

Centaur Biomechanics

Winter Newsletter - 2016

Issue 5 – December 2016



CENTAUR
BIOMECHANICS

Christmas is Coming...

We hope that you are well and looking forward to Christmas. It has been a busy time at Centaur, as 2016 marked ten years of Centaur Biomechanics and to celebrate we hosted a charity ball in aid of two amazing charities: Myton Hospice and the Air Ambulance. As well as organising the charity ball, we held our annual “Rider Conference”, “Equine Sports Science Seminar” and popular biomechanics courses. The latter part of the year has also seen five research projects nearing completion. With that comes data analysis and paper writing; excitingly four papers have been submitted with Centaur as lead author and a further four papers as co-author. We have also been busy with our popular rider biomechanics clinics running in all corners of the UK and Europe, and working with the Dutch Mounted Police. This newsletter will give a little insight on to some of the goings on....

Keep up to date with news, courses, products and events on our new and improved website.

www.centaurbiomechanics.co.uk

www.visualisesportsear.com

Equine Sports Science Seminar

This year saw the introduction of our Equine Sports Science Seminar, attracting delegates from all over the world to listen to world renowned speakers presenting some of the latest research in equine sports science. Russell from Centaur, presented his latest research looking at horse and rider interaction, this interactive presentation featured an array of research from the effect that saddle roll, half pads, girths and saddles have on the locomotion of the horse and associated pressures beneath the saddle. Russell also discussed the influence of the rider and presented his research looking at rider perceptions versus objective measures; in this study riders were asked to sit on a pressure mat and when they felt they were weighting their seat bones equally, objective measures were taken. It was found that, despite riders feeling they were sitting symmetrically, they were weighting their left seat bone more than their right. Richard Coomber, veterinarian and leading light on modern day kissing spine surgery, presented his research on kissing spine and his approach to treating, managing and rehabilitating the horse with kissing spine.

Mr Coomber presented evidence supporting a new surgical technique as opposed to the more conventional process where the spinous process is dissected. Stuart McGregor, equine osteopath, presented his approach to osteopathy and discussed his techniques. He also discussed the link between saddle roll and the possible two curvatures that the horse has in the spine. The afternoon was an interactive talk, dissection and demonstration from Professor Renate Weller and her team from the Royal Veterinary College.

Professor Weller discussed the mechanics of the horse, how and why horses injure, coupled with why they are amazing athletes – discussing moment arms, force production and failure rates within key structures - the audience were gripped. The finale was when Professor Weller put a distal limb in the strain gauge and applied load then cutting through the SDFT, then the DDFT and suspensory. The seminar provided a great insight in to some of the latest research within equine sports science.

Next year's seminar is **Saturday 7th October 2017** and we are delighted that we have **Professor Hilary Clayton** with us presenting her huge portfolio of research.





2017 Course Programme

Delighted that every course scored over 9.85/10



Centaur runs a busy biomechanics course programme and we are delighted as ever that every biomechanics course we have has scored over 9.85. These courses are huge fun and provide a great “think tank” where like-minded people get together and learn, inspire and take away skills which they can use to help optimise health, soundness and performance. This year we had delegates from Australia, Canada, America and Germany, as well as from all corners of the UK. We have also run courses for ACAPT, IRVAP and SMS and are very pleased that we have been commissioned to run them in 2017 also. We have started preparing next year’s material. Next year sees the start of a new course “back biomechanics and horse & rider interaction”, which will take a look at the biomechanics of the equine back and will discuss in detail the mechanics of the saddle, saddle fit and how to evaluate the horse and rider system. We are delighted that SMS Master Saddler, Mark Fisher, will be joining us on these courses delivering the saddlery element. The courses are a great way to learn and understand further the influence of the rider and how best to manage horses. Our 2017 course dates are on the website.

Dates Online for - 1 Day Biomechanics Courses, 2 Day Biomechanics Courses, Dressage Training Camps, Rider Conference and Equine Sports Science Seminar

**** Save the Date ****

Improve your Riding & Confidence

Conference V5

10th/11th June 2017





After nine months of planning, Saturday 29th October saw the Centaur Charity Ball celebrating 10 years of Centaur Biomechanics, in aid of Myton Hospice and The Air Ambulance. The night was a great success, welcoming over 200 guests from all over the world to help us celebrate 10 years and raise money for two worthy charities. On arrival guests were welcomed with a drinks reception before enjoying a fabulous three course dinner at the Chesford Grange.



During dinner the “chariot” raffle, donned with 20 metres of sparkling lights and helium balloons, provided the perfect platform for four fabulous prizes: a night’s stay at the Chesford Grange, a year’s membership of Warwick race course, 4 tickets to Warwick Castle and a photo shoot for horse and rider – fabulous raffle prizes and a massive thank you to those who provided them.



The charity auction was interactively insane, we recruited prizes which money cannot buy. Prior to the ball we had secured: a private viewing of The Kings Troop and The Royal Mews, Buckingham Palace, a morning at Carl Hester’s stables, a Jousting experience day with The Knights of Middle England, a session in the air ambulance flight simulator and a full body thermal scan. However, on the day we secured two more prizes: a holiday for six to Mexico and a bottle of vintage whisky from the Falklands War. As you can imagine these were high value lots, helping us to raise a grand total of over £10,000.





Improve your Riding and Confidence Conference V5

10th and 11th June 2017

Moulton College, Northampton

Our rider conference is becoming a staple in the equestrian's diary. The atmosphere of our conference has been described as inspirational, motivational, educational and fun. Our goal is to deliver world class speakers. This year's conference was even bigger and better. We were honored to have Andrew Hoy - International eventer and 7 time Olympian, Judy Harvey - GBR Dressage and FEI List 1 Judge, Dr Rachel Murray - Researcher and veterinarian, Ben Benson - BEF Eventing Farrier, Russell Guire - Centaur Biomechanics, Helen Mathie - Chartered Veterinary Physiotherapist, Lindsay Wilcox Reid - Equi Pilates, Alex Jessett-Equine Dentist, Mark Fisher - Master Saddler and BEF consultant saddler present. On the Saturday we had an array of lecture demos covering: Training the young/ advanced dressage horse, what judges look at- explained by Judy Harvey; training horses from novice through to advanced, followed by Andrew giving an inspiring presentation on preparing for 7 Olympics. Russell presented his research and discussed ways to optimise horse and rider interaction We also had a leading vet and researcher, Dr Rachel Murray, talking about ways to optimise soundness and performance, including warm up and cool down, travelling and much more. Farrier Ben Benson provided an interactive talk on shoeing for performance. New for this year was our interactive "Carousel session": 6 interactive workshops featuring rider Pilates, veterinary, farriery, dentistry, equine physiotherapy and saddlery, all designed to give delegates a hands on experience from leading industry professionals. We were honoured to have delegates from all corners of the UK, Holland, Germany, Italy, Canada, America and New Zealand attending. A massive thank you to our sponsors: Sync Thermology, Back in Action, Fairfax Saddles, Visualise Sportswear, Mirrors for Training, Saracen Horse Feeds and Equestrian Surfaces. Next year's rider conference is on Saturday 10th and Sunday 11th June 2017 and is set to be even bigger. We are delighted we have silver medalist, Gareth Hughes, and an excellent line up of internationally renowned speakers.



International Conferences ICEL and ISES

This year Centaur has been busy with many research projects looking at horse and rider interaction and we are delighted that our research has been accepted for international conferences. A project looking at the effect that saddle roll has on rider biomechanics was presented at the International Society of Equitation Science in France. We also had three projects accepted at the International Conference of Equine Locomotion, London. We were delighted to present a poster on the effect that saddle position has on the locomotion of the horse. We also co-authored a second poster where we looked at the use of smart phone technology in detecting basic riding positions. These posters proved hugely popular and created a lot of interest. We were honoured that one of our research projects was presented in front of an international audience made up of some of the world's leading researchers. Here we presented our project looking at the difference between rider's perceptions and objective measures. In this study riders were asked to sit on a pressure mat and when they felt they were weighting their seat bones equally, objective measures were taken. It was found that despite riders feeling they were sitting symmetrically they were

weighting their left seat bone more than their right. We have some new exciting projects starting in December 2016, so please keep an eye on our social feeds for research updates including published projects and initial results.

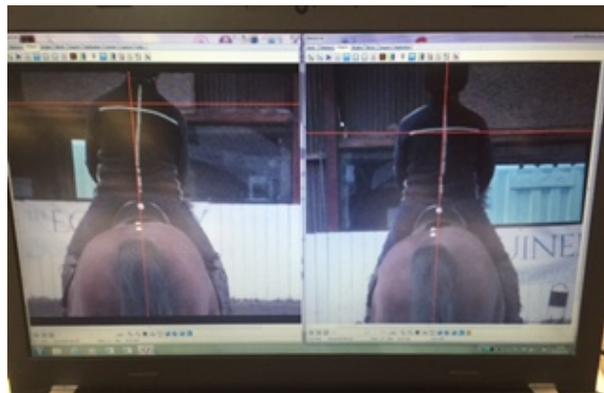


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www.centaurbiomechanics.co.uk



Rider Biomechanics Clinics

These sessions are very popular with 98% of clinics becoming full which is fabulous. We have updated the sessions slightly and ask riders to complete short questionnaires before they ride, which allows us to monitor any trends. Over the year we may be able to provide the industry with invaluable information, from which we can all learn. We also have a new FAQ sheet which helps organisers plan and manage their clinics. If you are interested in hosting a clinic or joining one, please email Sharon@centaurbiomechanics.co.uk or follow the website or social media.



Looking ahead.....

As this year draws to a close, we look forward to an exciting 2017. The year starts with a busy rider biomechanics clinic programme and the start of our biomechanics course programmes which feature our new course: "Back Biomechanics and Horse & Rider Interaction". We also have new Visualise products in the testing phase which will be out early next year, so it's going to be full steam ahead on January 5th 2017. It's going to be fun....Until then, on behalf of the Centaur team I would like to wish you a fabulous Christmas and most fabulous New Year.



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