

Winter 2020

IH



Plus much
more inside...

Start
NOW for
healthy
grass

FREEDOM TO FORAGE

Do horses really
know best?

TRAIN A HORSE
to Stand
PERFECTLY
Still to Mount

*You've
got this!*

Be **INSPIRED**
by our IH
**SUCCESS
STORIES**

THE
12
.....
**MINDFUL
DAYS** of
Christmas



By SUE PALMER

“The Summit was presented online by world-class lecturers.”

Assessment of back pain includes observing the horse in standing and moving, as well as palpation.



2020
CONFERENCE
REPORT

IntelligentHorseman.com.au

Centaur Biomechanics INTERNATIONAL EQUINE SPORTS SCIENCE VIRTUAL SUMMIT

At the beginning of October, Sue Palmer, MCSP, IHRA, ACPAT and RAMP Chartered Physiotherapist, BHSAI, attended the 2020 Centaur Biomechanics International Equine Sport Science Virtual Summit Intelligent Horsemanship. Here is her overview of this intensive and informative programme.

I love learning, and I love writing, so on a wet and windy Saturday (thanks, Storm Alex), I was delighted to be attending the Centaur Biomechanics International Equine Sports Science Virtual Summit on 3rd October 2020. My 8-year-old son Phillip was even more pleased, because it meant he had a whole day on his tablet (yep, I managed to listen to the lectures over the shouts of 'There's a wolf coming!' and 'You could rob that bank!' and 'Oh no, I died again!' as he played online with a friend - thanks Roblox and Minecraft!).

The Summit, which was due to take place at Hartpury, was presented online by world-class lecturers and by the end of the day my brain was suitably fried. I have to say I found it helpful being able to soak up the information at home in

my own surroundings, with coffee and chocolate biscuits (oops - sorry diet!) on tap, and able to write my notes on my iPad while I watched the Summit on my laptop and looked things up on my phone. Multi-tasking at its best!

There was so much to take in that I can only touch on each lecture here, but I hope to provide in-depth articles on some of the subjects at a later date. One of the 'benefits' of the online format was that there were only two 15-minute breaks through the day (as opposed to the usual half-hour coffee break in the morning and afternoon, and hour-long lunch break, to enable all female attendees time to get through the queue for the loo). So between 8.30am to 5.00pm, there were 8 lectures from 8 experts - a lot of information to take in. >>

2020
CONFERENCE
REPORT

www.equinereports.com

Centaur Biomechanics INTERNATIONAL EQUINE SPORTS SCIENCE VIRTUAL SUMMIT

This page: In the treatment of back pain, make sure that any lameness has first been ruled out or addressed. Right: The back is a link between the front and hind legs, and becomes more rigid when the horse is hindlimb lame.

“When the pain is gone, the brain does not always correct the movement, and so it may continue to be adaptive...”

» Here are some of my key take-aways from the conference:



Dr Andrew Fiske Jackson

SUBJECT:
SURGICAL
OPTIONS FOR

BACK PAIN: CASE SELECTION TO OPTIMISE OUTCOMES

TAKE-AWAYS

- In the treatment of back pain, make sure that any lameness has first been ruled out or addressed.
- Focus on exercise-based therapy, with the development of a core stability program. This applies whether or not the horse goes for surgery.
- Ensure that back pain exists, through measuring the movement of the back and assessing the horse's response to pain relief (Bute, and nerve blocks of the back).
- Consider whether surgery may be the best long term option, as some studies suggest.



Associate Professor Thilo Pfau

SUBJECT: THE BACK
AS A FUNCTIONAL

LINK BETWEEN THE FRONT & HIND LIMBS: A (BIO) MECHANICAL PERSPECTIVE

TAKE-AWAYS

- Lameness and back problems co-exist.
- There is a 'mechanism' for unilateral (one sided) lameness. More movement = more force, less movement = less force, and a lame horse will put less force through the lame limb.
- The 'law of sides' is a description of a compensatory mechanism which leads to a horse with a true left fore lameness perhaps appearing right hind lame, and a horse with a true left hind lameness perhaps appearing left fore lame. I.e. a true forelimb lameness may make the horse seem lame on the opposite hind, and a true hindlimb lameness may make the horse seem lame on the forelimb on the same side.
- The back is a link between the front and

hind legs, and becomes more rigid when the horse is hindlimb lame. This is what causes the hindlimb lameness to create the illusion of a forelimb lameness on the same side as the lame hind leg (as opposed to the hindlimb lameness appearing to be on the opposite side when the horse is forelimb lame).

- Tools such as the Equigait are now available to make investigation of lameness more accurate.



Dr Sarah Hobbs

SUBJECT: EQUINE
LOCOMOTION
ON CIRCLES

TAKE-AWAYS

- On a circle, the horse weight bears for longer through the inside limb than through the outside limb.
- There is a more vertical orientation of the body (the horse is more upright) when the inside limb is on the ground.
- The location of the centre of pressure under the hooves influences the stresses within



tissues. The tissues on the inside of the hoof are stressed by effectively being 'squashed', whilst the tissues on the outside of the hoof are stressed by effectively being 'stretched'.

- Speed of the horse, radius of the circle, surface and banking (sloping on the outside of the circle) all influence turning mechanics, and the forces placed upon the horse.



Dr Anna Bystrom

SUBJECT:
THE SADDLE
PRESSURE

PATTERN – A LITTLE BIT OF EVERYTHING

TAKE-AWAYS

- Measuring the pressures underneath a saddle is helpful, but also has its limits.
- Knowing how to read the pressure pattern is essential. It's not so much a saddle pressure 'picture' as a saddle pressure 'movie'.
- There are many different options available to measure saddle pressure, from different companies, and it's important to research the options.

- The saddle pressure picture can be useful in research, measuring saddle fit, and assessing back pain and lameness.
- The saddle pressure picture is a combination of saddle fit and type, rider's movement, and horse's back and shoulder movement.



Dr Russell MacKechnie-Guire

SUBJECT: THE USE
& APPLICATION

OF THERMOGRAPHY TO QUANTIFY SADDLE FIT

TAKE-AWAYS

- Thermography can be useful, but its sole use in the context of saddle fitting should be applied with caution.
- The thermographic data in a recent study did not appear to be representative of increased saddle pressures (as measured by the Pliance system).
- In this study, pressures under the saddle were more symmetrical (more even) when the horse was ridden in a correctly fitting saddle (as assessed by agreement of 5 qualified saddle fitters) compared to a wide fitting saddle or a narrow fitting saddle.
- In all cases (correct fit, wide fit, narrow fit), there was more pressure under the front of the saddle than under the back of the saddle. This pressure was greater with the wide fitting and the narrow fitting saddle. This pressure was evident on the data from the Pliance pressure pad, but not on the thermographic data.



Dr Kevin Haussler

SUBJECT:
PHYSICAL
EXAMINATION &

ASSESSING BACK SHAPE RELATED TO SADDLE FITTING

TAKE-AWAYS

- 'Back pain' in the horse can mean many different things.
- Assessment of back pain includes observing the horse in standing and moving, as well as palpation (feeling) of the soft tissues and bony landmarks, and feeling the joint range of movement through the neck, back and rib cage.
- Whilst shoe size (for humans) has been standardised for around 100 years now, there is as yet no standardisation of saddle size.
- One of the difficulties in saddle fit is the difficulty of measuring the curves in the horses' back. One of the many complications of this is that the horse changes shape over time.
- A card system in standardising measurement of the horse's back looks promising. This is commercially available from www.demistane.com.au (Equine Back Profiling System).



Dr Nicole Rombach

SUBJECT:
CLINICAL
DYSFUNCTION

IN THE HORSE: A NEUROMOTOR CONTROL APPROACH TO THERAPEUTIC INTERVENTION

TAKE-AWAYS

- Pain creates adapted movement.
- When the pain is gone, the brain does not always correct the movement, and so it may continue to be adaptive in the long term.
- Whilst short term movement adaptation is beneficial (for example, limping when the horse has an abscess), long term movement adaptation is detrimental.
- Core strength is essential in rehabilitation of movement.
- "Use it or lose it" and "Use it and improve it" are helpful concepts to remember in rehabilitating movement following pain or injury.
- Resolving pain and rehabilitation involves team work and clinical reasoning. First the pain must be resolved (or the movement will continue to be adaptive), then the movement can be retrained.



Dr Rachel Murray

SUBJECT:
MUSCLE
DEVELOPMENT

IN REHABILITATION: WHAT CAN WE USE?

TAKE-AWAYS

- There are lots of reasons to focus on muscle development during rehabilitation following pain or injury. One of these is improved static (standing) and dynamic (moving) stability.
- First of all, the pain must be taken away.
- Some of the options for improving muscle development and retraining correct movement patterns include exercises in the stable (for example, carrot stretch(es), pole work (especially valuable in walk), training / rehabilitation aids (such as the Equiband), horse walker, treadmill (dry or water), and ridden work (including flat work and jumping).
- A rehabilitation programme should always be individualised to the specific horse, as each horse responds in its own way.

Thank you so much to Intelligent Horsemanship for sponsoring me to attend this Summit. I'm off now for a well-earned glass of wine... ☺