



# Vet's Casebook



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## Are fractures treatable?

**Sam Galloway** explains that, with veterinary skills improving all the time, a broken limb is not always as dire an injury as it once was

**“**I'm sorry to say your horse has a broken leg” is one of the phrases guaranteed to send a shiver down the spine of even the most resolute of horse owners.

With horses and ponies reaching higher levels of fitness and performing greater feats of endurance, speed or jumping capacity, the stresses the bones of the limbs are placed under is similarly increased. As a result fractures, among other limb injuries, are diagnosed more commonly than in years gone by.

Fortunately, methods of fracture management have also progressed so that the dreaded phrase doesn't have to be such bad news.

If I was to ask a random sample of horse owners: “What is a fractured leg?” most would probably describe a life-threatening injury with the horse in terrible distress and unable to bear any weight on the limb. Many breaks are far from this scenario.

There are around 20 bones in the forelimb of horses and ponies – the number varies slightly between individuals – and only certain types of fracture of particular bones are accepted as being without hope of successful treatment.

Taken literally, a fractured leg is a break of any bone in the limb. Small chip fractures are common injuries, often as a result of a kick from a field companion. Unless the chip involves a joint, this type of break is often straightforward to treat with rest, external support of the limb or sometimes removal of the chip fragment.

At the other extreme, a fracture across the whole width of a bone is more serious, but even for this type of injury there are often options for treatment.

For more severe fractures the factors that influence the outcome are the degree of displacement of the fractured parts of the bone, involvement of joint surfaces and damage to soft tissue (skin, tendons etc) particularly if the frac-



**Treatment:** Plate and screws to internally fixate a fractured tibia

ture is exposed through the skin.

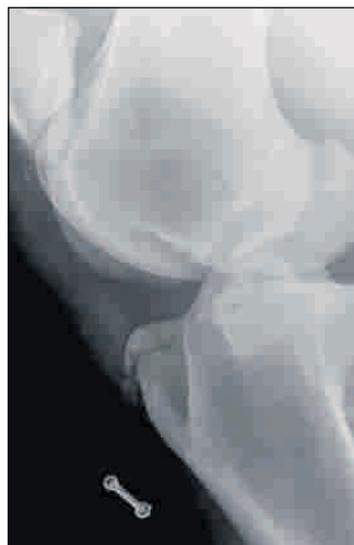
Also, as a general rule, the further up the limb a complete fracture is sustained the worse the prognosis.

Once a fracture has been evaluated with x-rays, treatment may consist of external support with casts or splints or internal fixation using plates, screws and pins. These techniques are widely used in the management of fractures in

cats and dogs, but the metal work obviously has to be far stronger for a horse.

There are other methods taken from small animal colleagues – a few years ago we removed the top of the femur from a donkey that had fractured his hip, a method commonly used in treating breaks, dislocations or arthritis of the hip in cats and smaller dogs.

Metal frames placed outside the



**Operation:** Small fracture from front of stifle, removed by surgery



**Good prognosis:** Fracture to point of shoulder. The two black lines are breaks. They healed well with box rest

**‘I'm glad to say we diagnose more broken limbs that we can manage than those we cannot’**

limb have also been used to stabilise fractures but are still very rarely used in equine patients.

We are often asked why a horse or pony has sustained a fracture. Sometimes it is obvious, such as kick breaking a splint bone or an injury during a fall, but other times a break seems to have occurred for no apparent reason.

There are things that can be done to reduce the risk of breaks happening during exercise. Maintaining a consistent level of exercise is important. Bone will adapt to increasing work load by strengthening itself, but this takes time. A gradual increase in intensity is the key so the bones have time to adapt.

Good foot balance ensures even weight distribution on the limb.

This means that the forces applied to the bones are spread as evenly as possible so that any single area doesn't have to take an unduly high load.

Riding on good ground where falls and slips are likely to be minimised will obviously play an important role too.

Unfortunately, there are still freak accidents where a bad fracture is sustained in seemingly innocuous circumstances despite all reasonable steps for prevention.

I'm glad to say that we diagnose many more broken limbs that we can manage than those that we cannot. As skills and methods of fracture fixation progress we can hope that all breaks will eventually be treatable.