

Q&A

What is HPA?

Q What does my farrier mean when he says my horse has a broken-back hoof conformation?

Nick Rule answers:

The pastern is the lower limb of the horse, running from the fetlock joint (metacarpophalangeal joint in the front limb, metatarsophalangeal joint in the hind limb) to the tip of the pedal bone (distal phalanx). There are three types of Hoof Pastern Axis (HPA)...

- ▶ a normal/ideal (see photo 1).
- ▶ broken forward.
- ▶ broken back (see photo 2).

The blue line on each image shows the amount of deviation through the limb. With the normal HPA, the blue line runs across the front (dorsal) surface of the pastern and joints, whereas the line on the broken-back HPA deviates quite significantly from the blue line, forming a bow defect through the limb. This naturally causes weakness through the pastern, putting strain on the joints, tendons and ligaments.

Potential problems

The typical conformation in a broken-back HPA consists of long toes and flat feet with low, weak heels, and horses with this type of conformation may have a tendency to trip or stumble due to the extra effort required in moving forward. Other problems associated

with this type of conformation include navicular syndrome (the degenerative condition of structures in the navicular region), navicular disease (degeneration of the navicular bone) and soft tissue damage in the heel region.

Remedies

As with all types of HPA defects, the aim from a farriery point of view is to try to achieve a normal HPA without compromising the hoof or soundness of the horse. In a lot of cases, a side clip shoe is ideal, to set the shoe under the toe of the foot.

This has the effect of shortening the toe (reducing the breakover point of the foot) without having to rasp the strength out of the hoof wall, but giving plenty of support through the heels. This in turn will help reduce the chance of stumbling, help improve the hoof-pastern angle and all being



1 – the ideal HPA



2 – broken-back HPA

well, some heel growth.

In some more extreme cases, a graduated heel shoe can be applied, ideally with some form of frog support because this will help prevent further crushing of the heels of the foot. However, graduation through the heels is not generally a good long-term remedy because it can result in constriction of the flexor tendons.

Top tip

▶ When looking to buy a horse and you suspect a broken-back HPA, it shouldn't necessarily put you off, as long as you have a good farrier willing to take the time to do what is best for this type of hoof conformation.

Treat him

Q How often should your horse see a physiotherapist/chiropractor?

Gudrun Wallis answers:

It is difficult to generalise and say how often exactly horses should be seen by a healthcare practitioner. With different horses being used for so many purposes and disciplines, one will have to bear in mind the workload and type of activity each individual horse performs.

The good news is that treatments, whether in the form of chiropractic adjustments or physiotherapy, are not only beneficial to treat an injury, but will also act as injury prevention, flagging up areas of increased strain and compensation. This will help to highlight and treat minor issues which may otherwise lead to injury.

How it helps

The benefits of having your horse regularly seen include the detection of areas that have to accommodate increased strain due to the

right!

type of work performed, detection of areas that deal with compensation due to other factors and detection of mild injuries that have not become apparent yet. Another great benefit of regular treatments is that the elimination of subclinical issues will allow the musculoskeletal system to fire on all cylinders – ie, work as near to 100% efficiency as possible with regards to range of motion, flexibility and muscle function.

As a general idea, horses who are less frequently ridden, working at the lower levels or used for pleasure riding will benefit from a six-monthly check-up for the aforementioned reasons. Logically, the more work a horse performs, the shorter the spaces between check-ups should be. This can range from a four-times-a-year



treatment plan to monthly maintenance treatments for horses competing at very high levels, similar to the care given to human athletes.



Treatment can also flag up any potential hot spots

Generally, horses working at the lower levels benefit from a check-up every six months

He's got the lump...

Q My horse has developed some hard, pea-sized lumps on his back where the saddle sits. They don't seem to be causing him any discomfort. What could they be?

Deidre Carson answers:

These sound like nodules commonly called 'collagen necrosis' nodules. Their cause is not fully understood but they are almost always non painful and not itchy. They are usually found on the back, but might also be found lower along the sides and occasionally on the neck. They are rarely larger than about 1cm across and firm to the touch.

In some cases, they might become very hard if the nodule has become calcified. We tend not to worry about them too much, because they can often resolve without interference and rarely cause the horse any problems. If they are numerous, you should always use a good-quality, soft saddlecloth to

avoid transferring pressure to the underlying muscle.

Other conditions

There are a couple of conditions that may appear similar. One is folliculitis where there are usually several small raised bumps, each with a small raised centre which might be slightly painful. This can be due to the use of dirty saddlecloths, but it usually responds to topical antibacterial shampoos and regular

washing of all saddlecloths.

A more serious condition is known as 'staph spots', in which there are very painful raised lumps caused by infection of the skin with the bacterium *Staphylococcus aureus*. In the latter instance, there may be one or several lumps and they may be 'joined' by a cord of raised skin, indicating involvement of the lymphatics under the skin. These require treatment with antibiotics.



Keeping saddlecloths clean is key to preventing some lumps and bumps

Photo: Bob Langrish



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