

Hoof Cracks

Hoof cracks can occur in all breeds of horses and ponies and can be a significant cause of foot problems and lameness. Once formed, the cracks can take many months to grow out and in severe cases can cause recurrent problems.

Recognising when your horse has a crack and getting suitable, prompt treatment, can help to significantly reduce the time and interventions needed to enable a crack to heal.



Hoof crack signs

There are several types of hoof crack that are described by their location.

Sand cracks are vertical cracks located at the front of the hoof wall.

Quarter cracks are vertical cracks at the side of the hoof wall. True quarter and sand cracks start at the coronary band.

Grass cracks start at the bottom of the hoof wall and extend up towards the coronet.

Horizontal cracks usually occur as a result of trauma or following an abscess that has burst out at the coronary band.

Hoof cracks can be of varying thickness, involving just the outer surface of the hoof wall through to full thickness cracks that go into the underlying sensitive structures and laminae.

Hoof cracks lead to hoof capsule instability and can be associated with inflammation, infection and lameness.



**A QUARTER CRACK
EXTENDING FROM THE CORONET**

Causes:

- hoof imbalance (most common);
- quarter cracks - associated with medio- lateral (side to side) foot imbalance and sheared heels;
- sand cracks - associated with a concave hoof wall with a long toe and low heel;
- trauma to the hoof/coronet and pre-existing damage to underlying laminae.

KEY POINTS

- There are several different types of hoof crack described by their location and direction.
- They can be associated with inflammation, pain, infection and lameness.
- Hoof cracks are usually caused by foot imbalance or trauma.
- Treatment involves correcting foot balance and stabilising the foot using a bar shoe.
- Additional treatments including making a v shaped groove and using wires or implants across the crack.
- Prevention involves maintaining good foot balance and farriery and healthy horn growth.

Treatment

There are many different methods for treating hoof cracks and no single method will be suitable for all cracks.

The first and most important aspect of treatment is to address any foot imbalance. For sand cracks, the toe needs to be shortened and the concavity of the hoof wall corrected. For quarter cracks, any medio-lateral foot imbalance needs to be corrected. The crack also needs to be cleaned out and any infection resolved.

Following this it is important to immobilise the hoof wall either side of the crack. The coronary band needs to be stabilised to allow new hoof horn to grow down without a crack. One of the simplest ways of achieving this is by applying a heart bar shoe. In addition to this the patient should have its movement restricted, possibly including a period of box rest initially.

For more advanced cracks, further remedial farriery may be required. Some methods include the use of metal bone plates or resin bridges placed across the defect to stabilise the crack and therefore the coronary band.

An alternative method that has been successful involves cutting a V shape in the hoof wall at the base of the crack to disassociate the coronary band from the pressures of the hoof crack. This in turn stabilises the coronary band. Some cases can be treated by threading fine wires either side of the crack, combined with special implants to help stabilise them.



SAND CRACK STABILISED WITH A METAL AND RESIN BRIDGE



QUARTER CRACK AFTER BEING CLEANED OUT AND STABILISED

PREVENTION:

- maintain good foot balance and regular farriery;
- treat small cracks early;
- treat coronary band wounds promptly;
- feeding supplements containing biotin, methionine, zinc and limestone flour (calcium), can improve horn quality.



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