

Equine Locomotion, 2 Edition

Table of Contents:

History of Locomotor System- van Weeren

- from gait to performance labs (Denoix/Dyson, McIlwraith/Stover, Lekeux/Marlin)
- development of the professionals themselves- Loomans

Measurement Techniques for Gait Analysis- Clayton

- Treadmill / Force plate- Weishaupt
- High speed camera / video- Wilson
- Inertial systems for kinematic analysis- Clayton
- Ultrasonic systems for kinematic analysis- Denoix
- Pressure mats hoof, saddle- van Heel / de Cocard
- Application of different types of transducers- Davies, Thomason
- Clinical instruments: flexometer etc.

Signal=Waveform/ Statistical analysis of Biomechanical Data -

Burn (Keegan / Peham) – new chapter

The Neurobiology of Locomotor Development- Bowker

- EMG: Wijnberg (Nollet / Spadiavecchia)

Inter-limb Coordination- Collins

Intra forelimb Coordination- Clayton

- Chateau
 - chapter above and below: separate chapters in new edition
- Intra hind limb Coordination- Clayton

The Role of the Hoof and Shoeing- Van Heel (Back)

- Natural/barefoot/physiological foot and trim – Bowker

Gait Adaptation in Lameness- Keegan

- Evidence for Prepurchase- Sloet / Dyson
- Validity of Imaging techs- Schramme
- Ataxia quantification- Licka

The Neck and Back- Haussler

The Effects of Conformation- Crevier (/ Weeren – EVJ Special Edition)

Genetics- Back

- Equine Genome Scan- Binns (Bailey / Barrey)
- Breed differences: WB/CB/Arab / TB/SB/QH- Rosie -new chapter
- Outcome of epidemiological studies- Ducro & Arendonk / WUR

Exercise Effects on the Skeletal Tissues- Back

- Bone- Rogers / Firth // Stover
- Cartilage- Brommer // McIlwraith/Kawcak/Frisbie
- Tendon- Goodship / Smith
- Muscle- Valberg // Wijnberg

Performance in Equestrian Sports- Clayton

- Dressage- Clayton
- Jumping- Weeren (Santamaria)

Horse rider interaction- van Weeren

- Ergonomics- Gomez (Weishaupt, Johnston/Roepstorff, Weeren)
- Saddle- de Cocq
- Bit, rein tension- Clayton - new chapter
- Rider kinematics and EMG- Clayton

Locomotor Behaviour & Welfare- Dierendonck - new chapter

Rehabilitation- Stubbs - new chapter

Metabolic Energetics of Locomotion- Marlin (Lekeux)

Mechanics Analysis of Locomotion (Scaled, Modelling)- vd Bogert (Bobbert, van Leeuwen, Wilson)

Motion capture and animatio- Clayton/Kaiser/Malinowski - new chapter