

# TREADING ON TOES

## New ideas question traditional shoeing

*If the mention of holistic treatment sets your hackles rising, read on. Detailed here are some thought provoking facts that any vet who deals with horses really should consider.*

The equine world is constantly being bombarded by 'natural' ways to care for horses. From herbal remedies and massage to radical changes in saddling, riding techniques and equine psychology, all are aimed at enhancing equine health and welfare - areas where vets already play an integral role. Farriery has also come under the spotlight and questions are being raised about traditional shoeing. Critics say that methods are not in tune with today's equine requirements and they need to be updated. What's more, many have evidence demonstrating that improvements in shoe design and shoeing technology can significantly improve hoof integrity, foot function, balance and overall equine biodynamics.

### Lameness

Numerous studies with feral and semi-feral herds in Russia, Australia and Continental Europe, covering arctic, desert and temperate climates, show that wild horses do not suffer recurrent lameness problems like those seen in many domestic equines. Even though these herds can travel over 40

miles a day, in the toughest environments, lameness is rare and is usually the result of physical injury.

The studies also show distinct differences between the hoof anatomy of feral and domestic horses. Common observations show that feral animals have a hardy, balanced foot comprising short, strong, circular shaped hooves. The frog is also wide with a firm, elastic texture, soles are thick and the white line is continuous and of uniform width, all around the hoof. Break over is further back than in the traditionally shod, domestic horse. The toe is also rolled and the front of the foot curves upward. This is directly related to the foot's central point of balance, at force of extremity.

By comparison, the domestic horse has flat feet with thinner soles that are often narrow or collapsed at the heels.

The hoof shape is often elongated (particularly in hind feet), displaying long toes that



*The long toed "pointed" foot typical of many horses, far removed from the natural, round shape seen in feral animals.*

are usually trimmed back at shoeing. The frog is smaller and uneven in texture. The white line is often wider at the toe and irregular in width and shape.

These observations are significant and have raised questions about farriery and its impact on foot pathology and hoof integrity.

### No foot, no horse

The old saying no foot, no horse is true. The horse's foot is complex and a vital factor in its survival. It is an integral part of the whole equine anatomy, therefore the way in which it moves, stands still, interacts with the ground, twists, turns and performs will have a tremendous impact



*Better by design? Cytek shoes (right) allow the horse to express natural hoof development and natural foot movement, balance and in all gaits, at all times. They are broader and have an integral rolled*

on the whole animal. Any impediment, no matter how small, will force the horse to compensate, which in turn creates stresses within its body. Therefore, fixing steel shoes to a horse's feet, even in the most balanced and professional way, will have a massive impact. Cytek has been investigating this relationship for over 12 years and has made some startling discoveries. As a result it has developed a shoeing system that allows the horse to express natural foot function and development.

Respected equestrian Mary Wanless states in her book *For the Good of the Horse* (Kenilworth Press 1997) 'That it is not surprising to discover that nature provides the most

- Widening of the white line at the toe. Laminae is stretched because of the constant leverage being applied at the toe.
- Distorted hoof shape, splaying outwards with 'winged' edges, especially toward the heel. A result of uneven horn growth from the coronet as pressure forces the hoof away from its natural shape. Often more apparent in hind feet.
- Excessive growth on the sole is often found at the toe, indicating pressure. This is a 'protective' response, similar to a callous developing on hard worked hands.
- Thickened horn on the outer edge of the hoof which indicates a distorted foot movement. Break over is too far forward and the foot is breaking over at the side.

appropriate blueprint for how a horse's foot should be shaped'. The challenge has been to design a shoe that allows this, thus enabling the horse to achieve its own central point of balance, in all gaits and at all times, while offering protection and support in the domestic situation.

Cytek's answer is a shoe that fits and supports the pedal bone, and in doing so, affords natural hoof growth, foot function and movement. It believes it is the most advanced system in the world. The key to understanding the Cytek philosophy is to understand the integral role

the toe and break over have in locomotion.

All horses, shod or unshod demonstrate that the point of most wear is at the toe. However, traditional horse shoes prevent the natural wear process and therefore toes become long.

This creates stress within the hoof capsule which can be expressed in a number of ways:

The natural (integral) hoof is structured to exploit the benefits of conical strength, but Cytek studies show



*The first fitting of a Cytek shoe - wider than traditional shoes and fitted to allow break over where the horse wants it. Note the wide white line at the toe, illustrating stretched laminae and a sign that previous methods were creating stress in the hoof capsule.*

that this shape cannot be achieved in traditional farriery. Traditional shoeing usually requires trimming or rasping of the toe to re-balance the foot. Cytek says that is detrimental to hoof integrity as it weakens the hoof structure and reduces protection of the pedal bone at the toe. When the toe is free to grow and wear naturally, like it is with a Cytek shoe, the toe remains short, no pressure is created and the whole hoof develops evenly from the coronet, achieving a strong conical structure. By allowing

the horse this freedom Cytek believes common lameness problems can be alleviated, and even be prevented in most horses.

Another key feature is the build up of soil in the sole cavity, which supports the foot. In unshod animals the frog and sole interact with the ground, but once a shoe is in place, the foot is raised above the ground and will not act in the same way. Cytek says that allowing the soil to build up under the foot creates a natural support mechanism, where the sole and frog are integral to foot function and movement.

### Committed Farrier

Ben Perks DWCF, Cytek Farrier, has been a professional farrier for over 20 years. Based in Suffolk, he began Cytek shoeing in February this year and is totally committed to the system.

"This is not a shoeing style, it is a horse welfare issue. I'm not saying that traditional methods are wrong, far from it, but Cytek is a step forward in terms of knowledge and technology, and it cannot be ignored. We are learning too much from it and this must be embraced - it's a huge breakthrough for our profession."

He says the Cytek system has taken his skills and understanding onto another level. "I'm certain it has massive benefits to all horses and ponies and the results I am seeing with various breeds and ages, and with both sound and problem

animals, are all pointing the same way. To some extent, traditional methods do affect foot integrity, balance and movement and that has an impact on the whole horse,



*Shoeing the Cytek way, Ben Perks says it is not a style it's a horse welfare issue.*

both physically and mentally," he adds.

Ben believes most horses that are shod traditionally do suffer a degree of mechanical laminitis, but it is bearable and they learn to cope with it. However, constant aggravation must have long term



*With Cytek, the toe is free to grow and wear naturally and allows the horse to determine break over. The toe remains short as it does in feral animals.*

implications, which is why Ben and other Cytek farriers, feel that many horses are written-off or retired because of foot faults and lameness in their teenage years.

"By understanding what causes these problems and adopting methods to prevent them I believe many laminitic problems could be avoided and even eliminated from most animals," adds Ben.

He says the hoof integrity of the horses which have moved onto Cytek shoes is noticeably better. Their feet are returning to a rounder, upright shape with wider heels and frogs. The horn is strong, shiny and very hard and the white line is uniform. What's more, all these horses now achieve natural break over, characterised by a short, rolled toe with a curved sole like that displayed in feral and unshod animals.

"With Cytek, hoof growth, wear and foot movement is determined by the horse, not the vet or farrier ~ it mimics the feral unshod hoof. Break over is where it needs to be in relation to P3, exactly where the horse wants it, yet the foot remains protected and fully supported," he explains.

### **Vet support**

Dietrich von Schweinitz of the Equine Veterinary Clinic, Puttenham, Surrey is encouraged by the Cytek system. He has used it remedially to treat a variety of foot faults, but believes that it offers positive advantages to all horses. He says that severe problems including collapsed heels, long toes and broken back pasterns have been very well addressed by Cytek shoeing, as have cases of extremely distorted feet and associated laminitis problems.

One particular case, where the horse suffered an extraordinary deformity due to a wire wound, has made significant progress on Cytek shoes. Dietrich is very impressed by the correction, results that were not seen with traditional methods.

"The overall rehabilitation of horses that I have seen, many with immense troubles, is very encouraging and I'm very supportive of this system. The majority of lameness problems should benefit from this technique," he adds. But it is not only remedial therapy where Cytek is making great strides.

Dietrich is increasingly recommending that clients try the system with minor foot faults and balance problems, such as stumbling. Bringing the break over back to where the horse wants it has definite advantages to movement and balance and he believes this has benefits for all horses, not only laminitics or those with foot faults.

# Testimonial

Jane Jordan has an eight year old cob, Harry Boy. The 15.2hh Dales cross has good feet and has



never suffered laminitis, but he was prone to tripping and stumbling, even when being led in from the field. His first set of Cytek shoes were fitted at the end of February and the problems stopped overnight. "I never questioned shoeing as Harry B always appeared sound other than the tripping, but since we've had Cytek shoes on his action has changed completely, it's a lot smoother and he doesn't trip at all." Jane says hoof shape has changed too. Break over is further back, nearer to the centre of the foot, his heels are wider and the hind feet are rounder and not pointed as before. The texture of the new horn, post Cytek is also different and there is a distinct line around all four hooves, showing where this new growth begins (see below). 'His feet have changed completely. The new growth is smoother, shinier and just looks a whole lot better than before, and his frog is wider and in much better shape. Nothing else in Harry B's day-to-day management, work or feeding routine has changed, the only difference is these shoes,' she adds. The horse's conformation has

also changed significantly, as has his way of going. He now stands straight and square and he isn't all 'up front' like he was before, adds Jane. "He feels more balanced and doesn't have an exaggerated cobby action anymore. He now steps, rather than stamps, and he doesn't lurch into canter like he did before," she explains. Although Harry B had no apparent foot problems, Jane says there was obviously something not quite right. "It makes me wonder what may have materialised in years to come. From an owners point of view the Cytek system is pure logic, it makes sense, it works and I believe it has potential for all horses, no matter what they do."



*New horn, post Cytek, is shiny, smooth and visibly healthier The new growth is coming down straight from the coronet and after two sets, Harry Boy's hoof shape is changing, returning to the natural upright, circular conformation seen in feral horses.*