

The back

and beyond



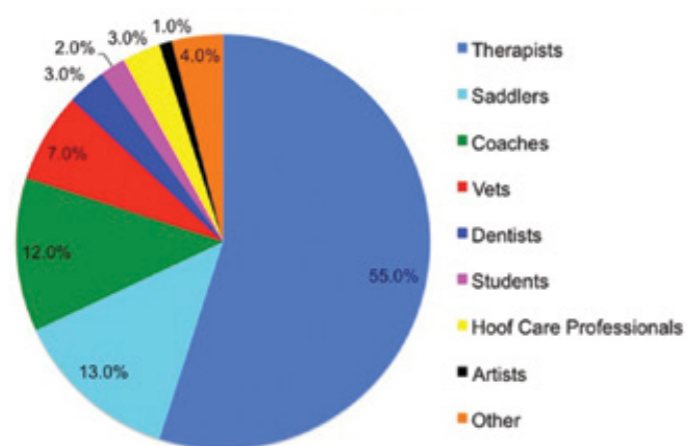
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Lisa Ashton reports from the 7th Horses Inside Out Conference

In this month's article, Lisa Ashton summarises two other top presentations from the 7th Horses Inside Out Conference, which was held at the Royal Agricultural University, Cirencester, UK.

Titled 'The Back and Beyond', the conference gave 200 therapists, saddlers, coaches, vets and practitioners the chance to immerse themselves in two days of presentations that highlighted how a deep understanding of anatomy and biomechanics is not just for therapists, but should be a part of every horse owner and trainer's education.

Who was there?



If you could start your time again with horses, would you do anything differently? Perhaps be more patient, more open-minded or maybe just more critical of the 'advice' that is just one click away?

Dr Richard Hepburn, a veterinarian specialising in internal medicine, spoke at this year's Horses Inside Out conference about gastric and duodenal ulcers, urging delegates to critically analyse everything equine, including his own presentation. This really got me thinking - everyone is a critic, but can everyone critically analyse?

Searching for truth

Has the 'Google Age' with instant, global, free knowledge progressed or regressed our abilities to think critically? Do tweets, comments and shares in forums, blogs and social media provide clear, rational, open-minded and informed information by evidence? Critical thinking decreases the risk of acting on false beliefs or knowledge. How many times have you heard people say: 'Do not feed your horse one hour before exercise'? According to Dr Hepburn, feeding chaff 30 minutes before exercise maintains gastric blood flow during exercise, preventing gastric ulceration.

The process

So why is it so hard to think critically for the good of our horses? Because critical thinking is a process which requires practice. So let's practice. Start by identifying the purpose of a website, blog, article, academic paper or presentation. Question its agenda, information, inferences, assumptions, implications and points of view. Assess it for clarity, accuracy, precision, relevance, depth, breadth, significance, logic and fairness. The result? You should be able to make an informed judgement.

Practice makes perfect

As recommended by Dr Hepburn, have a go at putting your critical thinking skills to the test while you read this article...

Horses secrete gastric acid continuously. Exercise and feeding also increase the quantity of acid produced, lowering the gastric pH. As the stomach empties continuously, the fluid content reduces by half every 15-40 minutes. When feeding small particle feeds (pellets), the fluid content reduces every two hours, and for hay every four hours. These differences lead to stratification of the gastric contents. Gastric emptying is enhanced by exercise, as is intestinal mixing and fluid content. A varied population of bacteria that ferment stomach contents cover the squamous mucosa, a much smaller number of bacteria are present upon the glandular mucosa.

Glandular lesions

Dr Hepburn explained gastric ulcers are diagnosed by gastroscopy, which takes five minutes, light sedation and is performed after eight hours of fasting. Horses can be fed 30 minutes afterwards and ridden later in the day. Ulcers are graded in individual anatomic location on a 0-4 scale. Squamous ulcers are of a single type, but can be focal or widespread. There are six different types of glandular lesions which are most common.

Risk factors

"The squamous mucosa has minimal protection against stomach acid, so ulcers form rapidly," explained Dr Hepburn. Risk factors for squamous ulcer development include daytime forage deprivation, prolonged exercise, transport, simulated competition regime, high-quantity pelleted diets and concentrated oral electrolyte solutions.

Treatment

Treatment requires acid suppression, which according to Dr Hepburn is most effectively achieved with omeprazole in an equine-specific paste formulation, with healing rates of 80-90% within 14-28 days of treatment. Prevention of ulcer recurrence is then achieved with low dose omeprazole. According to Dr Hepburn, neutralising feed supplements can also be effective, but must be given 3-4 times daily.

Common ulcers

The glandular mucosa secretes acid into the gastric lumen, whilst protecting itself against acid damage with a fine layer of mucus and extensive local blood flow. Glandular ulcers are believed to be due

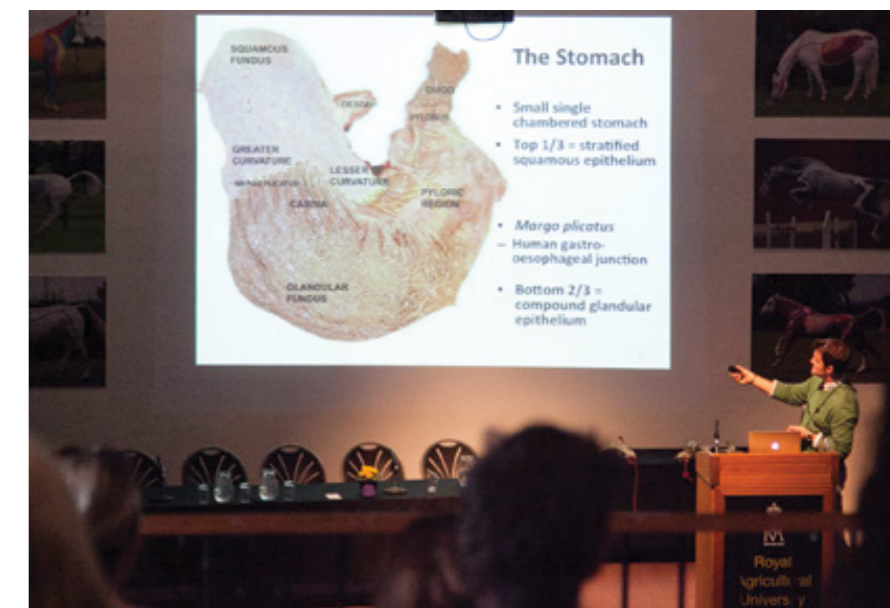


Photo by Helen Richmond photography



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to failure of this defensive mechanism. This type of ulceration is most common in sport and leisure horses, where ulcers are found in 62%. The cause of glandular ulcers is unknown yet, despite this, treatment with omeprazole and the mucosal protectant sucralfate is effective in over 63% of cases.

Squamous versus glandular disease

In glandular disease reports of behavioural change, girthing pain and poor performance are most common according to Dr Hepburn. Typically, these horses have normal appetites and body condition. This contrasts with squamous disease where appetite change, slowed eating, weight loss and poor haircoat are most common.

Impact on performance

Gastric ulceration in racehorses affects the ability of the horse to increase its stride length and reduces time to fatigue. Dr Hepburn also explained anecdotally these changes affect the ability of sport horses to collect and extend.

Dr Hepburn reiterated improved management and feeding regimes by increasing daytime forage intake by using

multiple haynets in the stable, corn oil supplementation to reduce gastric acid production, and splitting the concentrate ration in to two or more feeds to limit the chances of ulcer development in both squamous and glandular cases.

Interconnected and interdependent?

It was not because Dr Bechtolsheimer had trained gold medalists Laura Tomlinson and Carl Hester that my curiosity was finally captured. In truth, it was hearing Dr Bechtolsheimer's ability to think openly and critically, sharing his honest reflections with two hundred delegates as if we were the only ones sitting at his dinner table. "It took me a few years to be patient and a few more years to act accordingly. If I could start again, I would do a lot of things very differently."

Along with his wife and daughter, Dr Bechtolsheimer explained his commitment to new ideas, training methods and open discussions to improve and optimise current practices. Twelve months ago, Dr Bechtolsheimer decided to study 'Join-up' in an attempt to improve his relationship with a complex three-year-old whom his staff described as "a danger to himself".

“Our job is to find a way to show, explain and find a way the horse understands. Punishing horses for not understanding causes stress, panic and resistance, and creates a memory of it,” said Dr Bechtolsheimer.

The presentation was humorous and enlightening, giving delegates an insight into his training philosophy developed over 40 years to produce a system consisting of five key pillars.

“All aspects of educating horses are interconnected and interdependent. If one of these pillars is weak, the whole system will fail.” According to Dr Bechtolsheimer, it is not one thing that makes a horse get to the top of his discipline and the 5 Pillar model is his way to see how they are all connected.

“What you decide as the trainer will influence all other pillars and how your horse will develop his performance, character, expression and joy of life,” he stated, while reminding us that horses are not performance machines.

Pillar A: your approach to training

“If your approach is strict, requiring total obedience until total perfection is achieved, you add more risk factors for mental and physical breakdown. If you choose to humanise your horse and pamper him, never putting a foot on an un-level surface, again you increase risk.” Dr Bechtolsheimer suggests the ‘kindergarten teacher’ approach - fun, but loving and understanding, establishing carefully-chosen boundaries, and allowing for flexibility with individual treatment, according to the horse and rider’s physical and mental strength and weaknesses to build a partnership.



Photo by Helen Richmond Photography

“Punishing horses for not understanding causes stress, panic and resistance, and creates a memory of it.”

“I made the decision to go the sympathetic kindergarten approach,” said Dr Bechtolsheimer. “Because it is common sense and lets us understand when things go wrong.”

Pillar B: basic training

Obedience: Finding the right balance requires split-second decisions. If you are too strict, you might damage the trust you have built, which might take a long time to repair. Too soft, you lose control and your horse won’t reach his potential.

Balance: “This takes time through correct training as we don’t just want to trot around in circles,” said Bechtolsheimer.

Physical strength: This is an ongoing process for all horse trainers. Build it up with increasing amounts of work and breaks. If you don’t do enough, your horse will be unfit, if you do too much too quickly, you will have to be able to spot when your horse is tired, as risk of injury increases. “Varied terrain produces a more complete athlete and clears the brain.” Dr Bechtolsheimer believes Alf won his medal because he was one of the fittest horses at the 2012 Olympics. Mistral Hojris interval trained the horse on the gallops twice a week before the Olympics. “Ensuring a variety of activities for your horse makes a big difference, yet not many Dressage horses get that opportunity. A horse is a horse, he does not choose to be a Dressage horse,” he stated.

Pillar C: teaching movements

Dr Bechtolsheimer reiterated this is probably the most difficult part of training as we are teaching movements, which

are not natural to horses. “Why would a horse in nature do a shoulder-in, half-pass, tempi changes or even a collected walk? When you watch a horse in nature he moves either for leisure and grazing, or in full flight. “To teach what is not natural to your horse,” said Bechtolsheimer. “Is a skill that requires tact and commonsense.”

Dr Bechtolsheimer believes the FEI training scale is a good framework, but more important are the foundations of Pillar A, only asking as much as the fitness of Pillar B allows. “Our main job is to explain to the horse what we want in a way he understands and as easy as possible, so he can do it.”

According to Dr Bechtolsheimer, if we confuse signals and ride too hard it confuses and stresses the horse.

Are you a good teacher?

“If you manage to teach a horse something he normally would not want to do, then you are a good teacher,” Dr Bechtolsheimer explained. He commented that there are not many horses performing a good piaffe, both nationally and internationally. He believes this is because most people teach their horse by telling him to be ‘more together’ and surprised some delegates by asking: “Why would you do that? Piaffe is physically very demanding and many horses don’t have the talent for it. So the rider pulls and the trainer uses the whip. The rider says ‘Don’t go forward’ and the trainer says ‘Go forward’, and maybe sometimes the horse does a few steps, but the horse will hate it.” He recommends that trainers establish the foundations of Pillar A, plus the strength and fitness of Pillar B to shorten the trot, even riding a few walk steps and riding on. Once they get a bit more motivated to try and offer a few steps of piaffe, we can reward them and they will offer more and more piaffe steps. “This is the future foundation for piaffe, providing a positive experience for the horse.”

Pillar D: competitions

When is a horse ready for a competition? According to Dr Bechtolsheimer, it depends on your horse’s training at home. The better the horse, the longer it takes to settle at competitions. Rhythm and relaxation are the most important qualities to achieve at a show to provide a positive experience.

Pillar E: maintenance

The key here is that rider, trainer and professional work as a tight team with excellent communication.



Photo by Helen Richmond Photography

“Everyone is a critic, but can everyone critically analyse?”

Passive maintenance entails finding the right specialists: vet, farrier, dentist, physio, chiropractor. Professionals that understand your needs, that talk and will learn from each other. A good team has synergy and confidentiality. “We want to talk and communicate,” said Dr Bechtolsheimer. “Rather than be defensive and mask problems. If you don’t talk about it, no one can really help you.”

Active maintenance happens through good riding, stating that: “Good riding is the best physiotherapy for the horse” and further that: “The best physiotherapist can’t compensate for bad riding.”

Damage-limitation through clever riding, exercises, treatment and observation all start with the rider’s independent seat and gradual warm-up daily. The rider should know both the strengths and weaknesses of his or her horse. Riders should focus on turning the weakness (for example, asymmetry) into strengths. Importantly, he remarked that unrecognised one-sidedness is one of the biggest causes of injury and that 23 hours locked up in a stable is a disaster for any horse.

Prevention is achievable

“Training horses is a long-term process only ending at retirement,” explained Dr Bechtolsheimer, whose daughter trained and won team gold in Dressage at the 2012 Olympics on Mistral Hojris. “Alf competed until 18 years young, having trained for 15 years. To do this you need

a system. Success is much more than buying a talented horse and teaching it some tricks. You might get lucky, but if you want to replicate success over and over, you need a system, which requires careful planning, maintenance and prevention of accidents.”

The next 10 years

Dr Bechtolsheimer got me critically thinking about my own training and coaching philosophy, about the importance of evidence-based knowledge to optimise horse welfare and performance. How differently will I do things in 10 years’ time?






As I evaluated my knowledge, values, opinions and beliefs based on my experiences, I couldn’t help but wonder about the future of equitation science. How will research yet to be done shape my training and coaching philosophy over the next 10 years?

Inspired, that evening I booked accommodation for the HIO conference of 2015 titled ‘Training, Therapy and Performance’. It will take place on 28th February and 1st March in Warwickshire, UK. I also registered for the 10th ISES Conference on ‘Equine Stress, Learning and Training’, taking place in Denmark on 6-10th August, 2014 and the Equitation Day at the BEVA Congress on 10th September in Birmingham, UK. And, of course, I will share these learning opportunities with Horses and People!



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Dr Bechtolsheimer's 5 Pillar approach to horse training

A	B	C	D	E
Approach to training	Basic training	Teaching movements	Competition	Maintenance
				
Fair, partnership, kindergarten teacher. Hard, dominant, unforgiving. Humanising, spoiling, confusing.	Trust, obedience, balance, physical strength, fitness.	According to scales of training. According to progress in column A and B.	According to progress in column C.	Passive (to delegate): Vet, Farrier, Dentist, Physiotherapist, Chiropractor, Nutritionist. Active (me): Physio through riding, damage-limitation, exercises, treatments, observations.

Adapted from Dr Bechtolsheimer's presentation