

QUARTER CRACKS



(Picture from www.andulusians-for-you.com)

INTRODUCTION

To see what a quarter crack looks like and what we do to repair it cut and past this link of Ian Mckinlay's video into your web browser.

<http://www.youtube.com/watch?v=sx5gU1K7KtQ>

What is a quarter crack?

It can be a mild superficial hoof wall crack, or a deep fissure that involves a full thickness hoof wall crack that penetrates into the dermis/sensitive laminae below.

Quarter cracks can be painful due to infection, and there can also be a painful instability caused by movement of the hoof wall posterior to the crack.

A quarter-crack is a crack that appears in the wall of the hoof, in the area known as the quarter. But similar types of cracks can occur in other parts of the hoof.

What can cause it?

Causes of quarter cracks may include

- Trauma to the coronary band which then stops the hoof re growing at that point.

- Abnormal hoof conformation; especially the long toe underrun heel, thin hoof walls, foot imbalances, short shoes A horse's foot may be offset to one side, so it bears more load on that side; or it may have a low or under-run heel, where sufficient structure in the back of the foot is lacking

- Abnormal limb conformation. It may start from the shoulder or knee down, when the limb is rotated outward in such a way that the horse lands on one side of the foot and then puts pressure on the inside.

- An abnormal landing pattern when the foot strikes the ground.

- Infection or seedy toe

Quarter Crack treatment:

Many of the horses that develop quarter cracks are required to continue to perform. To do so, infection must be prevented from entering the wound, strength and stability to the hoof wall defect must be achieved. The horse should be able to perform at the same time as promoting healing so that the crack will grow out.

There are several techniques for repairing hoof cracks described in the literature. They include corrective shoeing, stabilizing the crack by placing implants across the defect and covering the crack with an acrylic material.

Every horse is an individual, and every case presents differing owner / horse requirements which are always discussed on our first visit.

Firstly Correct the Cause

It is always necessary to try to determine the underlying cause of the quarter crack and to correct it where possible.

For example horses with long toe underrun heel foot conformation appear to be prone to quarter cracks given poor support of the heels. Delayed breakover from the long toe causes increased pressure on the heel at the “stance phase”

Below is an excerpt from Dr Steven O’Grady’s website (<http://www.equipodiatry.com/qtrcrka.htm>)



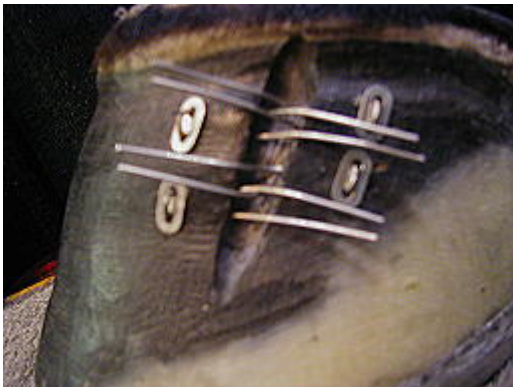
Short shoes leave the heels unsupported and put the weight-bearing surface in front of the vertical axis of the limb. In such instances, a vertical line drawn from the origin of the quarter crack will invariably coincide with the end of the shoe (Figure 1). The use of an aluminum plate with a toe grab as used in racehorses raises the toe, creating a broken-back hoof pastern axis. This would also appear increase the pressure in the posterior part of the foot.

Dr O'Grady also points out that hoof imbalances from trimming or conformation and subsequent poor landing can place increased or excessive forces on the hoof wall causing bruising and sometimes shearing of the lamina.

REPAIR OF HOOF CRACKS

Horse that don't need to work can simply be trimmed appropriately sometimes offloading the cracked quarter, and put a bar shoe on them. The bar stops the vertical movement of the two heels, so you stabilize the back part of the foot

Horse's that need to work right away, need a different approach. Repair involves using a dremel type router to clean out the crack then using implants to stabilize the injury. This involves putting some hairpin wires across the crack opening from either side, and repairing it. Once that's in place, the finishing is patching over the defect with an adhesive bond of specially formulated product. This bonds to the hoof while retaining the same flexibility of the hoof wall thus reducing further injury.



Taken from

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Ultimately, the experts agree, it's critical to deal with each horse as an individual that requires individual attention, likely differing in each case, each conformation, each purpose for which the horse is used.