used for fractures in horses. However, it can be used for extreme comminuted fractures and entails pins positioned through the limb which takes the weight of the leg, allowing the fracture to callous and heal.

Internal fixation is the use of metal screws and plates to bring fractured bones together and to support them whilst they heal.

Treatable fractures in UK have traditionally been repaired under general anaesthesia. However, certain types of fractures in horses are now amenable to surgical repair in the standing sedated patient.



The healing process

Fracture healing in horses occur at a slower pace compared to other animals and humans.

It can take 12 weeks or more before a fracture completely heals. Radiographs will be used to monitor the healing process.

The success of a fracture repair is fully dependant on the type of repair performed and the nature of the fracture. Complicating factors include wounds and soft tissue damage. If there is an associated infection at the fracture site this will complicate and delay healing of that area.

The development of new internal fixation techniques and improvements in imaging and anaesthesia techniques, means that many fractures in the horse can be repaired and result in the horse returning to athletic performance.